ABSTRACT

Title of Dissertation: STRATEGY AWARENESS-RAISING FOR SUCCESS: READING STRATEGY INSTRUCTION IN THE EFL CONTEXT

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Researchers and educators have made great efforts to be conscious of students' wide and varied learning processes and to meet individual learners' different needs in one classroom with well-conceptualized and balanced strategy assessment and instruction. Reading is considered very important in academic worlds, including Korea, where English is learned as a second or foreign language (ESL/EFL). Ongoing debates about reading strategy instruction, as well as a lack of methodological consistency in previous language studies, make it particularly difficult for EFL teachers to know how to implement strategy instruction in their classrooms.

Therefore, this study was designed to examine the effect of reading strategy instruction (a) on strategy use while reading in a target language (L2) and (b) on L2 reading comprehension. The secondary purposes of this study were to examine (c) the

effectiveness of color-coding as a new strategy assessment tool and (d) the influence of L2 reading strategy instruction on reading in a native language (L1).

The results were very interesting, both theoretically and in practice. First, reading strategy instruction helped learners develop reading strategy knowledge and raise the reading strategy awareness. Second, reading strategy instruction also promoted text-specific strategy use, but not general strategy use, probably because of the short period of the intervention. In a wash-back process, reading strategy instruction, though focused entirely on L2 reading strategies, also improved Korean (L1) reading strategy use. Third, reading strategy instruction helped learners improve their L2 reading comprehension. Fourth, participants' prior knowledge of English grammar served as a confidence-building comfort zone for learning how to use (a) new reading strategies and (b) a new reading strategy assessment tool, color-coding. Fifth, the innovative color-coding technique proved to be effective for measuring text-specific reading strategy use. In sum, the Korean EFL participants benefited in numerous ways from reading strategy instruction.

STRATEGY AWARENESS-RAISING FOR SUCCESS: READING STRATEGY INSTRUCTION IN THE EFL CONTEXT

By

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CHAPTER 1: INTRODUCTION

Pedagogy has resisted innovation; resistance is the first natural reaction to change because change causes people to feel a loss of identity, of belonging, and of mastery (Moran & Brightman, 2001; Rantz, 2002). Classroom settings, teaching materials, and testing systems have changed little over time, particularly when compared with mass media or the Internet industry. However, once people admit the change will be beneficial, they tend to actively commit to the change (Bovey & Hede, 2001). Accordingly, the field of education has recently expressed a desire to change the way it does business: to be conscious of students' wide and varied learning processes. The U.S. *National Council for Accreditation of Teacher Education [NCATE]* (2002) announced that every pre-service teacher in an accredited teacher preparation program should have an understanding that every student learns differently. South Korea's *Ministry of Education* (2003) publicized that the Eighth Korean National Curriculum should emphasize individual differences in terms of academic abilities. Concomitantly, Korean researchers and teachers are publishing textbooks emphasizing the variety of individual learners' proficiency levels.

In an academic environment, reading is considered more crucial than any other language skill (Alfassi, 2004). Moreover, "reading well" has been lauded for a century as one of the most crucial human accomplishments (Huey, 1908). Accordingly, many researchers have made great efforts to find a better way to read well, and most educators would agree that using reading strategies helps learners read well.

Reading English well (in accordance with other skills such as speaking, listening, and writing well) is a goal of English as a second/foreign language (ESL/EFL) learners as well as of native English speakers. However, much more research has been accomplished in the field of reading a first language (L1) than in the field of reading a second language (L2), so more research is recommended to advance the ESL/EFL goal of reading English well.

The term L2 *strategies,* in this study, is defined as specific actions or thoughts that learners use, with some degree of awareness, to learn another language. Strategies do not necessarily work in the same way for every student. A strategy that is highly useful for one learner might not be very effective for a different learner. Even unsuccessful L2 learners are found to use many strategies, although they use them in a random, untargeted, inefficient, and ineffective way (Nyikos, 1991). In short, students need help identifying their current strategy use, learn how to choose strategies well, and to learn how to use strategies effectively. Teaching to meet individual learners' different needs in one classroom can only be possible with very well-conceptualized and balanced strategy assessment and instruction.

Therefore, this dissertation explores how effective reading strategy instruction is in promoting strategy use and improving reading comprehension. It also examines how a new assessment tool is used in a crowded Korean EFL class and whether strategy instruction causes transfer from L2 to L1 reading strategy use. This chapter presents: (a) statement of the problem, (b) purposes of this study, (c) research questions, (d) significance of this study, (e) definitions of key terms, (f) key design decisions, (g) limitations, and (h) organization of this dissertation.

Statement of the Problem

The problem includes: (a) ongoing debates on how to teach reading strategies, especially in ESL/EFL contexts; (b) difficulty in synthesizing L2 reading studies due to lack of methodological consistency; (c) the need to assess influences of reading strategy instruction both on strategy use and reading comprehension; (d) large EFL classes in Korea causing teachers to be reluctant to teach reading strategies; and (e) the need to examine the influence of L2 reading strategy instruction on L1 reading.

Research has uncovered much about reading strategies, using various approaches to assess both L1 and L2 (Afflerbach, 1990; Anderson, 1991; Boekaerts, 2002; Oxford, 1996c; Oxford, Cho, Leung, & Kim, 2004) and to teach reading strategies with different teaching models and different levels of explicitness (Alfassi, 2004; Dole, Brown, & Trathen, 1996; Chamot, 2005a; Duffy, 2002; Roehler & Duffy, 1984; Ikeda & Takeuchi, 2003; Oxford & Leaver, 1996; Palincsar & Brown, 1984; Pressley, El-Dinary, Gaskins, Schuder, Bergman, Almasi, & Brown, 1992). However, ongoing debates about how to teach reading strategies and what kinds of strategies to teach (Alfassi, 2004; Duffy, 2002; Palincsar & Brown, 1984; Pressley, 2000; Pressley et al., 1992) make it difficult for teachers, especially in the ESL/EFL contexts, to implement strategy instruction in their classrooms.

Moreover, Bernhardt's (1991) meta-analysis of the previous second language data-based studies conducted since 1973 found that the wide range and variability in subject groups, language groups, proficiency levels, experimental tasks, and methodologies made it impossible to synthesize the information of L2 reading (Bernhardt, 2000; Fitzgerald, 1995; Garcia, 2000). Many distracting factors such as

native languages and experimental tasks should be controlled or at least explained to see whether any new intervention is effective when helping L2 learners.

The effectiveness of strategy instruction has generally been assessed in terms of (a) either strategy use (Davis & Bistodeau, 1993; Kang, 1999; Li & Munby, 1996; Young, 1993; Vandergrift, 2003a) or (b) reading performance (Anderson, 1992; Brown & Day, 1983; Brown, Pressley, Van Meter, & Schuder, 1996; Carrier, 2003; Dadour & Robbins, 1996; Dole et al., 1996; Levin & Pressley, 1981). It is necessary to examine the longitudinal influences of strategy instruction on strategy use *per se*, after which the relationship between strategy changes and reading comprehension will be much more meaningful.

South Korea's classes are more crowded than those in the U.S. or Canada. There are about 40 students in one classroom, and each university or college teacher has to teach four to five different classes a week. The large number of students makes Korean teachers hesitant about employing qualitative methods to measure or teach EFL reading strategies as suggested in previous research, which has generally been focused on the U.S. or Canada (Pressley, 2000; Pressley et al., 1992). Strategy instruction and assessment materials appropriate for crowded classes are needed.

It has been researched whether existing native language proficiency (Cummins, 1981, 1983) or acquired native language skills (Clarke, 1980; Cummins, 1979, 1986) benefit when learning a second/foreign language (Collier & Thomas, 1989). However, little research has been conducted to examine whether the transfer from L2 to L1 (including L2 reading strategies) would help learners improve proficiency in both languages (Chamot, 2001, 2007).

Purposes of This Study

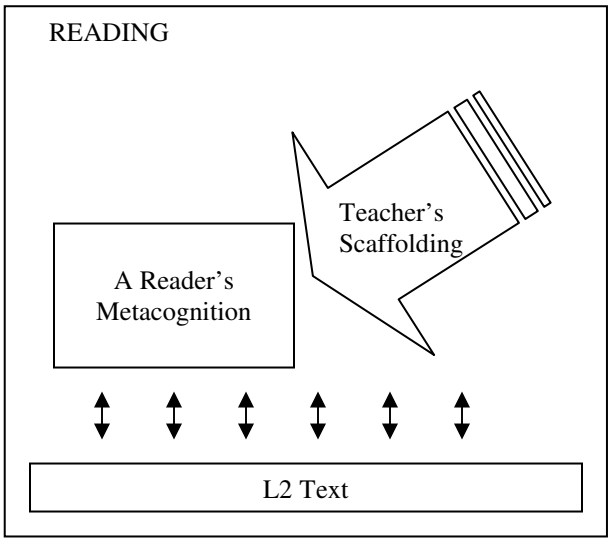
The main purposes of this study were to examine (a) the effect of reading strategy instruction on reading strategy use and (b) the effect of reading strategy instruction on reading comprehension. The secondary purposes of this study were to examine (c) the effectiveness of color-coding as a new strategy assessment tool along with other assessment tools and (d) the influence of reading strategy instruction on the transfer of reading strategies from L2 to L1 (wash-back effect).

By exploring the effects of reading strategy instruction on Korean EFL university students, this study aimed to develop and test teaching materials including reading strategies selected from major research from both L1 and L2 contexts. The procedure from the Cognitive Academic Language Learning Approach (CALLA) (Chamot, 2005b; Chamot & O'Malley, 1994b) was adapted to teach reading strategies (i.e., preparation, presentation, practice, self-evaluation, expansion, and assessment). EFL reading strategy items were adapted from: (a) the Reciprocal Teaching Approach (RTA; Palincsar & Brown, 1984) in L1 reading research; (b) the *Survey of Reading Strategies (SORS;* Mokhtari & Sheorey, 2002); and (c) the *Strategy Inventory for Language Learning (SILL;* Oxford, 1990) in L2 reading research.

CALLA and the RTA (Palincsar & Brown, 1984) were adapted because they were based on the cognitive-constructivist theory of reading (learning). This study was designed with a belief that students will learn and eventually control their reading strategies through proper scaffolding (Vygotsky, 1978), which is removed when no longer needed. The items from the *SORS* were adapted because it emphasizes the

importance of metacognitive and cognitive strategies in L2 reading, which conforms to the theoretical framework of this study (i.e., metacognition). The items from the *SILL* were also adapted because the *SILL* has been the most often and successfully used throughout Asia; moreover, it has been proven to be an effective standardized measure with high reliabilities throughout different ESL/EFL contexts and in terms of different factors such as gender, age, and learning styles (Chamot, 2007; Oxford, 2007). In sum, to help L2 readers read L2 text effectively, this study was designed to use two kinds of dynamics: metacognition as dynamics ongoing inside a reader and scaffolding as dynamics between the reader and a teacher (Figure 1).

Figure 1. L2 Learner's Reading Process: Interacting with an L2 Text Using Metacognition through Scaffolding

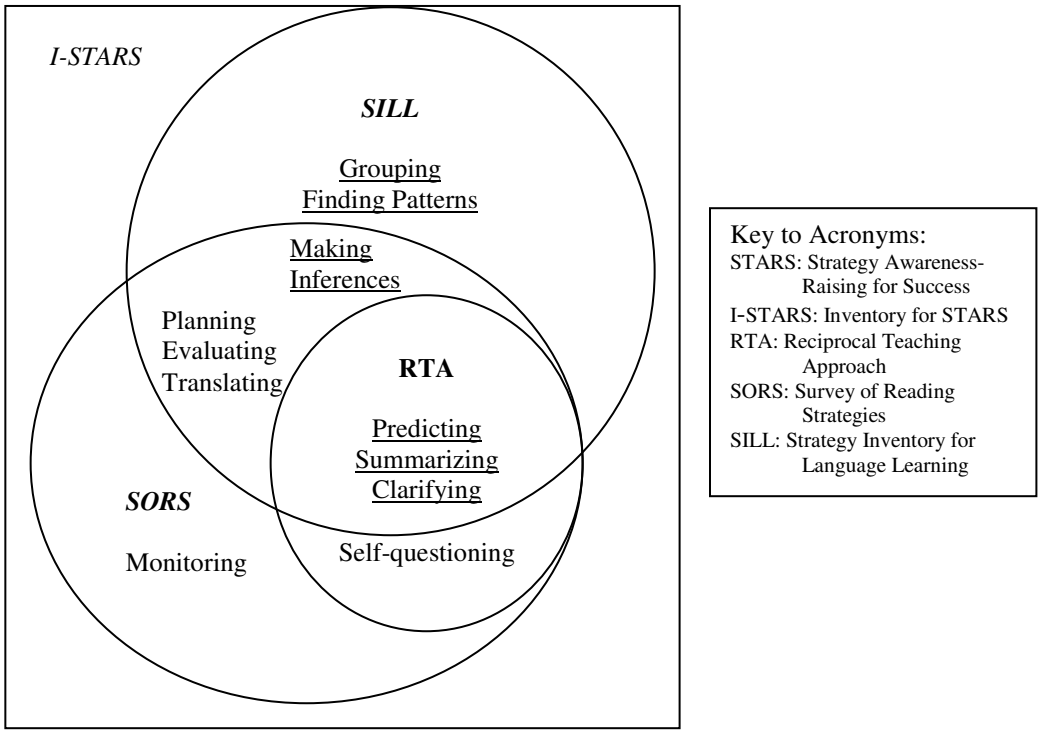


Note. This figure represents an L2 reader's reading process. An L2 reader interacts with an L2 text using metacognition and teacher's scaffolding, which is removed when no longer needed.

The adapted reading strategy instruction model is called Strategy Awareness-Raising for Success (STARS) in this study. The questionnaire to measure reading strategy use before and after the intervention was called the *Inventory for STARS (I-*

STARS). As seen in Figure 2, the *I-STARS* consists of 11 reading strategies, six of which were planned to be taught as part of the main purposes of this study. The CALLA procedure was adapted to teach each strategy (micro-procedure) and also served as a template throughout the whole semester (macro-procedure).

Figure 2. I-STARS and STARS*:* Strategy Items from RTA*, SORS,* and *SILL*



Note.

1. *I-STARS* consists of the 11 reading strategies, which were adapted from the RTA, the *SORS*, and the *SILL*.
2. Only six strategies (underlined) were explicitly taught with the STARS.
3. Planning, Evaluating, and Monitoring were excluded because those strategies were expected to be taught implicitly while learning Predicting (Planning), Clarifying (Monitoring), and Summarizing (Evaluating).
4. Translating was excluded because it is the most familiar to Korean EFL learners.
5. Self-questioning was excluded because a high student-teacher ratio made it difficult to take turns in dialogue to help students produce better questions as was done with a small group of students in the RTA.
6. Other strategies in the *SORS* and the *SILL* which were not adapted in this study were not listed.

This study was also planned to examine the effects of a newly devised assessment tool to measure learners' reading strategies effectively for crowded classes. To reduce difficulties when teaching large numbers of learners, during the intervention stage of this study, a new strategy assessment tool, color-coding, was incorporated.

Lastly, by assessing Korean EFL learners' Korean reading strategies before and after the intervention, it was expected to discover whether they would transfer the learned English reading strategies to their Korean reading strategies.

Research Questions

Based on these purposes above, this study addressed the following research questions. Regarding the main purposes, research questions 1 through 7 were explored while research questions 8 through 10 were examined for the secondary purposes.

Research question 1 concerns students' knowledge of reading strategies before and after the intervention. Research questions 2 through 5 deal with students' change in reading strategy use, including their baseline strategy use before the intervention. Research question 5 also concerns the effectiveness of a new strategy assessment tool, color-coding. Strategy use is not the same as strategy knowledge. Research questions 6 and 7 involve students' reading comprehension proficiency, as reflected by both reading comprehension test scores and students' self-ratings of English reading proficiency. The relationship between strategy use and reading comprehension was also examined.

Lastly, research questions 8 and 9 relate to the influence of students' improved L2 reading strategy use on their Korean reading strategy use. Specific research questions are listed below.

- Research Question 1: How does reading strategy instruction change students' knowledge of reading strategies?
- Research Question 2: Does reading strategy instruction relate to students' general reading strategy use? In other words, are there any significant differences in pre- and post- general reading strategy use between the strategy instruction group and the control group?
- Research Question 3: Does reading strategy instruction relate to students' text-specific reading strategy use? Put differently, are there any significant differences in pre- and post- text-specific reading strategy use between the strategy instruction group and the control group?
- Research Question 4: How does reading strategy instruction change students' attitudes toward reading strategies?
- Research Question 5: To what extent do students use strategies when reading a new text during and after reading strategy instruction?
- Research Question 6: Does reading strategy instruction relate to students' reading comprehension scores? In other words, are there any significant differences in pre- and post- reading comprehension scores between the strategy instruction group and the control group?
- Research Question 7: How does reading strategy instruction change students' self-rated English reading proficiency?

- Research Question 8: To what extent are students' English reading strategies transferred to their Korean reading strategies?
- Research Question 9: How does reading strategy instruction change students' Korean reading strategy use?

Significance of This Study

This study was expected not only to identify what reading strategies to teach and how to teach them on the basis of both L1 and L2 research, but also to examine the influence of reading strategy instruction on (a) students' reading strategy use and (b) their reading comprehension. The type of reading strategy instruction and the unique kind of strategy assessment used in this study could be used by teachers to facilitate more effective L2 reading. This study was hoped to model ways to promote EFL strategy knowledge and text-specific strategy use. This investigation would additionally demonstrate how teachers could help improve students' attitudes toward reading strategies and enhance not just the frequency but also the quality of strategy use.

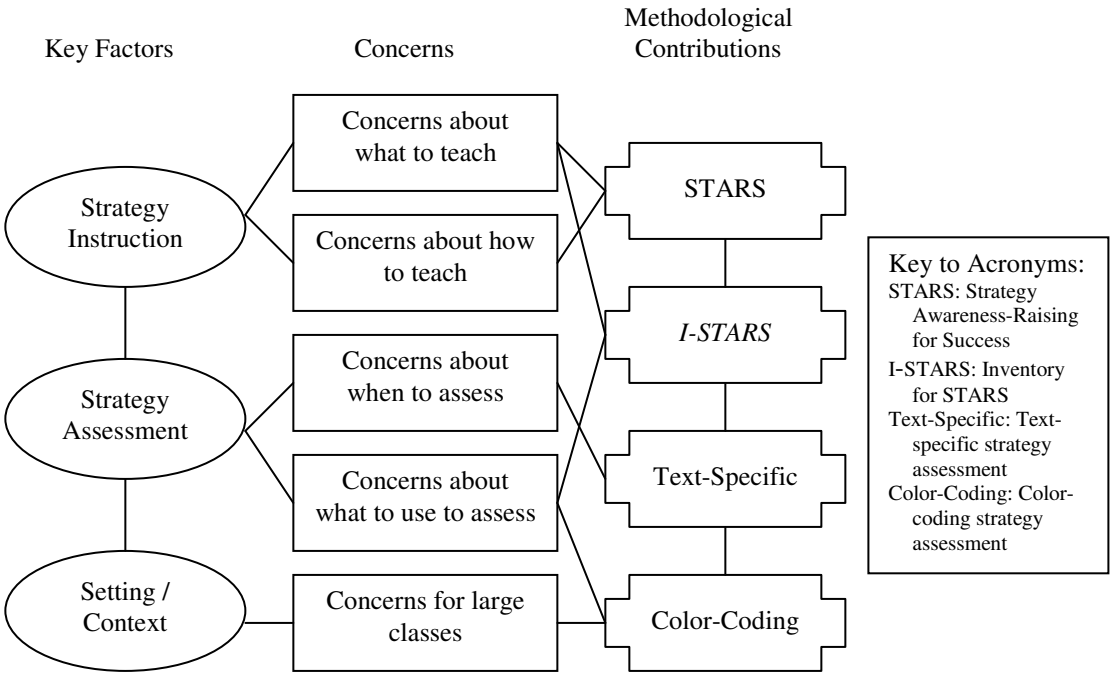
Moreover, this study was expected to reveal a strategy instruction wash-back effect; in other words, Korean EFL students might apply the English (L2) reading strategies when reading a Korean (L1) text. This transfer from L2 reading strategies to L1 reading strategies, through strategy awareness-raising, could help learners improve their overall reading proficiency, regardless of language.

One of the major innovations of this study was the use of a new strategy measurement tool, concurrent, text-specific color-coding[1], which was especially

[1] Concurrent self-reporting provided more and better data than retrospective self-reporting (Kuusela & Paul, 2000).

valuable for crowded classes but could be employed for any size of class. No prior studies have used students' color-coding for assessing strategy use, even though students have long used the strategy of color-coding for learning as in marking certain letters or words (Purcell, 1984; Schneider, 1996). This new mode of assessment could in the future contribute not only to strategy assessment but also to strategy instruction. The relationship among the key factors is presented in Figure 3.

Figure 3. Relationship among Key Factors, Concerns, and Methodological Contributions



Definition of Key Terms

The following are working definitions of key terms in this study.

Reading Strategy: A reading strategy specifically refers to "a deliberate action that readers take voluntarily to develop an understanding of what they read" (Pritchard, 1990, p. 275). Research has shown that greater understanding of reading

material results from using appropriate reading strategies (Dreyer & Oxford, 1996; Palincsar & Brown, 1994; Pressley, 2000). Therefore, reading strategy instruction in this study aimed to promote reading strategy use, in order to help students improve reading comprehension.

Strategy Awareness-Raising for Success (STARS): English (L2) reading strategy instruction adapted from L1 and L2 research for this study was called STARS. It aimed to teach the six reading strategies listed above to Korean EFL university students through raising the awareness of their reading strategy use with reflective activities.

Inventory for Strategy Awareness-Raising for Success (I-STARS): Students took the strategy inventory twice to measure their baseline strategy use before the intervention and to measure how much their strategy use increased after the intervention. This strategy inventory was called the *I-STARS* in this study, from which the six strategies of the STARS were chosen. It consists of 11 reading strategies (Predicting, Making Inferences, Summarizing, Finding Patterns, Clarifying, Grouping, Planning, Evaluating, Monitoring, Translating, and Self-Questioning), which were broken into 45 items in the *I-STARS*. This inventory measured both general reading strategy use (Research Question 2) and text-specific reading strategy use (Research Question 3).

General Reading Strategy Use (Measured by I-STARS): This study assessed the frequency of strategy use, using a Likert scale from 1 to 5, with 1 representing "Never or almost never true of me" (i.e., rarely or never used) and 5 representing "Always or almost always true of me" (i.e., always or almost always used). Change in

this frequency was considered to mean that students use the reading strategies by themselves outside of classroom while reading various texts.

Text-Specific Reading Strategy Use (Measured by I-STARS): This study also assessed strategy use in terms of whether students used or did not use the reading strategies on an immediately-preceding reading task. Students answered yes or no for each item instead of a Likert scale from 1 to 5. It was expected that strategy instruction would promote text-specific reading strategy use more than it would promote general reading strategy use.

Color-Coding Assessment: In this study, students were asked to place sticky color tags on the parts of a text, such as words, phrases, pictures, graphs, and tables, that they looked at while using each strategy. For example, when a student looked at the title and subtitles of a text in order to predict about the text before reading it (Predicting), he/she was supposed to place a red tag on the title and each subtitle. This assessment technique was called color-coding assessment in this study.

Color-Coded Text-Specific Reading Strategy Use (Measured by Color-Coding Assessment): In addition to the *I-STARS*, color-coding assessment was used to measure students' text-specific reading strategy use. Color-coded text-specific reading strategy use referred to students' use of the six reading strategies that they had learned from strategy instruction in this study. Because students placed sticky colored tags on relevant parts of a text when using only the six reading strategies taught in this study, it was effective to see whether students used the six reading strategies, including more specifically which strategies among those six and how often they used them.

Reading Comprehension: In this study, reading comprehension was defined as the process of figuring out the main idea of a text and/or the intention of an author beyond the abilities to decode words. Therefore, students' reading comprehension was measured by whether they were able (a) to grasp the main idea of a text, (b) to figure out the intention of an author, based on (c) the text-based information such as the meaning of words.

English (L2) Strategy Transfer to Korean (L1)—also known as Strategy Instruction Wash-Back Effect: This study examines whether students' English (L2) reading strategy use is transferred to their Korean (L1) reading strategy use after the intervention. A transfer usually occurs from a native language to a target language (Clarke, 1980; Cummins, 1979, 1981, 1983, 1986). Therefore, this transfer from English to Korean, influenced by English reading strategy instruction, is called a "strategy instruction wash-back effect" in this study.

Key Design Decisions of This Study and Why They Were Made

Key decisions were made about the research design. It is important to understand the justification for these decisions.

Decision 1: All Participants Were L1 Literate.

Many ESL studies emphasized the importance of comparing students with and without L1 literacy. This is because a key factor affecting L2 reading is whether learners have L1 literacy before they learn a target language. For example, a longitudinal study showed that immigrants with L1 literacy skills outperformed those without (Collier & Thomas, 1989), based on successful transfer from a native language to a target language reading (Cummins, 1981). In addition, Pritchard (1990)

showed the same metacognitive strategies employed when the participants were reading in their native language (Spanish) and in the target language (English).

However, all participants in the current study were literate in the L1. This matches population characteristics. According to the UNESCO literacy estimates from 1995 to 2001, Koreans' illiteracy rate is almost 0 % because Korean has an easy alphabetical system (International Labour Organization, n.d.). Moreover, the participants had higher reading proficiency than other Koreans, based on their *Test of English for International Communication (TOEIC)* scores[2].

Decision 2: Cognitive and Metacognitive Approaches Were Viewed as Similar across L1 and L2.

Based on the previous research addressing that second language processing is dependent on the first language processing (Barry & Lazarte, 1998; Bernhardt & Kamil, 1995; Kern, 1994; Koda, 2005; Parry, 1996), this study employed the view that L2 reading is similar to L1 reading. Reading requires the same cognitive and metacognitive processes regardless of language (Block, 1986; Carrell, 1991; Carson, Carrell, Silberstein, Kroll, & Kuehn, 1990; Fitzgerald, 1995; Saville-Troike, 1984). Text genre, such as expository and narrative, plays a more important role than language being learned in selecting reading strategies (Garcia, 2000; Green & Sutton, 2003). For these reasons, I felt comfortable adapting theories and models from both L1 and L2 reading research.

[2] Koreans' average scores of the *TOEIC* is 530 (Educational Testing Service [ETS], 2007) and most of the participants had higher than 500 (Table 3 in Methodology section).

Limitations

The limitations of this study stem from the use of newly adapted instruments, such as the *I-STARS* and color-coding assessment. These instruments have not been validated in previous studies, so the results should be carefully examined. Even though I revised the *I-STARS,* based on the interviews of Korean graduate students in three rounds (Willis, 2005), before administering it, I could not test it statistically. If more participants had tested the *I-STARS*, I could have run a factor analysis to validate it. Also, even though I tried to color-code while reading the texts of this study before, it would have been better to have examples of color-coding by university students, who might have similar reading proficiency to the participants in this study. Lastly, I wrote the reading comprehension tests, based on the textbook that the participants used, instead of using standardized tests like the *TOEIC*. Therefore, the results may not be similar to different kinds of reading comprehension tests.

Organization of the Chapters

This study aimed to examine the influence of strategy instruction on reading strategy use, the influence of strategy instruction on reading comprehension, the effectiveness of a new reading strategy assessment tool for L2 classes, especially in crowded classes, and the strategy instruction wash-back effect from L2 to L1 reading strategies. A general overview of this study, related issues, such as (a) statement of the problem, (b) purposes of this study, (c) research questions, (d) significance of this study, (e) definition of key terms, (f) key design decisions, (g) limitations, and (h) organization of the chapters in this dissertation have been addressed in Chapter 1.

In Chapter 2, previous research regarding reading strategy assessment and instruction is reviewed as follows: (a) relationship between L1 and L2 reading; (b) important dynamics related to reading; (c) reading strategy assessment, and (d) reading strategy instruction.

In Chapter 3, the methodology employed in this study is delineated in terms of (a) setting, (b) participants, (c) instrumentation, (d) description and schedule of intervention (strategy instruction), (e) data collection procedures, and (f) data analysis procedures according to research questions.

In Chapter 4, the results of each research question are described in the following order: (a) participants' prior knowledge of reading strategies (research question 1); (b) participants' reading strategy use and the effectiveness of color-coding assessment (research questions 2 through 5); (c) participants' reading comprehension proficiency (research questions 6 and 7); and (d) relationship between English reading strategy use and Korean reading strategy use (research questions 8 and 9).

Chapter 5 presents (a) in-depth discussion about the results, (b) the implications for future research and for teaching English in EFL settings, and (c) the conclusions of this study.

Summary of This Chapter

In this chapter, an overview of this study was provided. As background information, South Korea's educational trends were introduced to support the importance of teaching EFL strategies to meet the needs of different learners. Researchers and educators have made great efforts to be conscious of students' wide

and varied learning processes and to meet individual learners' different needs in one classroom with well-conceptualized and balanced strategy assessment and instruction. Reading is considered very important in ESL/EFL academic worlds, including those in Korea. Ongoing debates about reading strategy instruction, as well as lack of methodological consistency in previous language studies, make it particularly difficult for EFL teachers to know how to implement strategy instruction in their classrooms.

Therefore, this study was designed to examine the effect of reading strategy instruction (a) on strategy use while reading in a target language (L2) and (b) on L2 reading comprehension. The secondary purposes of this study were to examine (c) the effectiveness of color-coding as a new strategy assessment tool and (d) the influence of L2 reading strategy instruction on reading in a native language (L1).

CHAPTER 2: LITERATURE REVIEW

This chapter presents a comprehensive review of research on (a) the relationship between reading a first language (L1 reading) and reading a second language (L2 reading), (b) important dynamics related to reading, (c) reading strategy assessment, and (d) reading strategy instruction.

Relationship between L1 and L2 Reading

This section presents the previous research on and the debates about reading theories and studies related to L1 and L2 reading. Because this study investigates Korean English learners' L2 reading, this section will help in the understanding of L2 reading in relation to L1 reading.

L1 Reading

In order to show the trends in L1 reading research in the U.S., Gaffney and Anderson (2000) provided the percentage of articles with topics related to reading, published since 1965 in two major journals: *Reading Research Quarterly* and *Reading Teacher*. According to their graphs, compared to other terms, such as comprehension, whole text, and phonics, reading strategies began to receive recognition in the 1980s. They concluded that the terms related to reading, such as prior knowledge, whole language, and comprehension "ebb and flow on a short cycle" (p.72).

Even though the topics in trends have been diverse, a fair amount of research on reading has been steadily ongoing (Gaffney & Anderson, 2002). To summarize broadly, L1 reading researchers have examined lower-order reading skills (word-level processes or decoding) and higher-order reading skills (processes above word-level or

comprehension) (Pressley, 2000). At the beginning, Miller's (1956) theory related to short-term memory was employed to understand the relationship between decoding processes and comprehending processes. Because our short-term memory is limited in capacity, the act of decoding words should compete with the comprehension of words if an attempt to process both is done in a short period of time (National Reading Panel, 2000). Therefore, it is assumed that those who can decode words quickly can comprehend them better than those who need more time (Torgesen, 2002). Higher-order processing (i.e., comprehension) needs the information stored in long-term memory as well as decoding skills, which are processed in short-term memory (Pressley, 2000).

To better understand higher-order processing, many theories and models have been examined in relation to L1 reading: for example, the primary or most prominent L1 reading theory is schema theory which is that knowledge is stored in complex structures, but in a systematic way, called a schema (Pressley, 2000; Rumelhart, 1980). When we read a text, a schema can help us make correct inferences about the text content and the activated schema (also closely related to prior knowledge) can guide understanding (Anderson, 1978; Cromley, 2005).

While schema theory generally assumes top-down processing from activating proper schema when understanding a text, the interactive view of reading considers that reading involves both top-down and bottom-up processing (Rumelhart, 1985). Because reading is not a linear process (Goodman, 1970), decoding words and using prior knowledge interact with each other to construct meaning. One L2 reading researcher summarized two types of interaction: interaction between a reader and a

text and interaction among lower-order reading skills and higher-order reading skills to comprehend the text (Grabe, 1991).

Reading Comprehension

One of the main goals of reading theories and studies is to improve students' reading comprehension proficiency, which needs higher-order skills beyond the ability to decode words in a text (Pressley, 2000). Reading comprehension has been defined as "a 'construction process' because it involves all of the elements of the reading process working together as a text is read to create a representation of the text in the reader's mind" (National Institute for Literacy, n.d.) and "the process of simultaneously extracting and constructing meaning through interaction and involvement with written language" (Snow, 2002, p.11). In order to better understand reading processes, Marton and Saljo (1984) classified the processes into a surface approach (focusing on decoding the signs) and a deep approach (focusing on understanding what was signified by an author). They suggested that a deep approach helps readers understand the author's message better whereas a surface approach results in poor comprehension.

Neufeld (2005) emphasized the importance of comprehension instruction because reading comprehension does not occur in many classes even though it is expected so. He defined reading comprehension as "the process of constructing a supportable understanding of a text" (p.302). Raphael and Pearson (1985) stated that teachers should teach students to monitor their process of comprehending because monitoring could improve their comprehension. Pearson and Dole (1987) provided the following steps to teach reading comprehension explicitly: modeling, guided

practice, consolidation, independent practice (to read a text in a workbook), and application (to read a real text).

L2 Reading in Relation to L1 Reading

The population learning English in the L2 context is increasing remarkably (Garcia, 2000), and reading is one of the most difficult but necessary language skills, especially in an academic environment, therefore, much research focusing on L2 reading has been conducted (Calero-Breckheimer & Goetz, 1993; Cromley, 2005; Garcia, 1998; Jimenez, Garcia, & Pearson, 1995; Koda; 2005; Oxford et al., 2004; Prichard, 1990).

However, compared to the amount of L1 reading research, few studies on L2 reading exist and those that exist are not fully coherent (Bernhardt, 2000). This situation which can be explained in two ways: (a) According to Carrell's (1989) observation, researchers in the field of L2 acquisition have mostly focused on oral language development, resulting in the lack of focus on L2 learners' literacy development and their reading. (b) After reviewing L2 research since 1974, Bernhardt (1991) found a reason why L2 research cannot be as integrated as in L1 research; that is because of an extreme variety of participants, with their various native languages and target languages, experimental tasks, and methodologies. Weber (1991) criticized L2 reading research as only replicating L1 reading research by following the trends of L1 reading research and extending L1 reading experiments due to the incoherence of L2 research trends and the lack of L2 reading research.

Fortunately, with the increase of ESL/EFL learners, L2 reading has been increasingly investigated since the 1990s (Fitzgerald, 1995; Garcia, 2000; Kern,

1994; Koda, 2005; Parry, 1996; Seng & Hashim, 2006; Yamashita, 2004) by revisiting the relationship between L1 and L2 reading.

There are still ongoing debates about the relationship between L1 and L2 reading. Many L2 researchers considered L2 reading to be similar to reading in their native languages (Collier & Thomas, 1989; Cummins, 1981; Fitzgerald, 1995; Garcia, 2000; Pritchard, 1990). After analyzing 67 ESL reading strategies, Fitzgerald (1995) concluded that cognitive processes of ESL readers are substantially more similar to than different from the processes observed while reading in their native languages.

Some researchers differentiated L2 reading from L1 reading, emphasizing that there are L2 reading-specific reading processes, such as translation (e.g., Kern, 1994; Li & Munby, 1996) and cultural differences (e.g., Parry, 1996). Koda (2005) emphasized that even though L1 reading research gave remarkable insights in L2 reading research, it should not be simply adopted to explain L2 reading.

Considering that one of the important factors affecting L2 reading is whether learners have native language literacy before they learn a target language, a longitudinal study showed that immigrants with native language literacy skills outperformed those without (Collier & Thomas, 1989). This was also supported by a successful transfer from a native language to target language reading (Cummins, 1981).

In terms of transfer from a native language to a target language, there are two different opinions about the influences of L2 learners' native languages on target languages: (a) One position is called *Common Underlying Proficiency* model, which assumes that the development of reading skills in a native language serves as a

underlying conceptual and linguistic proficiency, and accordingly, with this proficiency, students can develop their second language proficiency (Cummins, 1981, 1983). (b) The other position, called *Interdependence Hypothesis*, assumes the strong correlation between a minority language and a majority language. This means that once a student develops language skills in his/her native language, with adequate exposure and motivation to learn a new language, the language skills of the native language will transfer to the new language (Clarke, 1980; Cummins, 1979, 1986).

Little research has been conducted to examine the transfer of learning strategies (Chamot, 2007) even after Chamot (2001) called for research on the transfer of strategies from L1 to L2, L2 to additional languages, and L2 to L1.

Important Dynamics Related to Reading

Based on the previous L1 and L2 reading theories and research mentioned in the previous section, this section presents two kinds of dynamics related to reading. One is about dynamics going on inside a learner, which are necessary to activate when reading texts and to use reading strategies, i.e., metacognition (Brown, 1980; Carrell, 1989; Chamot, 2005b; Cohen, 1995; Mokhtari & Sheorey, 2002; Schmeck, 1988). The other is about dynamics between a learner and a helper scaffolding the learner, that is, Vygotsky's social Zone *of Proximal Development (ZPD)* (Hedegaard, 1990; Palincsar & Brown, 1984; Vygotsky, 1982).

Metacognition: The Role of Awareness in Strategies

Metacognition is generally defined as thinking about thinking and known to be very important to reading comprehension (Baker & Brown, 1984; Flavell, 1979, 1987; Cromley, 2005). Metacognition is also known as one's ability to control his/her

cognitive processes; in other words, metacognition helps him/her use cognitive strategies to achieve his/her goals (O'Malley & Chamot, 1990; Palincsar & Brown, 1984; Oxford, 2007). In order to achieve the goal, metacognition helps him/her "figure out how to do a particular task or set of tasks, and then make sure that the task or set of tasks are done correctly" (Sternberg, 1986, p. 24). Livingston (1996) stated that there should be more than simply providing knowledge without experience or experience without knowledge, which signifies metacognition. The study of metacognition has suggested several implications for instructional interventions, by emphasizing that teachers should teach students not only how to be more aware of their learning processes and products but also how to regulate those processes for more effective learning (Anderson, 2002; Carrell, 1989; Flavell, 1979, 1987).

Palincsar and Brown (1984) emphasized the importance of strategic activity to understand students' reading, in addition to their decoding fluency, how reader-friendly a text is written, and how much background knowledge they have about the content of a text. Needless to say about L1 reading, numerous empirical studies in the L2 reading field have discovered that similar reading processes, especially cognitive and metacognitive strategies, are employed by L1 and L2 readers (Block, 1986; Carrell, 1991; Carson et al., 1990; Fitzgerald, 1995; Pritchard, 1990; Saville-Troike, 1984). For example, L2 readers used metacognitive strategies similarly to L1 readers (Block, 1986), and positive relationships were found between them (Carrell, 1991; Carson et al., 1990; Saville-Troike, 1984). Pritchard (1990) also showed the same metacognitive strategies were employed when the participants read in their native language (Spanish) and in a target language (English). In addition, text genres, such

as expository and narrative, seemed to play a more important role in selecting reading strategies than languages (Garcia, 2000; Green & Sutton, 2003).

Therefore, metacognition has been considered critical for reading and reading strategies, and it involves awareness of reading strategies (Baker & Brown, 1984; Brown, 1980; Bruce & Robinson, 2000; Cromley, 2005). The role of awareness when learning a language, however, is controversial; most would agree that awareness helps students learn a language and use strategies, at least in the earlier stages of learning (Chamot, 1998; Cohen, 1995; National Capital Language Resource Center [NCLRC], 1996; O'Malley & Chamot, 1990; Oxford, 1990; Oxford & Cohen, 1992).

While many theorists have defined awareness differently, Schmidt's (1994a) definition is well known in the field of L2 learning and widely employed. He classifies consciousness into intention, attention, awareness, and control. These four dimensions can be applied to L2 learning (reading) strategies, as follows (Oxford & Lee, 2007):

- First, intention refers to the degree of deliberateness. Because of their deliberate, goal-oriented nature, strategies are intentional. The learner decides to use a strategy intentionally to understand a text. Therefore, strategies are relevant to intentional learning, not incidental learning. In an incidental learning situation, the learner might have a goal of finding the main idea of a text, but might incidentally pay attention to guessing new words. Thus, the strategy is not related to incidental learning, even though such learning is occurring.
- Second, attention refers to detecting a stimulus, such as a structure, rule, or word. Learners must solve a problem that involves detecting multiple stimuli, and they

decide to use a strategy to help solve the problem. To use a strategy for solving the problem, they must pay attention to the stimuli and to the overall problem, as well as to the components of the strategy.

- Third, awareness, considered most important in relation to metacognition, is the learner's knowledge or subjective experience in detecting a stimulus. By definition, strategies always involve some degree of awareness. Awareness distinguishes explicit learning (aware) from implicit learning (unaware). Therefore, strategies are always relevant to explicit learning.
- Fourth, control refers to the degree of cognitive effort involved. A strategy is a plan that involves (a little to a lot of) cognitive effort in order to make learning easier. Control plays an important role in achieving self-regulated learning and autonomous strategy use.

Oxford and Leaver (1996) adapted these four dimensions for strategy instruction while adding one more condition: no consciousness (also called blind strategy instruction). They emphasized focal attention for learning strategies and suggested counseling sessions to raise it, because attentional resources were limited, compared to the amount of activities around us. Schmidt (1994b, 2001) called this focal attentive processing or focal awareness of a structure as *noticing*, which is essential for acquiring forms, and explicit or formal instruction is necessary for those at higher levels or for older children, adolescents, and adults.

Many empirical studies have investigated explicit strategy instruction, which is generally designed to teach metacognitive strategies, among different types of language learning strategies, because they are related to knowing one's own learning,

such as planning, monitoring, and evaluating (Chamot & O'Malley, 1994a, 1994b; Ikeda & Takeuchi, 2003; Oxford & Leaver, 1996). Also, metacognitive strategy use for L2 reading has been studied (Block, 1992; Carrell, 1984; Jimenez, Garcia, Pearson, 1996; Oxford et al., 2004).

Strategies are often confused with skills or processes. Awareness (or consciousness) has been used to explain those differences; according to Schmeck (1988), skills mean that capabilities or abilities that can be expressed in behavior; in contrast, as shown above, learning strategies refer to a sequence of conscious procedures for accomplishing learning. Cohen (1995) pointed out that students' behaviors are processes, not strategies, if students are no longer conscious of doing the behaviors to learn a language, which emphasizes the importance of consciousness – and awareness – on strategies. Strategies usually involve conscious, intentional plans to implement skills. Reading is also an "intentional, deliberate, and purposeful act" (Mokhtari & Reichard, 2002, p. 251).

Zone of Proximal Development: The Role of Scaffolding in Learning Strategies

In order to show the importance of teachers' role as facilitators, not as transmitters, when teaching reading strategies, many researchers have agreed that scaffolding (e.g., Vygotsky's (1978) *ZPD)* plays a very important role in promoting comprehension (Duffy, 2002; Clark & Graves, 2005; Harris & Pressley, 1991; Hedegaard, 1990; Nist & Simpson, 2000; Palincsar, 2003; Palincsar & Brown, 1984; Pressley et al., 1992). Unlike other constructivists like Piaget, Vygotsky emphasized social environment of learners, such as more competent others in helping learners experience intellectual progress; thus, his theory is called social constructivism

(Hedegaard, 1990). In order to conceptualize the *ZPD,* Hedegaard (1990) described Vygotsky's experiment with two children: Vygotsky gave (a) problems designed for 12-year-olds to an eight-year-old child, and (b) problems for nine-year-olds to another eight-year-old child. The first child could solve the problems in cooperation with more competent helper, while the second one could not because the child did not have any help. The zone for the first one is four, and that for the second one is one. Only the first one was able to traverse this *ZPD* with help.

Vygotsky (1982) also described the *ZPD* as follows, emphasizing that a child's *ZPD* should be traversed with adults' help:

> The child is able to copy a series of actions which surpass his or her own capacities, but only within limits. By means of copying, the child is able to perform much better when together with and guided by adults than when left alone, and can do so with understanding and independently. The differences between the level of solved tasks that can be performed with adult guidance and help and the level of independently solved tasks is the zone of proximal development (Vygotsky, 1982, p. 117).

Vygotsky believed that "human development is characterized by the ability to acquire psychic tools" (Hedegaard, 1990, p. 351). In order to help children learn psychic tools such as reading strategies, Pearson and Fielding (1991) proposed a model showing that students gradually take more responsibility for doing a task the teacher has scaffolded as time goes by. Clark and Graves (2005) stated that the Palincsar and Brown's (1984) Reciprocal Teaching Approach (described in the Strategy Instruction section below) was one of the successful instruction models of scaffolding students to learn reading strategies effectively.

Although the *ZPD* deals with young learners' social learning, many studies adapted it to adult learners, including college-level students (Dunlosky & Nelson,

1994; Nist & Simpson, 2000; Pressley, 1995; Thiede & Dunlosky, 1994). Nist and Simpson (2000) discussed native English speaking college students' limited metacognitive skills for reading well, which contradicted common expectations about them. College students were found to have problems in monitoring text reading (Pressley, 1995), and they became more metacognitively aware after being trained to monitor their learning (Dunlosky & Nelson, 1994; Thiede & Dunlosky, 1994). In L2 classroom, teachers have been considered a facilitator, instead of a transmitter, of learning (Pearson & Fielding, 1991).

Reading Strategy Assessment

Since the 1980s, research on learning strategies, including reading strategies, has increased and these studies have found how effective strategies are for learning (O'Malley & Chamot, 1990; Oxford, 1990, 1996b; Panlicsar & Brown, 1984; Pressley, 2000). Reading researchers have employed qualitative and quantitative assessment methodologies to see whether native English speakers and non-native English speakers use the same strategies to read an English text and have discovered that their participants used the same reading strategies across languages (Calero-Breckheimer & Goetz, 1993; Garcia, 1998; Jimenez et al., 1995; Prichard, 1990).

Using strategies is a mental process that cannot be observable (Chamot, 2007), therefore, researchers have relied on self-reporting verbalization to tap into readers' internal cognitive processes, which cannot be easily measured (Ericsson & Simon, 1993; Cohen & Hosenfeld, 1981). Even though self-reporting has been argued in terms of veridicality and incompleteness, it still gives useful information about internal cognitive processing, such as reading strategy use (Afflerbach, 2000;

Anderson, 1991; Feyton, Flaitz, & LaRocca, 1999; Li & Munby, 1996; Matsumoto, 1994); moreover, it may be "the only way to identify learners' mental processing" (Chamot, 2007, p.72).

There are several commonly used self-reporting assessment methods: retrospective interviews, stimulated recall interviews, observations, questionnaires, strategy checklists, written diaries and journals, and think-aloud protocols (for review, Chamot, 2005a; Oxford, 1996c). Each assessment technique's appropriate uses and limitations of use are given below in Oxford's (1996c) table.

Table 1

Comparisons of Strategy Assessment Types

Type	Appropriate Uses	Limitations of Use
Strategy questionnaires	Identify "typical" strategies used by an individual; can be aggregated into group results; wide array of strategies can be measured by questionnaires	Not useful for identifying specific strategies on a given language task at a given time
Observations	Identify strategies that are readily observable for specific tasks	Not useful for unobservable strategies (e.g., reasoning, analyzing, mental self-talk) or for identifying "typical" strategies
Interviews	Identify strategies used on specific tasks over a given time period or more "typically" used strategies; usually more oriented toward task-specific rather than "typical" strategies of an individual; depends on how interview questions are asked	Usually less useful for identifying "typical" strategies because of how interviews are conducted, but could be used for either task-specific or "typical" strategies
Dialogue journals, diaries	Identify strategies used on specific tasks over a given time period	Less useful for identifying "typical" strategies used more generally
Recollective narratives	Identify "typical" strategies used in specific settings in the past	Not intended for current strategies; depends on memory of learner

Type	Appropriate Uses	Limitations of Use
Think-aloud protocols	Identify in-depth the strategies used in a given, ongoing task	Not useful for identifying "typical" strategies used more generally
Strategy checklists	Identify strategies used on a just-completed task	Not useful for identifying "typical" strategies used more generally

Note. From "Employing a questionnaire to assess the use of language learning strategies," by R.L. Oxford, 1996c, *Applied Language Learning*, 7, p. 39. Reprinted with permission.

Verbal Protocols

Verbal protocols usually happen concurrently (on-line) while reading a text (Matsumoto, 1994), so this method has been used to discover what readers do while reading with or without prompts like "Keep talking. How did you solve that? Why did you laugh? What made you stop here? What are you thinking now?" (Chamot, 2007). Researchers who treat strategy use as an event, which changes according to each specific task, tend to adopt think-aloud protocols (Winne & Perry, 2000). This method has been widely used because researchers believe that learners can report what is in their working memory (Ericsson & Simon, 1993; Pressley & Afflerbach, 1995), and that reporting while doing a task concurrently gives more and better information than reporting what they did retrospectively (Kuusela & Paul, 2000).

According to Afflerbach's (2000) overview of the history of verbal reports and protocol analysis in L1 reading research, there are several controversial issues regarding protocol analysis: (a) whether protocol analysis is appropriate to unearth reading processes; (b) whether verbal protocols produce veridical data; and (c) whether verbal protocols have educational values as much as Vygotsky's (1978) inner

speech in terms of helping learners by letting them become acquainted with their inner processes (see also Guerrero, 2004).

It is said that protocol analysis helps to better understand readers' strategies by focusing on reading, although readers' thoughts and actions are very complex (Afflerbach, 2000; Payne, 1994). In addition to helping understand L1 readers, it has helped discover and describe what L2 readers do while reading a text and has helped focus on the in-depth information of a few participants (Anderson, 1991; Davis & Bistodeau, 1993; Feyton et al., 1999; Kang, 1999; Li & Munby, 1996; Salem, 1994; Serren, 2002; Suh, 1999; Young, 1993).

While many researchers have proven the effectiveness of verbal protocols to assess reading strategies, there are also many studies showing the adverse influences on the validity of the data (Branch, 2000; Kuusela & Paul, 2000; Leighton, 2004; Wilson, 1994). Producing verbal protocols while doing a task may be too much of a burden on some students (Branch, 2000). Some other students may not have appropriate words to express what they are doing or they may misreport what they are doing while believing it is the right way to (Kuusela & Paul, 2000). In other words, limited language skills may cause students, especially when they are young, to fail to report what they are doing, not because of limited knowledge (Singhal, 2001).

Students with higher proficiency cannot verbally express what they are doing when they are doing it unconsciously (Kuusela & Paul, 2000; Leighton, 2004). It is also possible that being in an unnatural and distracting situation makes learners produce distorted data that is not representing what they are doing silently (Rubin, 1994).

In terms of languages that students used to think-aloud, participants have been allowed to report in either L1 or L2 that they feel more comfortable with, and most of them produced verbal protocols in their native languages (Anderson, 1991; Jimenez, et al., 1996; Kang, 1999; Leow & Morgan-Short, 2004; Suh, 1999; Upton, 1997; Young, 1993) because L2 proficiency is closely related to the degree of L1 use (Kern, 1994). Upton (1997) also found that only some ESL students with higher proficiency levels preferred to use L2 in some cases, but most of them did not. Seng and Hashim (2006) found that L2 learners tended to use L1 especially when facing difficult parts while reading, which supported the important role of L1 use in L2 readers' comprehension processes. Garcia (2000) emphasized a greater influence of L2 learners' L1 use in reading comprehension than expected.

Questionnaires

As another self-reporting measurement, questionnaires are the most frequently and widely used to measure learning strategies (Chamot, 2007), including reading strategies. Researchers who consider strategy use as an aptitude, which is consistent while doing similar tasks, have used questionnaires (Winne & Perry, 2000). Questionnaires evoke written verbalization that is considered retrospective (off-line) because participants self-report what they thought and did after reading a text or what they generally do without doing a specific task (Matsumoto, 1994).

L1 reading researchers have developed reading strategy inventories, such as the *Index of Reading Awareness* (Jacobs & Paris, 1987) and *Reading Strategy Use* (Pereira-Laird & Deane, 1997). Based on critique of existing reading questionnaires and reading research, Mokhtari and Reichard (2002) have developed a reading

strategies questionnaire, *Metacognitive Awareness of Reading Strategies Inventory (MARSI)*, which has been examined in rigorous steps and thus validated by expert judges, empirical data, and factor analyses. Even though the *MARSI* is targeting L1 readers, the words used to describe each strategy item are simple and easy to read because its target group is sixth through 12th graders.

Based on the *MARSI*, revising it and adding a couple of L2 specific strategies like translation, Mokhtari and Sheorey (2002) developed the *Survey of Reading Strategies (SORS)* to assess learners' use of English (L2) reading strategies. Some other L2 researchers have developed various questionnaires to measure text-specific strategy use (Chamot & El-Dinary, 1999; Oxford et al., 2004; Rubin & Thompson, 1994). Numerous L2 studies using questionnaires with a large group of participants have shown that language learning strategies, including reading strategies, are very helpful for learning a language (Green & Oxford, 1995; Kim, 2000; Lee, 1994, 2002; Lee & Oh, 2001; Y. Park, 1999; Yoon, Won, & Kang, 2001; Zimmerman & Martinez-Pons, 1990).

Many L2 researchers have used one of the most widely used questionnaires, Oxford's (1990) *Strategy Inventory for Language Learning (SILL),* to get general strategy use profiles (Cohen, Weaver, & Li, 1998; Oxford, 1990, 1996c; Green & Oxford, 1995). The *SILL* is well known for its effectiveness for assessing the learning strategies of a large group of students (Chamot, 2007).

While questionnaires, including the *SILL*, have been proven to be effective for various groups in terms of age, proficiency levels, nationalities, and locations, they have been also criticized due to several limitations (Oxford, 2007). It is possible that

students do not remember what strategies they used in the past and that they do not understand what a strategy item in a questionnaire means (Chamot, 2007). LoCastro (1994) criticized the *SILL* for including culturally irrelevant items. With this spur, since the mid-1990s Oxford has requested users to adapt the *SILL*, i.e., to remove culturally irrelevant items and to tailor the *SILL* to their local needs, and researchers around the world have done so (Oxford, 2008). Dörnyei and Skehan (2003) complained that the *SILL* was not sufficiently task-related. However, Oxford, Cho, Leung, and Kim (2004) had already piloted a text-specific reading strategy inventory largely modeled on the *SILL*. Oxford (2008) recommended further research on statistical issues to provide a tighter measurement geared to tasks within specific sociocultural settings.

Journals or Diaries

Reflective journals or diaries are used to examine any changes or improvement based on learners' exclusive reflections on their own cognitive processes and/or attitudes toward learning strategies (Carson & Longhini, 2002; Peterson, 2000; Vandergrift, 2003b).

Reflective journals or diaries have been increasingly employed by many education programs (Tang, 2002). Vandergrift (2003b) let his university students write reflective journals every two weeks during one semester and analyzed what was in common in terms of the task utility and the development of listening strategies. Carson and Longhini (2002) observed that learners wrote about their own learning and the ways that they employed to solve problems. Peterson (2000) collected students' learning strategy diaries to identify their pronunciation strategies.

Writing reflectively about what they learned not only helps teachers identify students' learning processes but also helps students promote critical thinking and professional growth (O'Rourke, 1998) and self-awareness of their strategy use (Rubin, 2003).

However, it is not always possible for students to write reflectively. Some students used journals to keep records rather than to reflect what they had learned (Rubin, 2003). Moreover, it is possible that students did not know how to write reflectively in contrast to descriptively, simply making them write as an open-ended assignment should be avoided (Grennan, 1989; Sommer, 1989).

Assessing Koreans' English (L2) Reading Strategy Use

Korean researchers have studied Koreans' English language learning strategies since the 1990s (Ham, 2002; G. Park, 1999; Y. Park, 1999; Song, 1999; Suh, 1999); however, compared to other nations' research on language learning strategies, there are not many studies on Koreans. Various L2 strategy inventories, such as the *SILL*, have been translated into Korean and modified to assess Koreans' strategies across reading, listening, writing, speaking, and general learning strategies (Kim, 2000; Lee, 1994, 2002; Lee & Oh, 2001; Oh, 1996, 1999; Y. Park, 1999).

In particular, reading strategies have been investigated in relation to the standardized English tests in the Korean university entrance examination, and cloze tests were mostly used to measure improvement in reading comprehension, with various methods to assess reading strategies, including verbal reports (Ham, 2002; Lee, 2002; Oh, 1999; Song, 1999; Yoon et al., 2001).

Reading Strategy Instruction

Palincsar and Perry (1995) emphasized that reading cannot be developed as naturally as walking, and described the previous studies on how to teach reading, including teaching reading strategies by the RTA (Palincsar & Brown, 1984). Moreover, as Alfassi (2004) stressed that using reading strategies flexibly, as well as integrating new and prior knowledge, is necessary to read well. Strategy instruction refers to "highly creative, multilevel process for teaching students to optimize their learning strategies for themselves as individuals" (Oxford & Leaver, 1996, p. 228). Emphasizing the importance of learners' current strategies, Chamot (2005a, 2007) encouraged teachers to assess learners' baseline reading strategies before strategy instruction.

A strategy itself is neutral, which means that its effectiveness depends on how it is used and in what context; in other words, poor learners cannot benefit from good strategies that they are already using (Nyikos, 1991; Oxford, 1993; Oxford & Cohen, 2004). According to Nyikos (1991), "less successful students often are already using several strategies well-suited to their own learning style, but many apply them haphazardly" (p. 32). For example, even unskilled readers use prior knowledge while reading, but because they do not know how to use it effectively, they tend to make incorrect and unnecessary inferences using their prior knowledge, interfering with comprehension (Williams, 1993).

Baker and Brown (1984) addressed that students must be able to use strategies because simply knowing of them is not enough. Pressley (2000) emphasized the

importance of instruction because it will ultimately influence whether a student can read and comprehend what is in the text.

Teachability of Strategies

Many L1 reading studies have confirmed that strategies can be taught, but with the following conditions: First, strategy instruction should be intensive during a significant amount of time to build a strategy repertoire (Garner, 1990; Pressley, 1995) because metacognition cannot be improved by one-time instruction (Nist & Simpson, 1990). Second, not only a definition of a strategy but also demonstration about how to use it should be included in strategy instruction (Garner, 1990; Paris, 1998). Third, strategies should be taught explicitly and directly (Pressley, 1995, 2000) because most successful strategy instruction benefits from direct explanation about strategies (Graham and Harris, 2000; Pressley et al., 1992). Roehler and Duffy (1984) emphasized the importance of direct explanation and responsive elaboration on helping students learn and use reading strategies effectively (see also Duffy and Roehler, 1989). Duffy et al. (1987) found that a group with direct explanation performed better than the control group on standardized reading measures.

However, even though the explicit strategy instruction is favored by most researchers and educators (Cohen, 1998; Duffy et al., 1987; Graham and Harris, 2000; O'Malley & Chamot, 1990; Oxford & Leaver, 1996; Pressley, 1995, 2000), the effectiveness of implicit strategy instruction is also supported in terms of helping students reinforce their strategic awareness (Griffiths, 2003). Moreover, Fountas and Pinnell (1996) addressed that strategies can be built on affluent examples embedded in the teaching materials to let learners learn them naturally and implicitly. Duffy

(2002) refuted Fountas and Pinnell, arguing that their assumption was wrong because learners cannot notice and incorporate strategies which are not explicitly displayed into their repertoires. Beck, McKeown, Sandora, Kucan, and Worth (1996) pointed out a possibility that learners pay attention to strategies themselves, resulting in distraction from reading comprehension, even though strategies can be explicitly taught.

In addition to explicitness, regarding when to teach strategies, there are two ideas (Ikeda & Takeuchi, 2003): One is intensive instruction of strategies (e.g., teaching a strategy at the beginning of every class), and the other is integrative (e.g., teaching a strategy throughout the class activities). Oxford (1989) and Wenden (1986) found the integrative method to be more effective than the intensive method. Pressley et al. (1992) also found that the integrative method was effective to help the students use reading strategies naturally.

L1 Strategy Instruction Models

In terms of the number of strategies to teach in order to promote the effectiveness of strategy instruction, previous research on reading strategy instruction is summarized into two groups (Cromley, 2005; Pressley, 2000). One is about teaching individual comprehension strategies and evaluating the effectiveness of the strategies learned (Armbruster, Anderson, & Ostertag, 1987). Regarding the effectiveness of teaching a single strategy, Armbruster et al. (1987), for example, taught how to summarize only to one group of students. They found that the students who learned the strategy of summarization improved more than the students who did not.

The other group is interested in developing teaching models of multiple strategies even though Nist and Simpson's (2000) suggested teaching a limited number of validated strategies for the effectiveness of strategy instruction (see also Pressley, 1995). They provided a list of the four strategies that have been taught and validated in many studies: (a) question generation and answer explanation, (b) text summarization, (c) student-generated elaboration, and (d) organizing strategies. Among various strategy instruction models to teach multiple strategies, most commonly adapted and probably most favored are the RTA (Palincsar & Brown, 1984) and the Transactional Strategies Instruction (TSI) (Pressley et al., 1992).

Reciprocal Teaching Approach

In order to show the effectiveness of teaching multiple strategies, Palincsar and Brown (1984) chose Summarizing (self-review), Questioning, Clarifying, and Predicting to help novice learners. They selected these four strategies "only after a great deal of theoretical discussion about them had occurred (Brown, 1980; Brown & Day, 1983; Flavell, 1981; Kintsch & vanDijk, 1978; Markman, 1981; Stein & Trabasso, 1982)" (p.170) and because the four strategies are both enhancing and monitoring reading comprehension.

Palincsar and Brown (1984) taught the four strategies interactively to scaffold poor learners as they traverse their *ZPD* while teacher and student take turns "leading a dialogue concerning sections of a text" (p.124), resulting in calling this approach *reciprocal* teaching. First, the teacher demonstrated how to summarize (self-review), question (make up a question on the main idea), clarify, and predict. Then, the teacher grouped students and assigned the role of the teacher to the students. The teacher

guided and gave feedback so that the students could use the four strategies appropriately. Later, the teacher and the students discussed the use of the four strategies, and the students played a greater role in leading the discussion. They discovered that the students in the RTA group substantially improved compared with those in the traditional reading group (Palincsar & Brown, 1984).

Cotterall (1993) adapted the RTA to teach reading strategies to four ESL students and found that the RTA was effective for L2 learners. Alfassi (2004) added direct explanation to the RTA in order to teach a larger group of high school students (29 students in the first period of intervention) while incorporating it into the English language arts curriculum, and the students improved their reading comprehension to a point significantly higher than their peers without the adapted reading strategy instruction. In other words, RTA has been effective in promoting reading comprehension and most effective when direct and explicit teaching preceded reciprocal teaching procedures (Alfassi, 2004).

Transactional Strategy Instruction

Pressley et al. (1992) called their strategy instruction model *transactional* in the sense that teachers and students determine the activities together and that they construct understandings of the text while interacting with it. They assumed a more active role with students determining the curriculum and in constructing understandings of a text by their interactions with teachers. They included comprehension strategies, such as summarization, prediction, visualization, thinking aloud, story grammar analysis, text structure analysis, prior knowledge activation, and self-questioning. Pressley (2000) summarized the procedures of the TSI by

emphasizing its flexibility: (a) teacher's direct explanation and modeling of strategies; (b) guided practice of strategies; (c) teacher's assistance if needed; and (d) lively discussion about strategy use.

While the RTA tried to help poor readers read as well as skilled readers improve in a relatively short period of time (Palincsar & Brown, 1984), the TSI targeted teaching more strategies to weaker readers and good and average readers with direct explanation over a relatively longer period of time (Pressley et al., 1992).

L2 Strategy Instruction Models

Compared with the field of L1 research (Duffy & Roehler, 1984; Duffy et al., 1987; Garner, 1990; Palincsar & Brown, 1984; Paris, 1998; Pressley, 1995; Pressley et al., 1992; Roehler & Duffy, 1984), there has been little empirical research about language learning strategy instruction in the field of L2 research. However, more and more studies on the effectiveness of strategy instruction in the L2 field have been conducted (Chamot, 2005b; Chamot & El-Dinary, 1999; Chamot & O'Malley, 1994b; Cohen, 1998).

L2 strategy instruction models have emphasized the importance of metacognitive reading strategies (Anderson, 2002; Fitzgerald, 1995; Rubin, 2001; Vandergrift, 2003b). For example, Fitzgerald (1995) summarized metacognitive reading strategies that have been commonly studied in the L2 reading research: (a) asking questions; (b) rereading; (c) imaging; (d) using a dictionary; (e) anticipating or predicting; (f) reading fast or changing speed; (g) thinking about something else while reading or associating; (h) summarizing; and (i) paraphrasing.

Rubin's (2001) learner self-management model also emphasized the following five metacognitive strategies to achieve self-regulation: (a) planning, (b) monitoring, (c) evaluating, (d) problem-solving, and (e) implementing.

Anderson (2002) addressed that teachers should teach L2 learners how to (a) plan, (b) select and use learning strategies, (c) monitor strategy use, (d) orchestrate various strategies, and (e) evaluate the strategies.

Vandergrift (2003b) provided more specified description of teaching steps and their cognitive processes for tasks as the following order: (a) prediction/planning, (b) selective attention, (c) monitoring, (d) problem-solving, and (e) evaluating.

Cognitive Academic Language Learning Approach

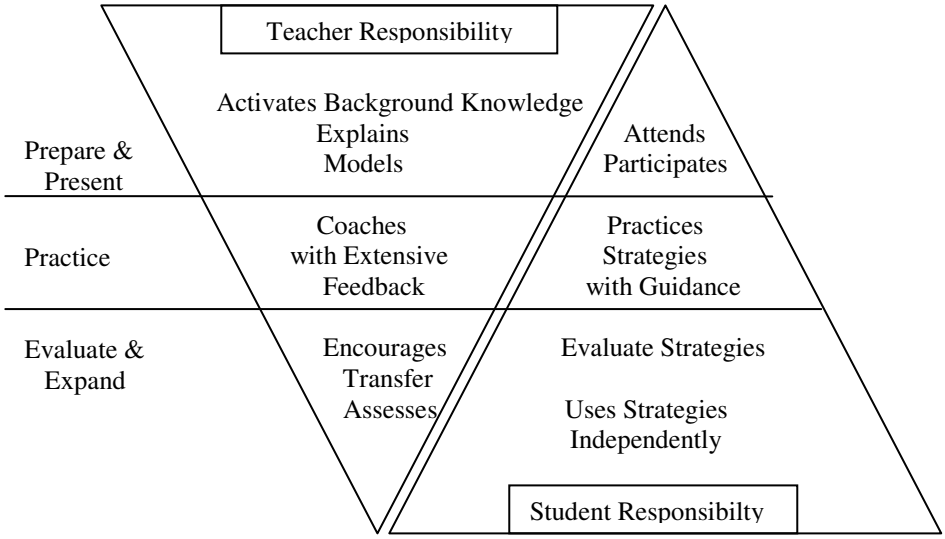
A well-known L2 strategy instruction model, the CALLA was developed based on cognitive theories (Chamot & O'Malley, 1994b). CALLA consists of the following steps for content area instruction, academic language development, and explicit strategy instruction to intermediate or advanced levels of ESL students (Chamot & O'Malley, 1994b):

- Preparation: teachers help students become aware of their prior knowledge as well as the strategies they have already used.
- Presentation: teachers explicitly explain and model strategies that are effective for certain task demands.
- Practice: teachers provide opportunities, guidance and feedback for supporting students who practice using the strategies.
- Evaluation: students self-evaluate the effectiveness of strategy use.
- Expansion: students transfer strategies to new situations and work independently.

When needed, in addition to students' self-evaluation, teachers assess the students' strategy use to see influence of the strategy instruction (Chamot, 2007).

CALLA also assumes a greater responsibility of L2 learners in selecting and using learning strategies with teachers' scaffolding, which is removed when no longer needed, and the process of students' taking over the responsibility was visually shown in Figure 4 (Chamot & O'Malley, 1994b; Chamot et al., 1996).

Figure 4. Framework for Strategies Instruction



Note. From "*The CALLA handbook: Implementing the cognitive academic language learning approach*," by A. U. Chamot, & J. M. O'Malley, 1994b, p. 66.

O'Malley and Chamot (1990) compared a strategy instruction group and a control group and showed the strategy instruction group outperformed the control group. Their empirical research has triggered strategy instruction in various places; therefore, recent empirical L2 research supported the effectiveness of strategy instruction for L2 learners (Ikeda & Takeuchi, 2003; Vandergrift, 2003).

Styles- and Strategies-Based Instruction

Cohen (1998) provided another L2 strategy instruction model, *SSBI*, which refers to learner-focused strategy instruction combining styles and strategies with everyday language instruction (Center for Advanced Research on Language Acquisition [CARLA], n.d.). The SSBI follows the following five steps: (a) identifying students' prior knowledge and use of strategies (strategy preparation); (b) raising students' general awareness about learning processes, learning style preferences, and baseline strategies (strategy awareness-raising); (c) teaching explicitly how, when, and why strategies can be used (strategy training); (d) encouraging students to actually use the learned strategies (strategy practice); and (e) helping students personalize the learned strategies and transfer them to other texts (personalization of strategies).

The SSBI (Cohen, 1998) model assumes that teacher takes different roles as instruction proceeds. At first, the teacher helps students become aware of their own baseline strategy use (teacher as diagnostician), shares his/her own learning experiences with their students (teacher as language learner), and teaches how to use learning strategies (teacher as learner trainer). Later, the teacher advises students how to plan and monitor problems (teacher as coordinator), and moreover, offers ongoing guidance on their progress in strategy use (teacher as coach). This model considers students to have various learning styles and helps them find appropriate learning strategies.

Effectiveness of Strategy Instruction

Both quantitative and qualitative tests have been used to examine the effectiveness of strategy instruction (Alfassi, 2004; Clark & Graves, 2005; Dole et al., 1996; Pearson & Johnson, 1978; Pressley et al., 1992). In the field of L1 reading, strategy instruction was considered to be effective when students with strategy instruction had higher test scores than those without (Pressley, 2000). Strategy instruction has shown that such metacognitive/cognitive strategies as prior knowledge activation, mental image construction, and summarization to be effective, resulting in better comprehension scores (Brown & Day, 1983; Brown et al., 1996; Levin & Pressley, 1981). When researchers wanted to gain insights about readers' reactions to text, influenced by strategy instruction, but not specifically for testing their reading performance on tests, they examined the readers' reading strategy use qualitatively with think-aloud protocols (Ericsson & Simon, 1993; Pressley & Afflerbach, 1995; Pressley et al., 1992).

Some L2 researchers have found strategy instruction to be helpful, resulting in learners' improvement in test performances (Carrier, 2003; Dadour & Robbins, 1996). Carrier (2003) compared listening comprehension scores before and after teaching strategies to show the effectiveness of strategy instruction. Cohen et al. (1996) and Dadour and Robbins (1996) reported the effectiveness of teaching speaking strategies. Ikeda and Takeuchi (2003) found (a) that explicit and intensive strategy instruction promoted strategy use, (b) that learners' language proficiency affected the effectiveness of strategy instruction, and (c) that the effects were retained for five months after instruction.

Some other L2 researchers have proven strategy instruction to be effective through changes of learners' strategy use by using process data like reflective journals or think-aloud protocols for each task over a period of time (Davis & Bistodeau, 1993; Kang, 1999; Li & Munby, 1996; Young, 1993; Vandergrift, 2003a).

Teachers' evaluations after teaching strategies were also used to examine the effectiveness of strategy instruction, and the teachers reported that they usually think that strategy instruction works positively for their students as they become more self-regulated (NCLRC, 2000).

When facing ineffectiveness of strategy instruction, Oxford (1993) listed possible problems, which might cause ineffectiveness in certain skill areas. There may be the following methodological problems in studies yielding little effect: (a) when the strategy training takes place during too short a period of time, (b) when the difficulty levels of tasks are not balanced; (c) when affective and social strategies, which are potentially important to language learning, are not paid enough attention to; or (d) when learners' baseline strategies are not assessed appropriately.

Language of Instruction

Teaching English reading strategies to L2 learners usually involves debates about which language should be used by teachers. As noted before, students' target language proficiency plays an important role in reading comprehension (Garcia, 2000; Kern, 1994; Upton, 1997), therefore, Seng and Hashim (2006) addressed that teachers should allow a certain amount of students' L1 use especially when they are trying to understand difficult parts. Moreover, according to Lucas and Katz (1994),

teachers' effort to use students' native languages had positive influence on students by making them proud of their own languages and cultures.

Some studies have supported positive influences of using students' native languages on their understanding (Salataci & Akyel, 2002; Leow & Morgan-Short, 2004; Thomas & Collier, 2002), whereas some other researchers value teaching strategies in a target language to expose students in the target language as much as possible (Chamot, 2007). It has been generally agreed that L2 learners with low proficiency need to be taught in their native languages (Chamot, 2007; Macaro, 2001). Moreover, Salataci and Akyel (2002) discovered that the transfer of reading strategies occurred bi-directionally (i.e., both from L2 to L1 and from L1 to L2), which supports the benefits from strategy instruction in students' native language.

Strategy Instruction for Korean EFL Learners

Strategy research in Korea has mainly focused on identifying Korean learners' strategy use, thus, there are few studies found in relation to strategy instruction. G. Park (1999) did not find significant improvement in listening strategy use after strategy instruction; however, he explains that this insignificant result was due to too short a period of time to teach (six hours in one semester). Similarly, Joh and Choi (2001) taught reading strategies to middle school students for three months, and they discovered modest improvement (not statistically significant) of the strategy instruction group, compared with the control group. They also considered three months was not enough, however, they discovered the positive influence of strategy instruction on the students' attitudes toward English class and English learning. Yoon, Won, and Kang (2001) reported the effectiveness of strategy instruction on students

with lower proficiency after teaching metacognitive strategies for three months. Kim (2001) also found that the Korean middle school students with intermediate reading proficiency level improved the most dramatically after learning reading strategies in 14 sessions over six months.

Summary of This Chapter

In this chapter, the theories and empirical research related to reading strategy assessment and instruction of L1 and L2 were reviewed. First, the relationship between L1 and L2 reading research was described to understand how L2 reading research has been developed in relation to L1 reading research. Second, two dynamics related to reading, metacognition and scaffolding, were presented to explain what is needed to use readings strategies and why reading strategies should be taught. In other words, readers' metacognition plays an essential role in selecting and using reading strategies to comprehend a text, which can be learned and improved by teachers' scaffolding. Lastly, various approaches to assess reading strategies and several issues related to strategy instruction were reviewed, including the previous research on Koreans. The current study is based on this extensive review of the most relevant studies.

CHAPTER 3: METHODOLOGY

This study was designed to investigate the influences of reading strategy instruction on strategy use and reading comprehension of Korean university students. It also aimed to explore the effectiveness of a new assessment tool for measuring students' text-specific reading strategy use and any possible strategy instruction wash-back effect of English reading strategies to Korean reading strategies.

Based on these purposes, related previous research was reviewed, which provided the fundamental framework and gave insight into reading strategy instruction of this study. A control group taught in a traditional way was compared with a strategy instruction group in terms of reading strategy knowledge, reading strategy use, and reading comprehension.

In order to show how this study was implemented, this chapter describes (a) setting, (b) participants, (c) instrumentation, (d) description and schedule of intervention (strategy instruction), (e) data collection procedures, and (f) data analysis procedures according to research questions, after revisiting the research questions.

Reiterating the Research Questions

The previous literature raises several fundamentally crucial issues regarding English reading strategy instruction, especially in EFL situations like Korea. Based on the literature review and the understanding of the Korean-specific academic situations, this study aims to answer the following research questions.

Table 2

Purposes and Research Questions

Purposes	Research Questions
Main Purposes	
♦ To examine the effect of reading strategy instruction on reading strategy use	♦ RQ 1: How does reading strategy instruction change students' knowledge of reading strategies? ♦ RQ 2: Does reading strategy instruction relate to students' general reading strategy use? ♦ RQ 3: Does reading strategy instruction relate to students' text-specific reading strategy use? ♦ RQ 4: How does reading strategy instruction change students' attitudes toward reading strategies? ♦ RQ 5: To what extent do students use strategies when reading a new text during and after reading strategy instruction?
♦ To examine the effect of reading strategy instruction on reading comprehension	♦ RQ 6: Does reading strategy instruction relate to students' reading comprehension scores? ♦ RQ 7: How does reading strategy instruction change students' self-rated English reading proficiency?
Secondary Purposes	
♦ To examine the effectiveness of color-coding as a new strategy assessment tool	♦ RQ 5: To what extent do students use strategies when reading a new text during and after reading strategy instruction? (This question was raised for both purposes.)
♦ To examine the influence of reading strategy instruction on the transfer of reading strategies from L2 to L1	♦ RQ 8: To what extent are students' English reading strategies transferred to their Korean reading strategies? ♦ RQ 9: How does reading strategy instruction change students' Korean reading strategy use?

Setting

This study was conducted in Korea over one semester. Korean students learn English as a foreign language (EFL), where they are usually forced to study English but with fewer resources and fewer native English speakers than in settings where

students learn English as a second language (ESL) such as in U.S., Canada, Australia, and New Zealand.

The participants in this study came from one university. The university is located in the suburban area of Seoul, Korea. It has seven colleges and 19 departments. In 2006 there were 321 tenured professors, 535 lecturers, 183 support staff members, 14,062 undergraduate students, 3,744 master's students, and 5,088 doctoral students. Because this university is near Seoul, the capital city of Korea, it has quite easy access to diverse cultural and educational events in Seoul. Unlike the universities within Seoul, this university has a spacious campus.

This university is enthusiastic in helping students learn English regardless of their major. All the freshmen are required to stay at the dormitory for at least one semester, where they must take an English class (reading, writing, grammar, conversation, or listening) at night. The university also offers diverse English courses, including *English Reading,* in which I taught the participants on the main campus on Tuesdays. The participants voluntarily chose to take the reading course for credit as an elective, but they had no information on the nature of the course or the instructor. Two sections of the course were assigned as a strategy instruction group (1:00 to 3:00 PM) or a control group (10:00 to 12:00 AM).

Participants

Eighty Korean university EFL students in the two sections of *English Reading* were recruited. The participants in both groups were diverse in terms of their majors, grades, and age. At the beginning of the semester, the strategy instruction group consisted of 41 students and the control group, 39 students. Seven students were

absent more than three times out of 15 classes, and one student moved from the strategy instruction group to the control group in the middle of the semester due to his schedule. Therefore, those eight students were excluded from the data analysis. The data were included for 38 and 34 students in the strategy instruction group and the control group, respectively.

Table 3

Students Profile in Terms of Gender, Age, and Grade, Major, and Prior TOEIC score

Classification	Groups	
	Strategy instruction (n=38)	Control (n=34)
Gender		
Male	28 (74%)	21 (62%)
Female	10 (26%)	13 (38%)
Age		
18~20	12 (32%)	15 (44%)
21~23	14 (36%)	12 (35%)
24~26	12 (32%)	7 (21%)
Grade		
Freshmen	7 (18%)	6 (18%)
Sophomores	7 (18%)	6 (18%)
Juniors	8 (22%)	11 (32%)
Seniors	16 (42%)	11 (32%)
Major		
Engineering &Science	13 (34%)	13 (38%)
Business & Economics	10 (26%)	9 (26%)
Languages	3 (8%)	3 (9%)
Humanities & Sociology	6 (16%)	6 (18%)
Design & Dance	6 (16%)	3 (9%)

As seen in the table above, the participants' ages ranged from 18 to 26, and they represented all levels from freshmen to seniors. There were more juniors and seniors than freshmen and sophomores. Interestingly, the majority of the participants were male. Their majors were grouped as (a) engineering and science, (b) business and economics, (c) languages, (d) humanities and sociology, and (e) design and dance.

No one was majoring in English, and about half of the participants majored in engineering, science, business, and economics.

Table 4

Students' Prior Experience of Reading Classes and Reading Scores

Classification	Groups	
	Strategy instruction (n=38)	Control (n=34)
Reading Classes in Korea		
Have taken	26 (68%)	21 (62%)
Haven not taken	12 (32%)	13 (38%)
Learning English Abroad		
When young (before elementary school)	1 (3%)	2 (6%)
About one year	6 (16%)	9 (24%)
None	31 (81%)	23 (70%)
Prior *TOEIC* Score		
500~600	15 (39%)	6 (18%)
600~700	13 (34%)	14 (41%)
700~800	10 (26%)	14 (41%)

The initial reading proficiency of most of the students was above 530, Koreans' average *TOEIC* scores (ETS, 2007). Also, more than half of the students in both groups had taken other English reading classes before, but a few students had learned English abroad, mostly in Australia, America, and Canada. Two students in the control group and one in the strategy instruction group had lived in the U.S. when they were young.

Instrumentation

The *Inventory for Strategy Awareness-Raising for Success (I-STARS)*, the *Background Information Questionnaire*, journals, think-aloud protocols, and color-coding were used to identify the participants' knowledge of reading strategies, reading strategy use, self-rated English reading proficiency, importance of English,

enjoyment of English, attitudes toward reading strategies, and perception about the nature of the class. To evaluate the participants' baseline reading proficiency, they were given the pretest in the first week. Their improvement was assessed by the midterm test (in the seventh week) and the final test (in the 15th week). The Korean pre-test and post-test containing topics similar to the English test topics were prepared in order to measure Korean reading proficiency.

The instrumentation for this study is described in the following order: (a) the *I-STARS*, (b) the *Background Information Questionnaire*, (c) journals, (d) think-aloud protocols, (e) color-coding, and (f) reading comprehension tests.

Inventory for Strategy Awareness-Raising for Success (I-STARS)

To choose what reading strategies to teach to Korean university students, the previous L1 and L2 reading research was reviewed. Because I considered students' metacognition and teachers' scaffolding to be very important to help students learn reading strategies and ultimately improve reading comprehension using the reading strategies, I focused on the advantages of the most commonly used teaching models and strategy inventories: (a) Palincsar and Brown's (1984) Reciprocal Teaching Approach (RTA) from L1 reading research; and from L2 reading research, (b) Chamot and O'Malley's (1994b) Cognitive Academic Language Learning Approach (CALLA); (c) Mokhtari and Sheorey's (2002) *Survey of Reading Strategies (SORS)*; and (d) Oxford's (1990) *Strategy Inventory for Language Learning (SILL).*

First of all, the RTA was adapted because it is based on the cognitive-constructivist theory of reading. This study was designed with a belief that students will learn and eventually control their reading strategies through proper scaffolding

(Vygotsky, 1978), which is removed when no longer needed. Palincsar and Brown (1984) identified the four reading strategies: Summarizing, Generating Questions, Clarifying Issues, and Making Predictions. These four strategy types were taken as the primary reading strategies for Korean students.

Because the RTA was originally designed to help L1 readers, strategy items from the *SORS* and the *SILL* that are used in L2 reading research were also examined. The items from the *SORS* were adapted because it emphasizes the importance of metacognitive and cognitive strategies in L2 reading, which conforms to the theoretical framework of this study (i.e., metacognition). The items from the *SILL* were also adapted because it has been used the most often in ESL/EFL strategy research and it has produced high reliability scores for groups throughout Asia.

The following eleven metacognitive and cognitive reading strategies were chosen and adapted to measure Korean participants' baseline reading strategy use before my intervention: (a) Planning, (b) Monitoring, (c) Evaluating, (d) Questioning, (e) Predicting, (f) Making Inferences, (g) Summarizing, (h) Finding Patterns, (i) Grouping, (j) Clarifying, and (k) Translation related strategies.

These 11 strategy items were divided into 45 items (see Appendix 1) with a Likert scale (to measure general reading strategy use) and with yes and no answers (to measure text-specific reading strategy use). I named it the *Inventory for Strategy Awareness-Raising (I-STARS)*, because this inventory was used to measure whether the participants' strategy use was influenced by the strategy instruction, which aimed to raise students' awareness of their own reading strategies. I also measured the participants' Korean reading strategy use while reading a Korean text. The

participants took the *I-STARS-Korean*, which has 43 items excluding the two strategies related to translation.

After developing the 45 items with an expert's help[3], I met Korean graduate students to improve the *I-STARS*. Cognitive interviewing is very effective for improving a questionnaire design because it usually needs small numbers of participants (i.e., 5 to 15 in a round) to test, review, and modify the items in several rounds (Willis, 2005). I interviewed 14 Korean graduate students in three rounds to improve the items and Korean translation. In the third round, no one was confused with the strategy items.

Since it was impossible to teach all 11 strategies in a relatively short period[4] (Nist & Simpson, 2000; Pressley, 1995), six core strategies to teach were selected: (a) Predicting, (b) Making Inferences, (c) Summarizing, (d) Finding Patterns, (e) Clarifying and (f) Grouping. The participants in this study might not have known of these strategies, and it was also possible that they might have automatically used these strategies without being able to describe them. Therefore, I named this strategy instruction Strategy Awareness-Raising for Success (STARS).

As discussed in the first chapter with Figure 1, the STARS excluded Planning, Monitoring, and Evaluating from the *I-STARS* because I expected that those strategies would be implicitly enhanced while learning Predicting, Clarifying, and Summarizing, based on the high reading proficiency of the participants in this study. In other words, when students use Predicting, they usually skim first to make predictions about a text,

[3] My dissertation char and academic advisor, Dr. Oxford is one of the best known strategy questionnaire experts.
[4] I taught reading strategies for two hours a week for 12 weeks excluding the three weeks for the pre-test, the midterm test, and the final test.

figure out its topic, and decide what to concentrate on and what to skim, which is closely related to Planning. When students use Clarifying, they must realize that something is wrong or confusing, which relates Clarifying to Monitoring. Also, students summarize after reading a paragraph or a text, which is expected to be related to Evaluating.

Also, Self-Questioning and Translating were excluded because self-questioning showed its effectiveness with a small number of participants, and translating was the strategy most familiar to Korean EFL students. The relationship between the *I-STARS* and the STARS is shown in Table 5.

Table 5

Relationship between the I-STARS and the STARS

RTA	*SORS*	*SILL*	*I-STARS*	
Predicting	Predicting	Predicting	Predicting	← STARS
Summarizing	Summarizing	Summarizing	Summarizing	
Clarifying	Clarifying	Clarifying	Clarifying	
	Making Inferences	Making Inferences	Making Inferences	
		Finding Patterns	Finding Patterns	
		Grouping	Grouping	
	Translating	Translating	Translating	
	Planning	Planning	Planning	
	Evaluating	Evaluating	Evaluating	
	Monitoring		Monitoring	
Self-questioning	Self-questioning		Self-questioning	

Key to Acronyms:
STARS: Strategy Awareness-Raising for Success
I-STARS: Inventory for STARS
RTA: Reciprocal Teaching Approach
SORS: Survey of Reading Strategies
SILL: Strategy Inventory for Language Learning

Note.

1. *I-STARS* consists of the 11 reading strategies, which were adapted from the RTA, the *SORS*, and the *SILL*.
2. Only six strategies (in the gray box) were taught using the STARS.
3. Planning, Evaluating, and Monitoring were excluded because those strategies were expected to be taught implicitly while learning Predicting (Planning), Clarifying (Monitoring), and Summarizing (Evaluating).
4. Translating was excluded because it is the most familiar to Korean EFL learners.
5. Self-questioning was excluded because a high student-teacher ratio made it difficult to take turns in dialogue to help students produce better questions as was done with a small group of students in the RTA.
6. Other strategies in the *SORS* and the *SILL,* not adapted in this study, were not listed.

I-STARS and the *I-STARS-Korean* were both translated into Korean, and the translation was checked by an individual with a master's degree who is a bilingual English teacher in Korea.

The *I-STARS* items include two kinds of scoring. The first type of scoring reflects whether students did or did not use the strategy on the immediately preceding reading task. The second type of scoring used a Likert scale from 1 to 5, with 1 representing "Never or almost never true of me" (i.e., rarely or never used) and 5 representing "Always or almost always true of me" (i.e., always or almost always used). See Table 6.

Table 6

Examples of the I-STARS

	Item	Did you do this **while reading the text you just read**?		How often do you do this **while reading in English in general**? Low → High
1	Before reading, I predicted what the text will be about, applying what I already knew while I read titles, subtitles, and the content list.	Yes	No	1 2 3 4 5
21	While reading, when a sentence or a paragraph was not clear to me, I repeatedly read it until I understood.	Yes	No	1 2 3 4 5
43	After reading, using key words, I summarized what I read at the end of the text.	Yes	No	1 2 3 4 5

Background Information Questionnaire

The *Background Information Questionnaire* was adapted from Oxford's (1990) *Background Questionnaire* (p. 282). Items were included concerning gender,

major, age, importance of English, enjoyment of English, and self-rated English reading proficiency (see Appendix 2).

The item assessing importance of English was as follows: "How important is it for you to become proficient in reading English?" Response options in the current study were: very important, important, somewhat important, not so important, and not important at all. The item measuring enjoyment of English was, "Do you enjoy reading in English?" Response options in the current study were: yes and no. The item assessing self-rated English proficiency was, "How do you rate your overall English reading proficiency as compared with the proficiency of other classmates?" Response options in the current study included: excellent, very good, good, fair, and poor.

Because the items on the *Background Information Questionnaire* were written in simple and easy English, they were not translated into Korean. The participants had no difficulty in understanding the questions, and they were allowed to answer them either in Korean or in English.

Journals

The students were asked to answer the given questions in a journal almost every week. The topics of the journals are listed in Table 7. The questions were written in Korean and the participants were allowed to answer them either in Korean or in English. The participants in the strategy instruction group were asked about each reading strategy they learned (see Appendix 3). For example, when they learned Predicting, they were asked:

- You just learned and practiced a reading strategy, Predicting. What do you think of Predicting? Do you consider it useful for your reading in English, or does it interfere?
- Why do you think so?
- We made predictions using a graphic organizer for Predicting in two ways: per text and per paragraph. Which is better for you?
- Why do you think so?
- If you can think of a better way to predict, please write it down.
- Are you going to use Predicting when you read an English text?
- Why do you think so?

Similarly, the students in the control group were also asked to answer questions, but the questions were different from those for the strategy instruction group (see Appendix 4). For example, they were asked:

- What is "reading comprehension"? Please write down a metaphor to define reading comprehension.
- Why do you define it so?
- With what and how should we evaluate "reading comprehension"?
- Why do you think so?

Table 7

Journal Entry Topics of the Strategy Instruction Group and the Control Group

Journal No.	Week	Strategy Instruction Group (see Appendix 3)	Control Group (see Appendix 4)
	1	About the open-ended questions in the *I-STARS*	About the open-ended questions in the *I-STARS*
1	2	About the Self-Rated Reading Proficiency About the Definition of Reading Strategy	About the Self-Rated Reading Proficiency About the Definition of Reading Strategy
2	3	About the Strategy, Predicting	About the Definition of Reading
3	6	About the Strategy, "Inference"	About the Definition of Reading Comprehension and its evaluation
4	8	About the Strategy, Summarizing	About a reading activity, Summarizing
5	9	Checking reading strategy use while reading a new text to see whether they used the strategies they learned so far	Checking reading strategy use while reading the same text to see whether they used reading strategies without learning (prior knowledge)
6	10	About the strategy, Finding Patterns (s+v)	About texts they like and hate to read
7	11	About the strategy, Clarifying	About favorite English learning Experiences
8	12	About the strategy, Grouping	Completing Vocabulary List
9	13	About identifying text genres they feel easy	About identifying text genres they feel easy
10	13 at home	About the self-evaluation of their improvement and the nature of the class of this study	About the self-evaluation of their improvement and the nature of the class of this study
	14	About the open-ended questions in the *I-STARS*	About the open-ended questions in the *I-STARS*

Note. The only difference between the strategy instruction group and the control group is the reading strategy instruction. While the strategy instruction group learned reading strategies, the control group learned more about words and grammar using the same materials. Writing journals were asked of both groups, because self-reflection plays a very important role in learning (Rubin, 2003), but mostly with different topics.

Lastly, in the 13th week, I asked two types of questions concerning how much they thought their reading proficiency improved and how much they thought my class differed from other reading classes. Unlike the other journals, which were answered in class, I asked them to write the answers in English and allowed almost a week to reflect on these questions at home and to express their thoughts and opinions in English properly.

Regarding the first type, the participants were asked:

- Think about your English reading speed, compared with other classmates. Do you read faster than the others?
- If yes, did the speed get faster than the beginning of this semester? What do you think helped you read faster than before?
- If no, did the speed get slower than or the same to the beginning of this semester? What do you think is its reason?
- Do you think your English reading proficiency has improved, compared with the first week of this class?
- If so, what made you think so? What has improved?
- If not, what do you think is the reason why your reading proficiency has not improved?

The second type of questions were:

- What made you take this English Reading class from among many other English classes?
- Have you ever taken English reading classes before?
- Do you think this class is different from other reading classes?

- If so, what do you think is different from other reading classes?
- If not, what do you think is the same as other reading classes?
- What was the best or worst thing in this class?

Think-aloud Protocols

In the first week, I asked the students in both groups to think-aloud while reading a text. The students voluntarily signed up and participated in producing think-aloud protocols. On every Wednesday from the second week to the 11th week, a couple of students from both groups met with me privately to produce the think-aloud protocols. Twenty-five students of the strategy instruction group and 27 students of the control group produced the think-aloud protocols while reading an unfamiliar text, *Quiz*. It took 20 to 30 minutes for each student. They read it to answer the reading comprehension questions. The text consisted of 354 words and four paragraphs. L1 reading research has used several types of the readability tests, including Fry's readability graph (1977). According to the graph (Fry, 1977), this text was appropriate for eighth graders (13 year olds) in the U.S. They were also allowed to provide think-aloud protocols in their L1, which was Korean in this study, unless they felt more comfortable talking in English, as in other think-aloud studies (Anderson, 1991; Davis & Bistodeau, 1993; Jimenez et al., 1996; Kang, 1999; Leow & Morgan-Short, 2004; Suh, 1999; Young, 1993).

The participants were told, "You will read an English text now to answer these questions. It is not a test. I'd like to know how you read to understand the text. Please make yourself comfortable and read it just like you read it at home by yourself. However, please read aloud and tell me whatever is on your mind while reading. I'm

not testing you and your English pronunciation, so don't worry too much about your pronunciation. I just want to follow your reading by listening to what you say out loud. If you have questions, please let me know. If not, start reading whenever you are ready."

Their protocols were transcribed in Korean first, and then translated into English. The English transcription was reviewed by a Korean-American bilingual. When the reviewer considered a couple of students' statements unclear, the researcher discussed it with the reviewer and resolved the gaps between the original verbal protocol and its translation.

Color-Coding as an Assessment Tool

The Korean EFL situation involves a very high ratio of students to teachers (around 40 to 1), which makes it difficult to collect qualitative data to see if intervention promotes learners' strategy use. In addition, the RTA (Palincsar & Brown, 1984), from which this study obtained the three important reading strategies, was mainly employed for a small group of students (Alfassi, 2004; Palincsar, 1986). This high ratio problem applied to this study too. This study tried a new simplified think-aloud protocol for high-ratio classes. I taught the participants to color-code the strategies they used while reading, in addition to thinking-aloud. While the students in the strategy instruction group were learning reading strategies, they were trained to color-code the strategies that they used while reading a text. For example, when they learned the first reading strategy, Predicting, they were trained to tag the parts (e.g., words, phrases, tables, and pictures) where they made predictions, using a red flag. Whenever they learned a new strategy, they practiced color-coding with another

colored flag in addition to the previous ones. For example, after they learned the second strategy, Making Inferences, they used a yellow flag for the parts where they made inferences, in addition to a red flag for the parts where they made predictions.

Throughout the semester, the participants in the strategy instruction group were asked to produce these colored codes seven times while reading eight different texts (7 in English and 1 in Korean). They color-coded on the eight different texts to show which strategies they used while reading a text and how often. When they looked confused, I let them practice color-coding on the two different texts, while checking for correct responses to finding a verb and its subject. The participants in the control group read the same texts only without color-coding.

Table 8

Purposes of Color-Coding

What Students Color-Code	Purpose of Color-Coding
Predicting	To assess strategy use
Predicting and Making Inferences	To assess strategy use
Subject and Verb of Each Sentence	To practice color-coding
Subject and Verb of Each Sentence	To practice color-coding
Predicting, Making Inferences, Summarizing, Finding Patterns, and Clarifying	To assess strategy use
Predicting, Making Inferences, Summarizing, Finding Patterns, Clarifying, and Grouping	To assess strategy use

Note. Students practiced color-coding by putting colored tags on a subject and its verb in each sentence. Before practicing it, because there were no right or wrong answers with color-coding their strategy use, they were not confident in color-coding. After checking the right answers of finding subjects and verbs, they were very confident with color-coding.

In the 14th week, all the participants read two unfamiliar texts (1 in English and 1 in Korean) while only the strategy instruction group was asked to color-code to show whether (and to what extent) they used the six strategies they had learned:

Predicting, Making Inferences, Summarizing, Finding Patterns, Clarifying, and/or Grouping. According to the Fry's readability graph (1977), the text was appropriate for college students (19 year olds) in the U.S.

To describe this new color-coding assessment briefly, it was expected to raise the awareness of the strategies that they learned, not the ones that they might use without learning. Because they had to consciously put colored tags about the learned strategies, they should have focused on the learned strategies more than the strategies they did not have to color-code.

Table 9

Colors of Reading Strategies

Reading Strategy	Color
Predicting	Red
Making Inferences	Yellow
Summarizing	Blue
Finding Patterns (s+v)	Green
Clarifying	Orange
Grouping	Pink

Reading Comprehension Tests

In this study, reading comprehension was defined as a meaning construction process using higher order skills (comprehending) beyond the abilities to understand words (decoding). Therefore, to discover any improvement in the participants' reading comprehension, the tests were developed as follows:

Structure of the Reading Comprehension Tests

As defined in Introduction chapter, in this study English reading comprehension proficiency was measured by (a) whether students were able to grasp

the main idea of a text, (b) whether they were able to figure out the intention of an author, and (c) whether they were able to find and use the text-based information such as the meaning of words.

The students took the three English reading comprehension tests: pre-test (see Appendix 5), midterm test (see Appendix 6), and final test (see Appendix 7). In addition, they took the two Korean reading comprehension tests: pre-test and post-test. The main reason I gave them the Korean tests was to produce the same pressure of reading a given Korean text to that of reading a given English text, not to measure their Korean reading proficiency. I considered students' pressure while reading for tests to be different from that while reading for pleasure or reading for learning.

Table 10

Reading Comprehension Tests

		English	Korean
Structure		Main Idea Intention of Authors Text-based information	Main Idea Intention of Authors Text-based information
Test	1st Week	Pre-test	Pre-test
	7th Week	Midterm Test	
	14th Week	(color-coding)	
	15th Week	Final Test	Post-test (color-coding)

As seen in the table above, the participants took the Korean post-test with the *I-STARS* in the 14th week, not in the 15th week with the final test. During the final test, I could not ask the participants in the strategy instruction group to color-code, because both groups took the final test in the same classroom at the same time. I let them read an English text and a Korean text with the *I-STARS* for both texts in the 14th week.

Pretest and Post-test

To control the topic familiarity, the Korean tests and the English tests had the same topic with different information. The topic of the pre-test was *Seasonal Affective Disorder*. The English test consisted of 555 words and eight paragraphs, which was excerpted from the textbook, *NorthStar: Low Intermediate*. It was an informative expository text, explaining symptoms, causes, and treatments. The Korean test consisted of 689 words and nine paragraphs, which was excerpted from a medical magazine. It is more an essay than an expository text. It described the symptoms to help people understand seasonal affective disorder, focusing on the fact that patients with the disorder should be considered to have a simple disorder to be cured like a cold, instead of treating them as having a full-blown psychosis.

The participants were asked to color-code on the English and Korean texts in the 14th week. The topic of the English text was *Engrish*, which is like Chinglish and Spanglish, only a more general term, and it consisted of 851 words and seven paragraphs. It was an informative expository text with various examples, adapted from a Wikipedia entry[5]. The Korean post-test was about *New Oral Language*, consisting of 709 words and seven paragraphs. It was excerpted from an example college entrance writing test, which was more an editorial to help students respond to an author's opinion.

[5] Wikipedia is "written collaboratively by volunteers from all around the world. With rare exceptions, its articles can be edited by anyone with access to the Internet" (http://en.wikipedia.org/wiki/Wikipedia:About). It generally includes very recent information of a topic, and I wanted to find a text that no participants knew of in order to control their background knowledge. Therefore, it turned out that none of the participants knew of this topic.

Midterm Test and Final Test

The midterm test and the final test were excerpted and adapted from the parts of the textbook, *NorthStar: Low Intermediate*. The midterm had 8 different short texts. It had 11 open-ended questions and eight multiple choice questions. Among the open-ended questions, six questions needed to be answered in complete sentences (not simple phrases), but they were allowed to write either in Korean or in English. Thus, there were few cognitive difficulties in answering the open-ended questions as they expressed their opinions and inferences. Because the control group students did not learn strategies, none of the participants were tested on their knowledge or use of reading strategies in the midterm test.

The final test had eight different short texts to ask about vocabulary and problem-solving abilities, as well as in the midterm test and the pre-test. It consisted of 14 open-ended questions and 10 multiple-choice questions. Seven of the open-ended questions required answers in complete sentences, and the participants were also allowed to write either in Korean or in English. The final test also did not include any questions related to reading strategies because of the control group.

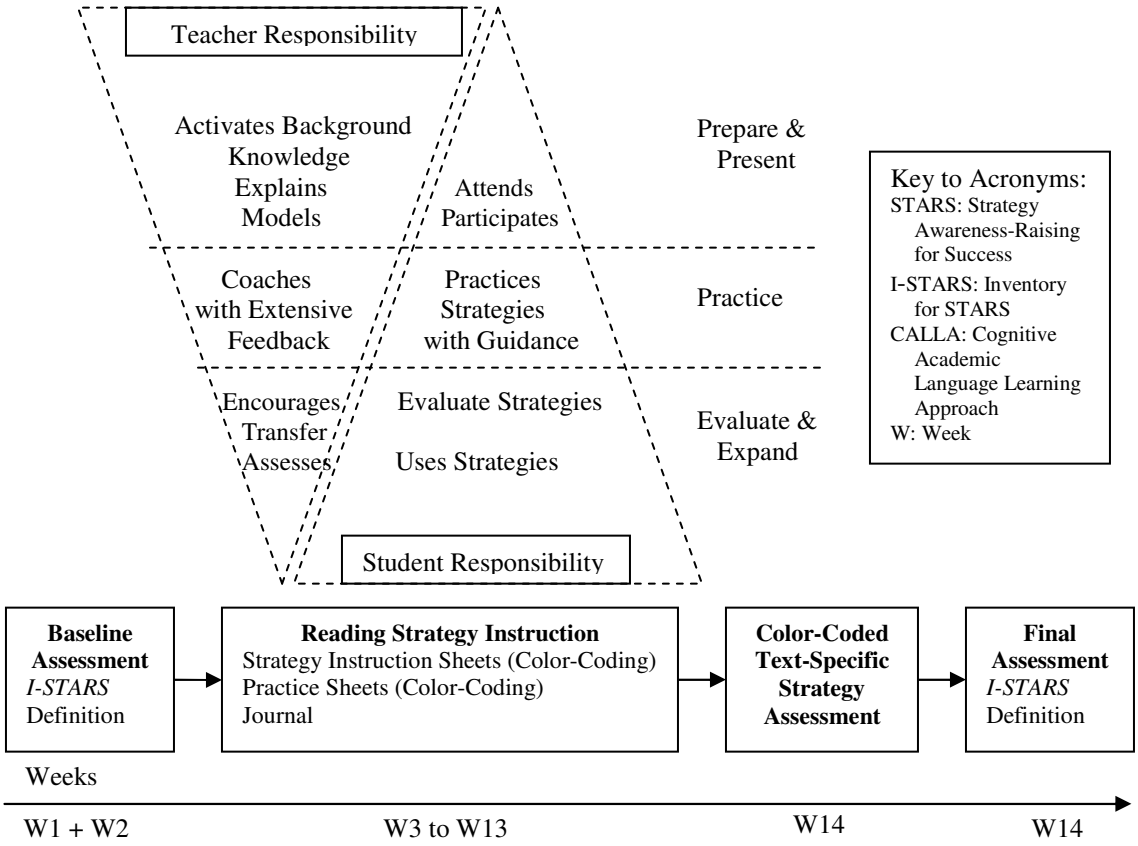
Description and Schedule of Intervention (Strategy Instruction)

In order to teach Korean EFL students English reading effectively, this study adapted reading strategy instruction methods generally from L1 research and a couple of reading strategy items from L2 research, resulting in the *I-STARS* and the STARS.

Regarding the procedures of teaching reading strategies, the CALLA was adapted because it was developed to teach L2 learners in a classroom setting. The Chamot and O'Malley's (1994b) framework (Figure 4) can be combined to the

macro-procedure of this study throughout the semester as follows (Figure 5). How I taught each reading strategy (micro-procedure) is shown later by week.

Figure 5. STARS: Combined with CALLA Framework



Note.

1. Solid line boxes show a macro-procedure for teaching the six strategies during one semester.
2. A dotted line figures show the CALLA framework for strategy instruction.
3. Reading comprehension tests: Pre-test (W1); Midterm Test (W7); and Final Test (W15)

In terms of strategy items, from L1 reading strategy instruction, the RTA (Palincsar & Brown, 1984) was adapted (a) because it was planned to help poor readers read as well as skilled readers (Alfassi, 2004; Pressley et al., 1992) and I assumed Korean EFL learners were weaker readers than native English speaking readers; and (b) because it showed its effectiveness of teaching strategies in a relatively short period and I taught Korean EFL students for two hours a week during

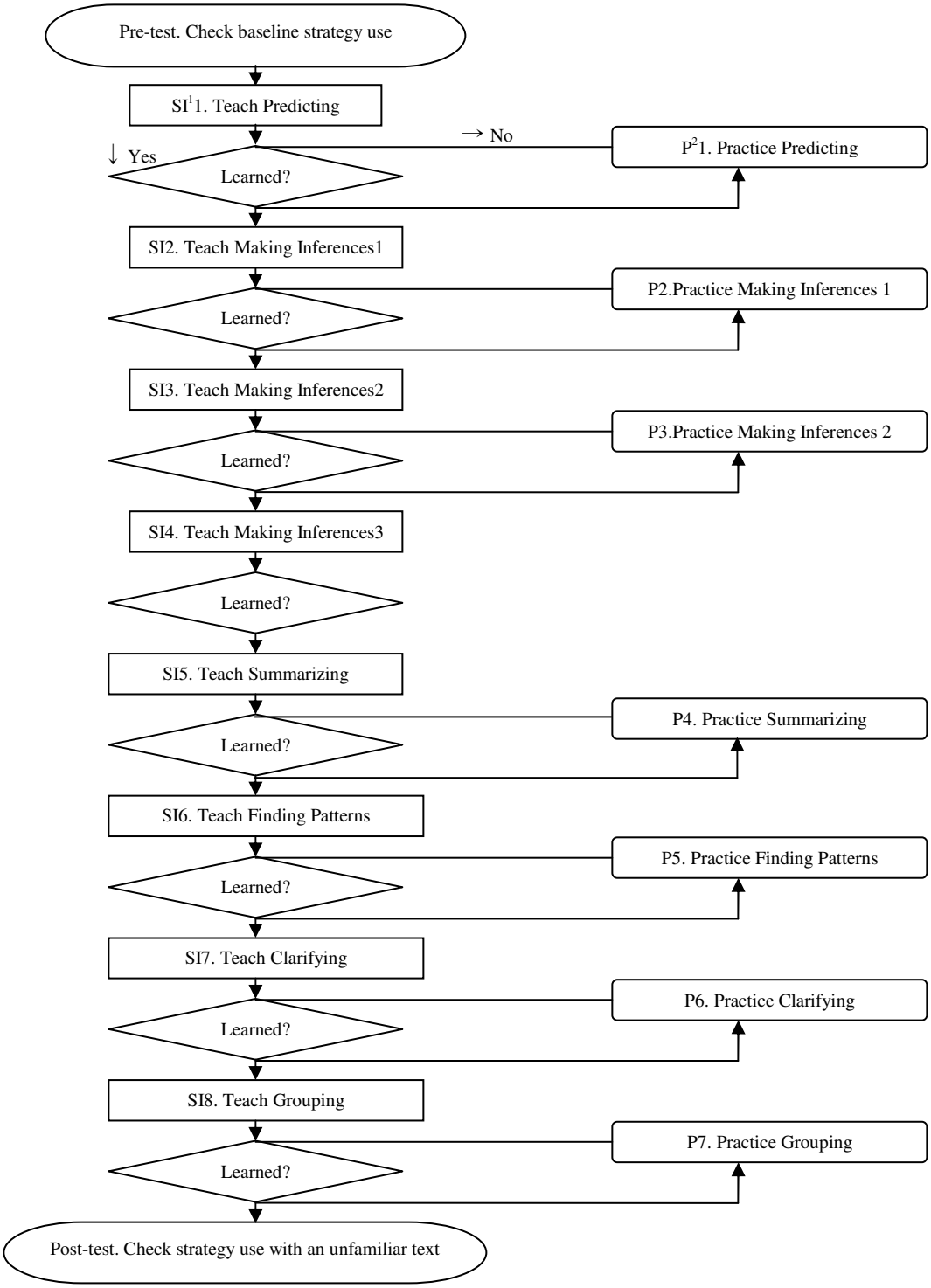
one semester. Also, direct explanations were explicitly provided (a) because previous research found that the RTA was most effective when direct explanations preceded (Alfassi, 2004) and it was possible for students not to notice the strategies displayed implicitly without direct explanation (Duffy, 2002; Pressley et al., 1992); and (b) because it was generally applied to a small group of participants while direct explanations were used for crowded classes (Alfassi, 2004). However, from the four strategies (Predicting, Questioning, Summarizing, and Clarifying) in the RTA, one strategy (Questioning) was excluded from strategy instruction even though it was asked in the *I-STARS* because it was inappropriate in crowded classes; instead, I used journals to observe their progress and to interact with the participants.

From the *SORS* (Mokhtari & Sheorey, 2002) and the *SILL* (Oxford, 1990) of L2 strategy research, I took six strategies to develop the *I-STARS* (Planning, Monitoring, Evaluating, Making Inferences, Finding Patterns, and Grouping). However, I decided to teach three of them (Making Inferences, Finding Patterns, and Grouping) because I believed that the Korean EFL learners would implicitly develop the other three metacognitive comprehension-monitoring strategies (Planning, Monitoring, and Evaluating) by learning the strategies taken from the RTA (Predicting, Summarizing, and Clarifying). In other words, I expected: (a) when students try to make predictions, they have to plan to skim first and read thoroughly based on their predictions. (b) While reading, they monitor their understandings by clarifying the confusing parts. (c) Also, they can evaluate their reading comprehension after or while reading by summarizing a text. Another reason that I did not include all 11 strategies in the *I-STARS* is that the previous reading strategy

research showed the effectiveness of teaching a small number of strategies in a certain period (for example, Palincsar & Brown, 1984; Pressley & Wharton-McDonald, 1997; Van Keer & Verhaeghe, 2005). Therefore, I chose to teach the six reading strategies in the following order: Predicting, Making Inferences, Summarizing, Finding Patterns, Clarifying, and Grouping.

I planned this study carefully to give the similar amount and type of materials to both groups, with the only difference being the strategy instruction. Based on the focus group meeting in the pilot study, I made a flowchart (Figure 6), which will serve as an instructors' manual for teachers in the future. Based on the flowchart, I prepared the strategy instruction materials. The control group received the same materials, but with no information on reading strategies. While the participants in the strategy instruction group wrote journal entries about each strategy they learned, the students in the control group wrote the journal entries too, but mostly with different topics. Because it was possible that writing while reflecting on what they learned might affect their reading comprehension, I let the participants in the control group write while reflecting on what was related to the reading (see Table 7 for different topics of journal entries of both groups).

Figure 6. Flowchart for Planned Reading Strategy Instruction (Figure 8 for its Implementation)



1. SI: Strategy Instruction
2. P: Practice

Weeks 1 and 2. Before Strategy Instruction

To measure the initial strategy use of the participants, I administered the *I-STARS* and the *I-STARS-Korean* in the first week. In the second week, I asked the participants to give their personal metaphor of reading strategies after asking whether they had known or heard of them before. Even though the control group would not have learned any strategies and they should have not gotten used to the concept of reading strategies, I thought that discerning all the participants' prior knowledge of reading strategies was necessary to see the improvement or change later through my strategy instruction.

Before this study, I assessed English learning strategy use of 1,110 Korean students, and discovered that their strategy use was significantly affected by their self-rated English proficiency. For this current study, I asked the participants to rate their English reading proficiency in the second week before starting strategy instruction.

Week 3 through Week 12. Reading Strategy Instruction

From the third week to the 12th week, the strategy instruction group learned the six reading strategies in addition to learning in a traditional way, while the control group learned with the same materials without strategy instruction in the traditional way (focusing on vocabulary and grammar) of English reading classes.

Each reading strategy teaching sheet has the following elements that Winograd and Hare (1988) proposed for effective strategy instruction:

- What a strategy is
- Why the strategy should be learned

- How to use the strategy
- When and where the strategy should be used
- How to evaluate use of the strategy

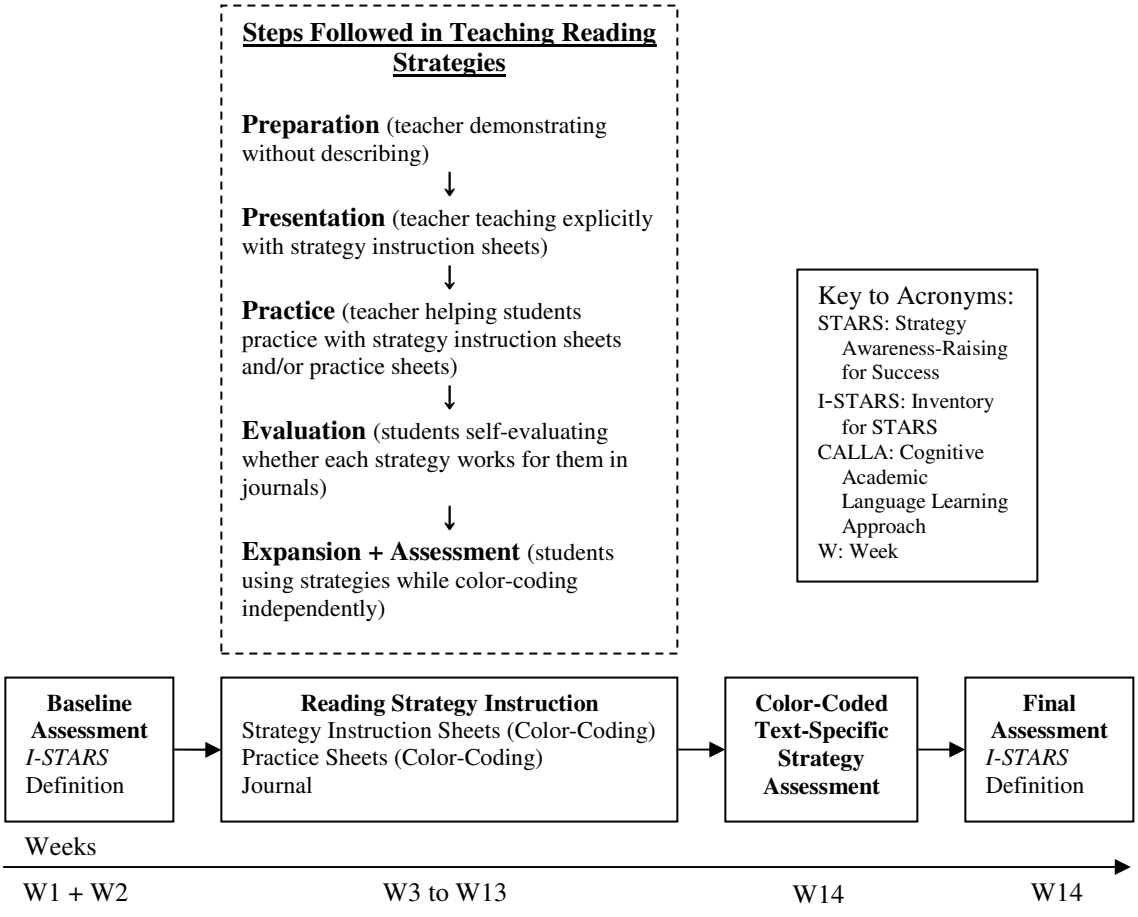
To teach reading strategies, I prepared the materials from Strategy Instruction (SI) 1 through SI 8, including Winograd and Hare's (1988) five elements for effective strategy instruction. I also prepared the practice sheets from Practice (P) 1 through P 7, just in case the participants might have difficulties understanding each strategy (for detailed procedures, see Table 12 and Figure 6).

Using those strategy instruction materials and practice sheets, I took steps (micro-procedure) to teach individual reading strategies (Figure 7): (a) Preparation—Before teaching each strategy, I demonstrated how to use a reading strategy without describing (b) Presentation—I gave the explicit definition and explanation of reading strategies. (c) Practice—I helped the participants can practice each strategy with relevant strategy instruction sheets and practice sheets. They were assisted in color-coding while practicing. (d) Evaluation—I emphasized that not all reading strategies are good for everybody, so after learning each strategy, the participants were asked to evaluate each strategy to see whether it was helpful for them. (e) Expansion and Assessment—The participants independently color-coded what parts they looked at to use each reading strategy while reading a new text.

In addition to that micro-procedure, I followed the macro-procedure: (a) before teaching reading strategies, I assessed the participants' initial reading strategy use using the *I-STARS* and asking them to define reading strategies with a metaphor (Baseline Assessment). (b) I taught the six reading strategies as shown in the micro-

procedure (Reading Strategy Instruction). (c) After learning all six reading strategies, the participants were given an English text and a Korean text. They color-coded while reading those texts. (d) To compare their reading strategy use with their initial reading strategy use, the participants took the *I-STARS* after the intervention and were asked to define reading strategies again.

Figure 7. STARS Procedure Based on the CALLA and Adapted for This Study



Note.

1. Solid line boxes show a macro-procedure for teaching the six strategies during one semester.
2. A dotted line box shows a micro-procedure for teaching individual strategies.
3. Reading comprehension tests: Pre-test (W1); Midterm Test (W7); and Final Test (W15)

Week 3. Example of Detailed Strategy Instruction for Teaching Predicting

In the third week, to the control group, I taught the text (from *NorthStar:*

Intermediate) in the traditional Korean way of teaching English reading classes. First, I walked through the new vocabulary and solved the given vocabulary questions in the textbook. While I was reading and translating sentence by sentence, I explained key grammatical points like gerunds and relative clauses. Then, I let the students answer the given questions about the text.

In contrast, to the strategy instruction group, I taught the same text but with less emphasis on vocabulary, grammar, and translation. Instead, I emphasized the importance of the first reading strategy, Predicting (i.e., the same text with different emphasis) between the strategy instruction group and the control group. It was chosen as the first strategy because it is one of the well-known before-reading strategies (text or paragraph level) and because I believed that almost all students were already using it either consciously or unconsciously. I thought that teaching Predicting would be a smooth introduction to reading strategies for the students. To teach it, I explained the five elements as follows (see Appendix 8):

1. What is Predicting?

- Making predictions of what the text will be about, before reading.

2. Why should Predicting be used?

- It helps you focus on the text with checking whether your predictions were correct.
- It helps you remember better what you read both when the predictions were correct and when they were not.

3. How can Predicting be used?

- Skimming the structure of a text (title, subtitles, etc.) / Skimming repeated

words / Skimming outstanding characters (bold, italic, etc.) / Skimming graphs or pictures.

- Predicting and monitoring with a graphic organizer (see Table 11).

4. When and where should Predicting be used?

- Before reading a text or before reading a paragraph (it is always good to check whether your predictions are correct).

5. How should the use of Predicting be evaluated?

- Making correct predictions is based on your reading ability. By checking your predictions after reading using the table above, your predicting ability will improve.

I prepared a table in which the participants could write their predictions before reading a text, what they used to make the predictions, and the actual information they found from the text while reading. I also let them evaluate how much their predictions were correct while reading. I demonstrated how to complete the table with the following example:

Table 11

Example of the Table for Predicting

	What you used to make predictions	Predictions before reading	Monitoring after reading	Correct?
E.g.	Title: Marriage Subtitles: Should we get married? / Checklist before marriage	It will be about advantages and disadvantages of marriage for those who will get married.	It describes the advantages and disadvantages of marriage, but it was written for those who will get divorced, not married.	Δ
P1				
P2				

P: Paragraph

I let them make predictions for each paragraph and for the entire text (from *NorthStar: Intermediate*). Then, I gave them some time to think about this strategy and to answer the given questions in the journal.

On the other hand, the control group was given the different questions in the journal. They were asked to define "reading" by providing their own metaphor and why they did so.

Week 4. Example of Detailed Practice of Predicting

When students understood the first strategy, Predicting, then they could learn the next strategy, Making Inferences. However, when they did not understand Predicting well, the practice sheet (see P1 in the Figure 6, Appendix 9) was used before going on to Making Inferences.

Based on my personal experiences as an English learner, Predicting can be confused with Making Inferences. Students might guess what each sentence means while they are reading instead of making predictions about the text or paragraphs before reading it. Therefore, the first practice sheet changed any misunderstandings of Predicting by emphasizing the differences between Predicting and Making Inferences. The practice sheet included:

- Misunderstanding 1. Predicting usually happens before reading to activate your prior knowledge about the given text. Checking whether your predictions were right after reading is important, but it is NOT the main activity of Predicting. You should not suffer from evaluating your predictions with reading the test over and over.

- Misunderstanding 2. Please don't brood over what the text will be. You can and should make predictions by skimming the text. When you make proper predictions about the text while skimming it, you will be able to distinguish what to read attentively from what to skip while reading. This will save you time when you get used to Predicting, by not wasting your time even before reading.
- Misunderstanding 3. It is not required to complete the graphic organizer for Predicting, which was given in the SI sheet. Don't worry about filling in the table. You can make predictions in your mind without writing. Writing itself should not waste your time.

Then, I demonstrated how to make predictions before reading a short text, which took less than five minutes. I let the participants do so by themselves with a new text (*Between the Devil and the Deep Blue Sea*). They were asked to color-code the parts they used to make predictions, with a red tag, for example, on the title, subtitles, and repeated words.

Weeks 4 to 6. Teaching Making Inferences

After the participants understood Predicting, I introduced the second strategy, Making Inferences according to the five elements of Winograd and Hare (1988) in the fourth week (Appendix 10).

In the fifth week, I demonstrated how to make predictions before reading the text from *NorthStar: Low Intermediate*, with a red tag, and how to infer what a pronoun and a new word mean using the context around them, with a yellow tag. Then the participants in the strategy instruction group read a new text (*Caste*) while color-coding (see Appendix 11). Then, I taught how to distinguish among facts,

inferences, and false statements, emphasizing that a true statement can be a fact or a true inference on a true or false quiz (see Appendix 12). To practice, I let the students read the text from *NorthStar* to identify whether the given statements were facts, inferences, or false statements (see Appendix 13).

In the sixth week, I emphasized how useful Making Inferences is because we cannot look up every new word, especially during a test, and taught how to make guesses of the meaning of new words using the context (see Appendix 14). Later, the students of both groups took the same vocabulary quiz (see Appendix 15). I taught how to use Making Inferences to answer the vocabulary quiz to only the participants in the strategy instruction group. However, the participants in the control group were taught the answers of the quiz by translating each question and focusing on grammar rules.

Week 8. Teaching Summarizing

Both groups learned and practiced a couple of similar activities because the activities, such as summarizing a text and identifying grammatical components (subject, verb, object, and so on), were typical in traditional reading classes as well as in strategy instruction class.

In the eighth week, the participants of both groups learned and practiced Summarizing. However, after a summarizing activity, the strategy instruction group was explicitly told that Summarizing is a useful reading strategy, why it is useful, where and when it can be used, and how to evaluate it (see Appendix 16), while the control group was not. Moreover, the strategy instruction group answered the questions in the journal while considering Summarizing as a reading strategy, but the

control group answered the same questions while considering it as a typical in-class reading activity.

Because Korean students tend to confuse Summarizing with Translating, based on my previous teaching experience, I asked the students to give a main idea briefly only of one to two sentences, instead of translating. In addition, I let the students summarize three different texts, one in English, one in Korean, and one in either Korean or English, whichever they felt would be more effective. This helped them decide which language, Korean or English, was better for them to summarize effectively.

Weeks 9 and 10. Teaching Finding Patterns (s+v)

Another activity typical in traditional reading classes is "identifying grammatical components". I let the participants of both groups find a verb and its subject for each sentence. The participants in the strategy instruction group were asked to put a yellow-green tag on a verb and a purple tag on its subject since they were used to color-coding. At first, they did not like finding grammatical components at all. However, after I demonstrated and explained to them that finding a verb and its subject is a very useful reading strategy (see Appendix 17), because they can understand sentences only by identifying verbs and their subjects, they became very excited about this strategy.

In contrast, I taught it to the participants in the control group as a typical grammar activity (e.g., speech parts and distinguishing five types of sentence structures) with no emphasis on its role as a reading strategy.

In the 10th week, when the participants in the strategy instruction group practiced Finding Patterns (see Appendix 18), they were actively engaged in this strategy. Those in the control group did similar activities to identify grammatical components and distinguish five types of sentence structures, but they were distressed about focusing on grammar itself.

Weeks 11 and 12. Teaching Clarifying

I expected the participants in the strategy instruction group would not benefit from this strategy because I thought that the strategy, Clarifying, would be helpful only for reading in L1 (or with much background knowledge of the topic). In the 11th week, I explained about the fifth strategy, Clarifying (see Appendix 19). I gave a difficult text (*Tantalize*) with several underlined sentences to the participants, and asked them to understand what the underlined sentences mean without using a dictionary at all, but only with reading aloud or repeatedly, or reading from the previous sentences. In contrast, the students in the control group read the same text to answer the seven reading comprehension questions.

Interestingly, in contrast to my expectation, the participants in the strategy instruction group said that Clarifying was one of their most frequently used strategies. I wanted to check whether they really understood, or whether they believed they did it while reading aloud or repeatedly rereading, or reading the previous sentences. Sometimes students mistake becoming familiar with something as a result of repeated exposure for understanding the content. Therefore, in the 12th week, I chose the most difficult part from the same text (*Tantalize*), and underlined one sentence with difficult words. I asked the participants in the strategy instruction group to write the

meaning of the underlined sentence, using only Clarifying (see Appendix 20). In their journals, I asked them to think carefully about whether Clarifying was helpful in understanding the underlined sentence. The students in the control group were asked to describe their favorite English learning experiences, instead of answering the questions related to Clarifying.

Week 12. Teaching Grouping

After the short reviewing activity about Clarifying, I taught the last strategy, Grouping (see Appendix 21). This last strategy is related more to decoding than comprehending; therefore, it is usually used to remember the words effectively after reading, rather than while reading sentences. At first, I let the students group the given words into whatever categories they thought them in common. After we shared why they grouped the words in such categories, we looked at the textbook, *NorthStar*. It asked the students to complete the given table which grouped the words, but gave no explicit explanation about Grouping as a reading strategy. To the strategy instruction group, I emphasized that these kinds of activities in many textbooks were designed to help students practice Grouping, either explicitly or implicitly. However, to the control group, I did not emphasize it as a reading strategy; instead, they were asked to complete the table as they had done in the previous English classes.

Later, the participants in the strategy instruction group were asked to answer the questions in their journals after grouping new words by themselves. The participants in the control group were asked to complete the vocabulary list (i.e., writing the meaning of new words or expressions).

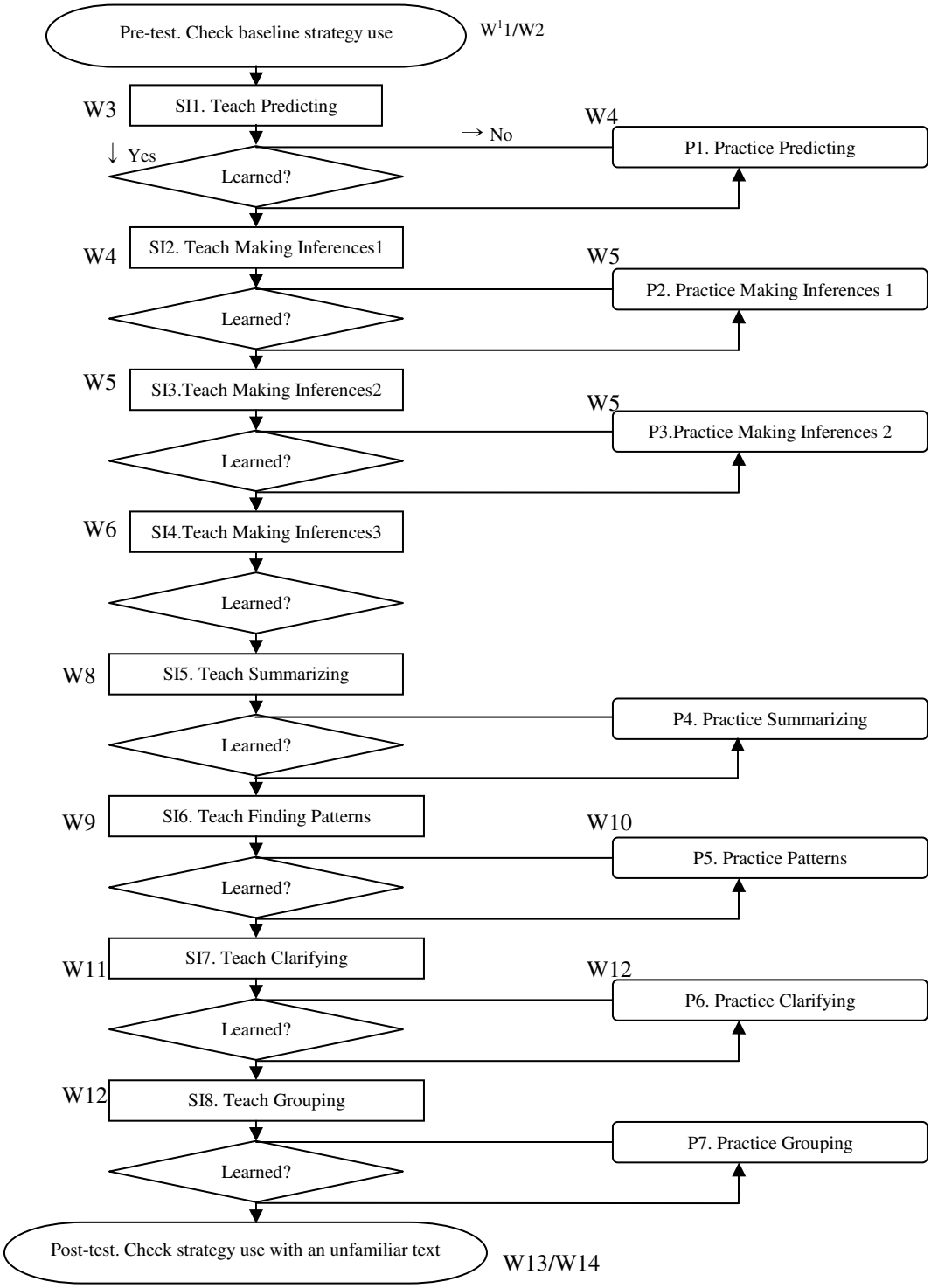
Weeks 13 and 14. After Strategy Instruction

After strategy instruction, in the 13th week, the participants of both groups were asked again to rate their English reading proficiency as a part of the *Background Information Questionnaire*, to identify any differences in pre- and post- self-rated English reading proficiency of both groups.

In order to check whether the participants of both groups considered the classes they took to be different from the previous reading classes, I asked them several questions as homework.

In the 14th week, when they took the post-test with the *I-STARS*, they were asked to give their definition of reading strategies again as a part of the open-ended questions of the *I-STARS*. This was to identify whether the explicit emphasis on reading strategies could make any differences in the participants' awareness of reading strategies, compared with a traditional reading class.

Figure 8. Flowchart with Actual Reading Strategy Instruction by Week



1. W: Week

Note. Figure 6 shows what I planned to teach before the semester began while Figure 8 shows when I taught each topic by week.

Data Collection Procedures

Throughout the 15 weeks, I collected quantitative and qualitative data from the participants in both groups, to identify any differences between the groups and any improvement or change as time went by.

Gathering Quantitative Data

The participants were tested on their pre-instruction strategy use (using the *I-STARS*) and both of their English and Korean reading proficiencies in the first week. Those who read a Korean text first might show significantly higher scores than those who read an English text first, and vice versa. Therefore, half of each group took the Korean test first and the rest took the English test first, in order to control the topic familiarity effect.

To compare this initial strategy use with the strategy use at the end, in the 14th week, all participants were given the same English text with the *I-STARS*, and only the strategy instruction group was asked to color-code while reading to see whether they used the reading strategies they had learned. Also, both groups took the Korean post-test with the *I-STARS*. Like the pre-test, half of the participants took the Korean test first and the rest read the English text first, in order to control the topic familiarity.

To compare the participants' improvement in reading comprehension, they took the midterm test and the final test, in addition to the pretest. In the seventh week, the participants took the midterm test. In the last week (15th), the participants took the final test. The final test had very similar structure to the midterm test.

Gathering Qualitative Data

In terms of prior knowledge of reading strategies, the participants were asked to define reading strategies by giving personal metaphors in the second week. The control group answered the same question about their initial, baseline prior knowledge of reading strategies in order to compare the control group with that of the strategy instruction group. If the control group had significantly more or less prior knowledge about reading strategies, then it might be difficult to say that strategy instruction promoted the strategy instruction group's reading comprehension more than the control group's. To see whether the strategy instruction group gained more knowledge of reading strategies, they were asked to define reading strategies again as one of the *I-STARS* open-ended questions in the 14th week. Because the strategy instruction was finished, I expected asking a question about reading strategies would not affect the control group much. Thus, the control group was also asked to give the definition of reading strategies again to check whether they also picked up some knowledge of reading strategies without explicit strategy instruction.

All participants were asked to rate their reading proficiency twice, in the second week and in the 14th week. The self-ratings of reading proficiency of both groups was compared to see whether the strategy instruction helped the participants in the strategy group feel their reading proficiency improved. In addition, they wrote as homework in the 13th week in English about how much they felt their reading improved.

From the third week to the 14th week (except for the midterm week), with the same texts and materials, while the strategy instruction group learned and practiced

each strategy, the control group were taught in a Korean traditional way. The participants in the strategy instruction group wrote about each strategy they learned, whereas those in the control group were asked questions related to reading, not to reading strategies, in order not to make them feel they were doing totally different things from the strategy instruction group. Through these journals, the change in the participants' awareness of and attitude toward reading strategies was observed.

Also, in the last journal, the participants were asked whether this class was different from other reading classes. I wanted to see whether the strategy instruction group was fully aware that they learned reading strategies, which is very different from traditional reading classes, and whether the control group did not notice any differences between my traditional way of teaching and other teachers'.

From the second week to the 11th week, 25 students from the strategy instruction group and 27 students from the control group produced think-aloud protocols while reading an unfamiliar text. Their think-aloud protocols were analyzed as complementary to the *I-STARS* for identifying the participants' reading behaviors.

Table 12 describes what the strategy instruction group and the control group learned and wrote in the journals each week.

Table 12

Data Collection Procedures by Week

	Strategy Instruction Group	Control Group
1	Pretest (English test + *I-STARS* & Korean test + *I-STARS-Korean*)	Pretest (English test + *I-STARS* & Korean test + *I-STARS-Korean*)
2	Taught the textbook to the two classes in the same way Journal 1. Self-Rated reading proficiency and Reading Strategies	Taught the textbook to the two classes in the same way Journal 1. Self-Rated reading proficiency and Reading Strategies

	Strategy Instruction Group	Control Group
3	Taught Predicting with the text from *NorthStar* Journal 2. Predicting	Taught the same text from *NorthStar*, in a traditional way: focusing on the vocabulary, grammar, reading while translating sentence by sentence, and answering the text's questions Journal 2. Definition of Reading
4	Practiced Predicting to clarify the misunderstandings of it Color-Coding: a red tag (text: *Between the Devil and the Deep Blue Sea*) Introduced Making Inferences (text from *NorthStar*)	Taught the same texts (*Between the Devil and the Deep Blue Sea,* text from *NorthStar*) in a traditional way
5	Color-Coding: Predicting with a red tag and Making Inferences with a yellow tag (text: *Caste*) Taught Making Inferences (text: *King Midas*) to distinguish fact, false, and inference Color-Coding: Predicting with a red tag and Making Inferences with a yellow tag (text from *NorthStar*)	Cloze-test with blanks every ninth word (text from *NorthStar*) Taught the same text (*Caste, King Midas,* text from *NorthStar)* in a traditional way Answering the questions in the textbook (true or false questions)
6	Practiced Making Inferences to make guesses of the meaning of new words using the context Vocabulary quiz (Making Inferences) Journal 3. Making Inferences	Same vocabulary quiz Journal 3. Defining reading comprehension and how to evaluate it
7	Midterm test	Midterm test
8	Taught Summarizing (three texts from *NorthStar*): asked them to summarize in English, in Korean, and in a preferred language Journal 4. Summarizing	Taught Summarizing with the same texts and asked them to summarize in English, in Korean, and in a preferred language because Summarizing is one of the typical activities in traditional reading classes too (without emphasizing it is a strategy) Journal 4. Summarizing
9	Asked the students to read the part of a text while finding a subject and its verb for each sentence, and then let them read the whole text Color-Coding: verb with a yellow green tag and subject with a purple tag Journal 5. Checking reading strategy use while reading a new text to see whether they used the strategies they learned so far	Let the students read the same text Journal 5. Checking reading strategy use while reading the same text to see whether they used reading strategies without learning (prior knowledge)

	Strategy Instruction Group	Control Group
10	Taught how well-known grammar activity, Finding Patterns (s+v), can be a reading strategy (text from *NorthStar*) Color-Coding: verb with a yellow green tag and subject with a purple tag Journal 6. Finding Patterns	Taught grammar in a traditional way (eight parts of speech, five types of sentence structures) Journal 6. Describing texts they like and hate to read
11	Taught Clarifying (text: *Tantalize*) Color-Coding: Predicting with a red tag, Making Inferences with a yellow tag, Summarizing with a blue tag, Finding Patterns with a green tag, and Clarifying with an orange tag (text from *NorthStar*) Journal 7. Clarifying	Taught the same text in a traditional way Journal 7. Describing favorite English Learning Experiences
12	Practiced Clarifying (part of *Tantalize*) Taught Grouping (text and exercise from *NorthStar*) Explained how they can use the strategies to answer the given questions in *NorthStar*, which offered questions only implicitly related to the strategies Journal 8. Grouping	Taught how to answer the given questions in *NorthStar* in a traditional way Journal 8. Completing the vocabulary list
13	Taught how to use the strategies (three texts from *Northstar*) Journal 9. Becoming aware of the text genres they feel easy Background Information Questionnaire (including self-rated English proficiency) Journal 10 (homework). Self-evaluation of the improvement and perception about the nature of this class	Taught the same three texts in a traditional way Journal 9. Becoming aware of the text genres they feel easy Background Information Questionnaire (including self-rated English proficiency) Journal 10 (homework). Self-evaluation of the improvement and perception about the nature of this class
14	Post-test (English text with color-coding + *I-STARS* & Korean test + *I-STARS-Korean*)	Post-test (English text + *I-STARS* & Korean test + *I-STARS-Korean*)
15	Final test	Final test

Note. The only difference between the strategy instruction group and the control group is the reading strategy instruction. While the strategy instruction group learned reading strategies, the control group learned more about words and grammar using the same materials.

Data Analysis Procedures

The data analysis procedures for quantitative data and qualitative data are as follows:

Quantitative Analysis

To discover any significant quantitative differences, the participants in the strategy instruction group and the control group were compared in terms of (a) the frequency of reading strategy use measured by the questionnaires and (b) the reading comprehension scores assessed by the pre-test, the midterm test, and the final test. In order to compare them, split-plot ANOVA's were conducted. Also, another split-plot ANOVA was run to examine the relationship between L1 and L2 reading strategy use. Table 13 summarizes how quantitative data was analyzed.

Table 13

Dependent Variables and Independent Variables for Quantitative Analysis

Research Question	Dependent Variables	Independent Variables	Analysis Type
RQ 2: Does reading strategy instruction relate to students' general reading strategy use? In other words, are there any significant differences in pre- and post- general reading strategy use between the strategy instruction group and the control group?	Repeated Measures (2 levels): General reading strategy use (*I-STARS*) in the pretest and the post-test	Non-repeated Measure (2 levels): Strategy instruction group and control group	Split-plot ANOVA
RQ 3: Does reading strategy instruction relate to students' text-specific reading strategy use? Put differently, are there any significant differences in pre- and post- text-specific reading strategy use between the strategy instruction group and the control group?	Repeated Measures (2 levels): Text-specific reading strategy use (*I-STARS*) in the pretest and the post-test	Non-repeated Measure (2 levels): Strategy instruction group and control group	Split-plot ANOVA

Research Question	Dependent Variables	Independent Variables	Analysis Type
RQ 6: Does reading strategy instruction relate to students' reading comprehension scores? In other words, are there any significant differences in pre- and post-reading comprehension scores between the strategy instruction group and the control group?	Repeated Measures (3 levels): Reading comprehension scores assessed by the pre-test, the midterm test, and the final test	Non-repeated Measure (2 levels): Strategy instruction group and control group	Split-plot ANOVA
RQ 8: To what extent are students' English reading strategies transferred to their Korean reading strategies?	Repeated measure (2 levels: Language differences of English and Korean	Non-repeated Measure (2 levels): Strategy instruction group and control group Repeated measure (2 levels): pre-test and post-test	Split-plot ANOVA

Qualitative Analysis

To provide greater in-depth understanding about the influence of strategy instruction on the participants, the journals, the open-ended questions of the questionnaires, the color-coding assessment, and the think-aloud protocols[6] were examined for each research question. How the qualitative data was analyzed is presented in Table 14.

Analyzing the students' narrative comments in the journals and the open-ended questions of the questionnaires was a recursive process while exploring data and reorganizing it (Miles & Huberman, 1984, 1994). First, I read the students' comments and took notes of how I felt and what the main theme of the comments was.

[6] Data from think-aloud protocols were not useful for analyses because the students were too nervous in front of their teacher, a grade giver. They read a text out loud before thinking aloud, and they said that they were not able to remember anything, which made it extremely hard for them to understand the text (for more information, see Chapter 4).

For example, when I received the first journal about Predicting, I skimmed through the comments and wrote down that "frustrating, surprised at their negative attitudes, interfering rather than helping." Second, I drew a table (matrix) by a topic to explore how the raw data can be reorganized. For example, I drew a matrix about the definitions of reading strategies: (a) in the first column, I wrote students' IDs; (b) in the second column, I quoted each student's definition given before the intervention; and (c) in the third column, I quoted his/her definition given after the intervention. Third, I identified common characteristics, such as grasping the main idea, planning, and finding a key point, so that I could code each definition by the common characteristics. Then, I reorganized the data by the characteristics (patterns).

Table 14

Techniques for Qualitative Analysis for Each Research Question

Research Question	Qualitative Analysis Techniques Matrix Display Technique (Miles & Huberman, 1984, 1994)
RQ 1: How does reading strategy instruction change students' knowledge of reading strategies?	♦ Comparing participants' definitions about reading strategies given at the beginning and the end of the semester (both groups) ♦ Analyzing participants' journal entries about each reading strategy (strategy instruction group) ♦ Comparing participants' writing homework about the self-evaluation of their improvement (both groups)
RQ 4: How does reading strategy instruction change students' attitudes toward reading strategies?	♦ Analyzing participants' journal entries (strategy instruction groups)
RQ 5: To what extent do students use strategies when reading a new text during and after reading strategy instruction?	♦ Analyzing participants' color-coding (strategy instruction group) ♦ Analyzing participants' think-aloud protocols (both groups)

Research Question	Qualitative Analysis Techniques Matrix display technique (Miles & Huberman, 1984, 1994)
RQ 7: How does reading strategy instruction change students' self-rated English reading proficiency?	♦ Comparing the self-ratings of the journal in the second week with those of the *Background Information Questionnaire* in the 13th week (both groups) ♦ Analyzing participants' journals about reading proficiency improvement in the 13th week (both groups)
RQ 9: How does reading strategy instruction change students' Korean strategy use?	♦ Analyzing participants' open-ended questions given at the end of the questionnaires (both groups)

Summary of This Chapter

This chapter described the methodology of the current study. This study was conducted in Korea for one semester. Korean EFL university students were recruited and their class was randomly assigned to one of the two groups: the strategy instruction group or the control group. The participants were diverse in terms of gender, age, grade, and major, but similar between the groups. The instrumentation used in this study was described, including the strategy questionnaire (*I-STARS*), reading comprehension tests, think-aloud protocols, color-coding assessment, and journals. Also, the intervention (reading strategy instruction, STARS) was described with the detailed schedule and the flowchart for teachers, showing the differences between the strategy instruction group and the control group. Lastly, the procedures to collect quantitative and qualitative data and the data analysis procedures according to each research question were presented.

CHAPTER 4: RESULTS

This chapter presents the results and findings of this study. The results of each research question are described in the following order: (a) research question 1 regarding the participants' prior knowledge of reading strategies; (b) research questions 2 through 5 regarding the participants' reading strategy use, including the utility of color-coding assessment; (c) research questions 6 and 7 regarding the participants' reading comprehension proficiency; and (d) research questions 8 and 9 regarding the relationship between English reading strategy use and Korean reading strategy use.

Knowledge of Reading Strategies

Because the main purposes of this study were to see whether strategy instruction would promote the participants' strategy use and ultimately improve their reading comprehension proficiency, their prior knowledge of reading strategies was first examined with the first research question: How does reading strategy instruction change students' knowledge of reading strategies?

In the second week, both the control group and the strategy instruction group were asked whether they had heard of reading strategies. They were also asked to define reading strategies using a personal metaphor similar to "A book is food for the mind." After the intervention, in the 14th week, both groups were asked to define reading strategies again.

Before the Intervention (Second Week)

When the participants were asked about reading strategies before the intervention, surprisingly, the majority of the participants in both groups said that

they had not even heard of reading strategies: 31 out of 41 (76%) respondents in the strategy instruction and 24 out of 39 (62%) in the control group. Moreover, the definitions given by the participants who had heard of reading strategies did not show that they really knew of reading strategies. None seemed to know what reading strategies are, while some of them had only partial knowledge of reading strategies.

Based on the recursive matrix display technique (Miles & Huberman, 1984, 1994), the participants' definitions were reorganized into (a) grasping the main idea of a text, (b) planning, (c) reading fast, (d) finding a key point, (e) ability, (f) repetition, (g) methods, (h) grammar, and (i) other. Table 15 shows how 31 students in the strategy instruction group, who did not hear of reading strategies before, defined reading strategies with their way, and Table 16 is about the definitions and the explanations given by the counterparts in the control group.

Table 15

Definition of Reading Strategies by Those Who Never Heard of Reading Strategies in the Strategy Instruction Group

	Students' Metaphors (Definitions)	Why They Defined Them So (Students' Comments)
Grasping main idea	Watering like river [flowing in the river]	We need to read something naturally with understanding, so it's important to get through with it without stopping.
	Flower of reading [the most important part in reading]	Because we can understand the main idea using reading strategies
	Helping us see the woods	If we read without thinking, we may not grasp main idea. But if we read strategically, we can see not only trees but also the woods.
	After watching the woods, looking for details (trees)	In that way, we can understand the content easily and fast.
	Feeling	I grasp the main idea of a text not details.
	Simple reading not translating English	There will be no one translating Korean texts. So we should read English without translating too.

	Students' Metaphors (Definitions)	Why They Defined Them So (Students' Comments)
Planning	The first step of learning English	I think reading strategies help us practice reading naturally through concrete plans.
	Sailing with a compass and a map on the sea	Reading without plans gives us nothing.
	A map to find a way	As a map helps us plan what ways to take to go somewhere, a reading strategy helps us in a similar way.
Reading fast	I have never thought about it. But if you ask me about reading strategies…. well, I'll define them as fighting with limited time.	I am a slow reader. I am always struggling to read fast in English, not only for my exams but also in daily lives.
	A method to help us read an English text fast	We need an effective way to read English fast.
	A shortcut to help us read fast	The expression, reading strategies, gave me an impression of know-how to read fast.
	A lever of reading	Because reading strategies help me read fast.
	Something helpful to read faster	
Finding a key point	Tweezers used to pick out a key point	It is not effective to read all. Using reading strategies helps us find a key point.
	Shopping on-line? I have never heard of it, so I just made a guess.	I shop on-line to select a good product carefully after comparing prices and qualities. Likewise, reading strategies help me find a key point.
	Finding a coin in the sands	Because I think we need to scan well to find a key point. Reading with finding a key point is very effective.
Ability	Getting an A+	At the beginning of semester, I always plan to get an A+, but it is never easy. So to me, reading strategy, like getting an A+, is an ability to do something well, but it is not always easy to everyone.
Repetition	Repeating steadily and make it a habit	I think doing everything steadily is very important. If I make reading a habit, it will improve.
	Martial arts	Practicing key points repeatedly

	Students' Metaphors (Definitions)	Why They Defined Them So (Students' Comments)
Methods	Effective cognitive methods	We need some other methods to help us read effectively
	A way of reading systematically	Because it is a strategy not ability.
	I don't exactly know what the reading strategy is all about. I assume that it leads you to know how to read English well.	I absolutely have no idea.
	An effective way to read	For example, reading after grouping and reading with liaison
	My own reading skills to read either in English or in Korean	
	A way to read and understand better	I think the reason why they are called strategies is that they are effective ways to read effectively.
Grammar	Finding a mother (verb) and a father (subject) in a sentence	I think verbs and subjects are the most important in sentences.
	Finding Willy	When you read, you should find a subject and a verb first. Finding a subject and a verb is a main activity done while reading.
	Reading strategy is a method to read fast without missing important thing.	To read something without losing key point can be useful. If I have a reading strategy, I can read some book during a short time, and I can read lots of book.
Other	Blue ocean	Blue ocean is an unexplored field.
	Listening from your eyes and your mind	Like when you are listening, if you don't concentrate while reading, you cannot understand at all.

Table 16

Definition of Reading Strategies by Those Who Never Heard of Reading Strategies in the Control Group

	Students' Metaphors (Definitions)	Why They Defined Them So (Students' Comments)
Grasping main idea	Reading like a river without stopping	I like reading naturally.
	Flowing water	Grasping main idea while reading without stopping is important.

	Students' Metaphors (Definitions)	Why They Defined Them So (Students' Comments)
Planning	Planning to read effectively according to genres of a book	Because I think reading strategies are plans to achieve a goal.
	A coach of a sport	Like a coach of a sport, reading strategies guide and plan what to do.
Reading fast	A shortcut to read fast	With reading strategies, we can read fast and understand well.
	A walking stick (cane)	Reading strategy helps read English fast.
Finding a key point	Find a key point while reading	I think every text is written to deliver a certain key point.
	Distinguishing a key point from unnecessary parts	
	Finding a solution (topic) to a riddle	If we find a topic, we can understand the text more than 80%.
	A shortcut to understand a sentence or a paragraph easily	Finding a key point easily with reading strategies
Ability	Ability to read a map	With the same map, different people need different amount of time to find a way based on their different abilities.
	Ability to understand	We can understand well when we know a lot of words.
Repetition	Breathing every day	We don't have to consciously think about how to breathe, but we do so repeatedly.
	Everyday life	If you don't practice every day, you may forget it.
Methods	A strong sword	To win a war, we needed a strong sword. Like the sword, we need an effective way to read.
	Reading without reading strategies is like fighting without a bullet at a war.	Reading strategy is a necessary method to succeed.
	A way to read effectively and easily	People think reading fast is important, but I think we should read strategically in order to translate well.
	A lever	As a lever lets move a big object with a small amount of force, a reading strategy helps read a difficult text with less effort.
	An approach run	It is like an approach run to run faster.
	A way or thought to read well	

	Students' Metaphors (Definitions)	Why They Defined Them So (Students' Comments)
Methods (continued)	A pack of cards	It can be a simple array of cards, and it can also be a full house or straight according to how you combine cards.
Grammar	Getting used to English grammar	Reading an English book, instead of the TOEIC workbook, is useful to learn English grammar better.
Other	I have never heard of reading strategy, but I think it is helping English learners build reading proficiency.	
	Because it is my first time to hear of it, I cannot define it.	

In Table 17 are the definitions and the reasons given by 10 students in the strategy instruction group who heard of reading strategies. Fifteen students in the control group also gave their definitions and reasons, summarized in Table 18.

Table 17

Definition of Reading Strategies by Those Who Heard of Reading Strategies in the Strategy Instruction Group

	Students' Metaphors (Definitions)	Why They Defined Them So (Students' Comments)
Grasping main idea	I have heard of it, but to be honest, I don't know what it is. Well, it is having quick-wits.	Even with many unknown words, if we have quick-wits, we can grasp main idea. If we can grasp main idea, we can understand the text well.
	Fishing without a hook	We cannot grasp main idea without a reading strategy.
Reading fast	Speed reading	I think reading strategically is deceiving myself. We should read simply with good intention to read.
	Skipping unimportant parts	Reading fast is very important in English reading.
Finding a key point	Finding a key point	The word, strategies, has the meaning of finding something well.
Repetition	Reading over and over	

	Students' Metaphors (Definitions)	Why They Defined Them So (Students' Comments)
Methods	A habit made while studying English	I think that reading strategies are my own effective ways made by long-term learning and studying by me. Of course, there can be others' effective ways too.
Grammar	A game finding subjects and verbs	If we can find subjects and verbs, well, there are not many sentences that we can't translate.
Other	Extending background knowledge	If I have much background knowledge, I can understand very fast.
	Reading aloud	When you can speak out loud in English, you can read well.

Table 18

Definition of Reading Strategies by Those Who Heard of Reading Strategies in the Control Group

	Students' Metaphors (Definitions)	Why They Defined Them So (Students' Comments)
Planning	A compass	With reading strategies, we will plan how to achieve a goal like when we have a compass on a sea.
Reading fast	Finding a topic fast	We need reading strategies to acquire a lot of information in a short time.
	A strongest weapon to find a key point	I experienced how important reading fast is, while studying the TOEIC.
	Survival kit	Reading fast will help us survive in this fast changing society.
Finding a key point	A skill to pick	Using reading strategies, I can read fast with finding only important parts.
	A shortcut to a goal	I can read a long text with finding only key points.
	Finding topic words of sentences	Because I learned to find topic words in my previous reading classes.
Ability	Outcome of efforts	We become able to read well if we make efforts.

	Students' Metaphors (Definitions)	Why They Defined Them So (Students' Comments)
Methods	A catalyst	Like a catalyst, reading strategies are effective ways to help read well.
	A milestone	Reading strategy shows a better way to read.
	Fishing using a net	A way to read effectively and accurately
Other	Remembering what I read	Reading strategies help me remember what I read
	I just heard of it. I don't know what it is exactly. I'll just say it is like a small boat on a sea.	Reading because I was forced to read is of no use.
	I have no idea.	I am not insincere. I really don't know.
	A baby's learning a language	I read something repeatedly when I can't understand. After I understand, I learn a new thing.

As seen in the tables above, few students had a clear idea of reading strategies. The definitions given by those who heard of reading strategies were not very different from the definitions given by those who did not; moreover, many of the definitions were from just partial understanding or were rough guesses of what reading strategies might be. In other words, the participants' baseline knowledge of reading strategies in both groups were very similar in that they did not know what reading strategies are and how reading strategies can be used to help them read effectively.

After the Intervention (14th Week)

After teaching the six strategies and emphasizing why, how, when, and where they can be used to the strategy instruction group only, I asked the participants in both groups to define them again at the end of the semester (14th week). After taking the *Inventory for Reading Strategy Instruction (I-STARS)*, the participants defined reading strategies as a part of open-ended questioning.

Compared to the definitions in the second week, those in the 14th week showed how much the participants in the strategy instruction group became aware of and were knowledgeable of reading strategies. Many participants in the strategy instruction group, 28 out of 38 (74%) students, defined reading strategies comprehensively, and the rest of them showed partial understanding. Also, I emphasized that they should reflect whether each strategy was helpful immediately after they learned or practiced it, adding that they should find reading strategies that worked for them. Therefore, the definitions given by the students in the strategy instruction group were based on their own experience and evaluation.

On the other hand, the participants in the control group, only 10 out of 34 (29%) students, gave quite comprehensive definitions, but based on general ideas rather than their own experience and evaluation. The other students in the control group considered reading strategies mostly as ways to find out what the goal of a text was or what the author's intention was, as I had emphasized with traditional teaching methods and the reading comprehension tests, instead of teaching reading strategies.

To summarize, Table 19 compares the comprehensive definitions given by the strategy instruction group and by the control group. Even though several students in the control group gave comprehensive definitions, they were still based on their general understanding. In contrast, the definitions given by the strategy instruction group were based on their experience and evaluation while using the reading strategies in class.

Table 19

Examples of Comprehensive Definitions by Both Groups

Strategy Instruction Group	Control Group
♦ My own ways to help me understand a text more comfortably, fast, and easily. I found that all good strategies cannot be effective for everyone. I found my ways in this class. ♦ A way to maximize the effectiveness of reading under the same conditions. I experienced that reading with reading strategies were better than simply reading without them. ♦ Tools helping me read and analyze a text effectively in a given time. When I used reading strategies, I wasn't frustrated with any genres of texts. ♦ Some methods helping me understand what I'm reading. I actually got great help from reading strategies. ♦ Tools letting me read effectively and understand what I don't know well. In the text I just read, there were so many new words I didn't know and complicated sentences I couldn't translate, but I could understand them using reading strategies. ♦ Some tools to help me understand a text better. I could concentrate on the text while I was predicting, making inferences, and so on.	♦ Reading and understanding fast and effectively. ♦ As a lever can help us lift easily and effectively, reading strategies help us read and understand a text very fast and effectively. ♦ Tools to read and understand effectively or more within a limited time. ♦ Reading effectively based on the purpose to save time. ♦ I'm not sure, but based on the survey I just took, reading strategies are reading with setting a goal, planning, summarizing after reading, and checking the goal after reading, to make the text understood.

The strategy instruction was expected to help learners traverse their *ZPD*, resulting in promoting their strategy use and eventually helping them improve reading comprehension. More specifically, this study showed how reading strategy instruction could raise the awareness of reading strategy use and help students learn strategies.

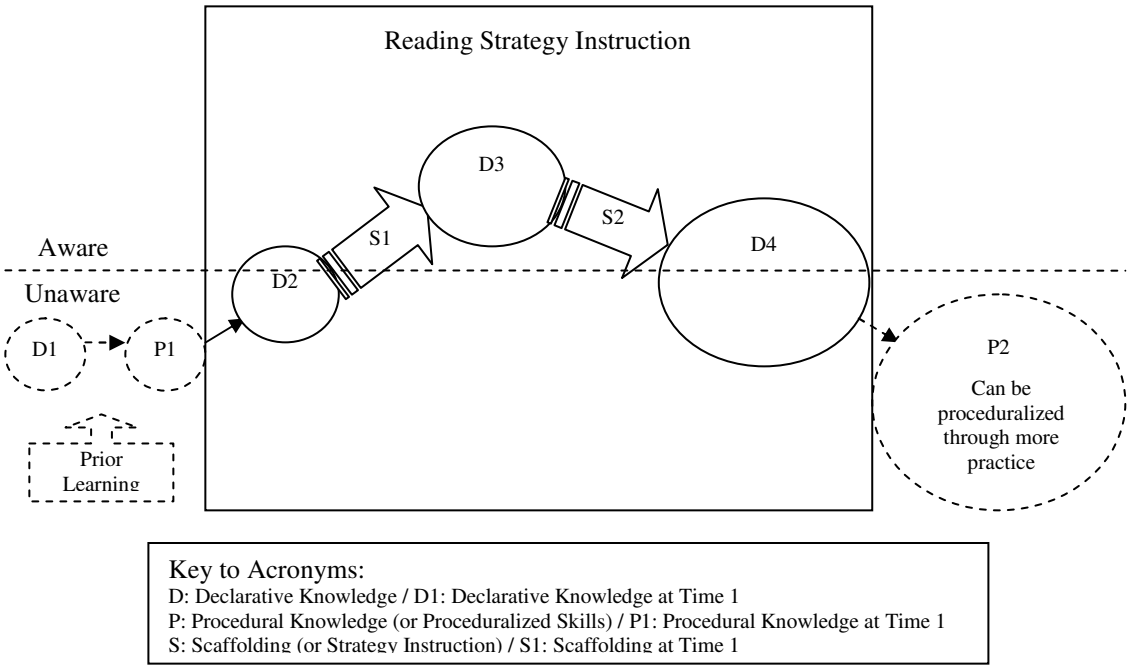
First, for the students who did not know any reading strategies, the strategy instruction helped them learn a new strategy. When I taught explicitly what a reading strategy is, why it should be used, how it is used, and when and where it can be used, students acquired a declarative knowledge about the strategy. When I helped them practice using the strategy, the strategy became their procedural knowledge (i.e., automatized skills). According to Cohen (1995), a strategy is no longer a strategy when students can do it without conscious planning to use it (see also Schmeck, 1988).

Second, for the students who were already using automatized skills either from their previous English reading classes or from their Korean reading classes, the strategy instruction helped students raise the awareness of their automatized skills (procedural knowledge) so that they could bring the skills back to reading strategies and to transfer them to a new task.

Also, the reading strategies that were brought back to consciousness were proceduralized again through practice during strategy instruction so that students could use them for the new task. However, these proceduralized skills are not the same as the ones that they had before the intervention; for example, suppose there is a student who was reading aloud (Clarifying1) as his/her learning habit. He/she learned it as one of the reading strategies and practiced when and where to read aloud and why some sentences should be read aloud (Clarifying2). Even after he/she can read aloud without conscious planning, this reading aloud habit (Clarifying2) is advanced more than his/her previous habit (Clarifying1).

When asked to define reading strategies at the beginning of the semester, the students could not do well because their reading strategies were proceduralized (or because they did not have any prior knowledge about reading strategies). However, after the strategy instruction, they could bring back their knowledge about reading strategies (or learn the reading strategies). They even showed wash-back effects of learned strategies while reading in their native language (Korean). Figure 8 shows how my reading strategy instruction helped the students learn a new reading strategy and consciously bring a strategy transferring it to read a new text.

Figure 9. Strategy Instruction for Raising Strategy Awareness



Note.

1. D1 and P1: Students might have already learned and been using some reading skills from prior learning.
2. D2: When students took the *I-STARS* and were asked to define reading strategies before the intervention, it is possible that their strategy awareness started to be raised.
3. S1 and S2: Through the reading strategy instruction with the journals and color-coding, students were explicitly taught reading strategies.
4. D3: Students' awareness of reading strategies are promoted by reflective activities such as the journals and color-coding assessment.
5. D4: Students' reading strategies started to become proceduralized as a result of instruction, but they can still report their strategy use.
6. P2: If students keep practicing, they can use the strategies automatically, but in a better way.
7. Reading strategy instruction in this study, the STARS, explains the part within the box.

To summarize, before the intervention, the participants in both groups did not have prior knowledge of reading strategies or they could not describe what they were doing to read well. The participants in the strategy instruction group were able to build a concept of reading strategies through explicit strategy instruction. However, the students in the control group considered reading strategies as I had emphasized while teaching in a traditional way focusing on translation and grammar.

Reading Strategy Use

In order to identify to what extent and in what way the reading strategy instruction affected the participants' reading strategy use, the results of research questions 2 through 5 are presented.

The participants answered two types of questions in the *I-STARS*: how frequently they used each strategy while reading English in general (general reading strategy use), and whether they used each item while reading the immediately preceding text (text-specific reading strategy use). Research question 2 was regarding general reading strategy use, and the participants answered how often they used each item using the Likert frequency scale. Research question 3 was to ask the participants of the text-specific reading strategy use, whether or not they used an item while reading an immediately preceding text, so a binary answer was used. Through research question 4, the participants' attitudes toward reading strategies were investigated. Research question 5 was formed to see whether or how often the participants in the strategy instruction group used each strategy that they learned.

Table 20 shows the results of the reliability analysis regarding the scales (α) of the *I-STARS* and the *I-STARS-Korean,* which were high in both the pre-test and the post-test.

Table 20

Reliability of the I-STARS and I-STARS-Korean in the Pre-Test and the Post-Test

I-STARS				*I-STARS-Korean*			
Pre-Test		Post-Test		Pre-Test		Post-Test	
General Reading Strategy (n=61)	Text-Specific Reading Strategy (n=61)	General Reading Strategy (n=55)	Text-Specific Reading Strategy (n=60)	General Reading Strategy (n=69)	Text-Specific Reading Strategy (n=70)	General Reading Strategy (n=67)	Text-Specific Reading Strategy (n=69)
.90	.82	.91	.82	.93	.85	.95	.83

Results for Research Question 2: General Reading Strategy Use

As noted above, the research question 2 was: Does reading strategy instruction relate to students' general reading strategy use? In other words, are there any significant differences in pre- and post- general reading strategy use between the strategy instruction group and the control group?

In order to discover whether the strategy instruction influenced the participants' general reading strategy use more than the traditional reading class, the split-plot ANOVA was conducted with one repeated measure ("time": pre-test and post-test) and one non-repeated measure ("group": strategy instruction group and control group).

The results of the *I-STARS* in the pre-test (in the first week) showed that the participants used reading strategies sometimes (2.92 and 3.01: medium use) while reading in English in general. No big differences between the groups were observed.

Similarly, the results of the *I-STARS* in the post-test (in the 14th week) did not show much increase, compared to when they took the pre-test. As seen in Table 21, the results of the post-test were almost the same as the results of the pre-test.

Table 21

Profile of General Reading Strategy Use

	Pre-test	Post-test
Group	General Strategy Use (Likert, 1 to 5)	General Strategy Use (Likert, 1 to 5)
Strategy Instruction	2.92 (n=38)	3.04 (n=38)
Control	3.01 (n=34)	3.06 (n=31)

To summarize, the split-plot ANOVA showed neither significant main effects between the pre-test and the post-test, nor significant main effects between the strategy instruction group and the control group. In addition, there were no significant interaction effects between the two measures. The results were almost identical.

Results for Research Question 3: Text-Specific Reading Strategy Use

Regarding the participants' text-specific reading strategy use, the research question 3 was: Does reading strategy instruction relate to students' text-specific reading strategy use? Put differently, are there any significant differences in pre- and post- text-specific reading strategy use between the strategy instruction group and the control group?

In the pre-test (in the first week), as expected, the text-specific strategies were almost the same between the two groups (see Table 22). This means that before the intervention, the participants in both groups did not use many strategies (.46 and .44) while reading the text right before taking the *I-STARS*. After the intervention, at the

end of the semester (in the 14th week), the strategy instruction group showed a bigger difference (.46 to .54) than the control group (.44 to .47).

Table 22

Profile of Text-Specific Reading Strategy Use

	Pre-test	Post-test
Group	Text-Specific Strategy Use (Used=1, Not used=0)	Text-Specific Strategy Use (Used=1, Not used=0)
Strategy Instruction	.46 (n=37)	.54 (n=38)
Control	.44 (n=34)	.47 (n=31)

In order to find whether this difference is statistically significant, the split-plot ANOVA and follow-up comparisons were conducted. As in research question 2, one repeated measure ("time": pre-test and post-test) and one non-repeated measure ("group": strategy instruction group and control group) were used.

In contrast to the general reading strategy use, the text-specific reading strategy use, which participants reflected on after reading a preceding text in class, showed a difference between the groups at the post-test. According to the split-plot ANOVA, "time" (post-test to pre-test) had significant main effects. This means that the participants employed more text-specific strategies when reading the English text at the end of the semester (post-test) than at the beginning of the semester (pre-test).

Because the main effects of "time" were tested using the mean scores of the pre-test and the post-test without distinguishing the strategy group from the control group, the follow-up comparisons were conducted to discover whether the strategy instruction group, in particular, used more text-specific reading strategies in the post-test than in the pre-test. See Table 23 for the results.

Table 23

Tests of Within-Subjects Effects (Between the Pre-test and the Post-test)

Source	Type III SS	df	MS	F	Sig.
Time	.06	1	.06	6.76	.011
Time * Group	.04	1	.04	4.45	.039
Error(Time)	.55	66	.01		

In order to identify whether there were significant simple effects of "time" within each group, two pairs were compared: (a) the pre-test to the post-test of the strategy instruction group; and (b) the pre-test to the post-test of the control group. Accordingly, the alpha values were adjusted (.025=.05/2).

The dependent t-tests between the pre-test and the post-test within each group found a significant simple effect only within the strategy instruction group (see Table 24), which means that the strategy instruction group used their text-specific strategies after the strategy instruction significantly more than before ($p<.025$), but the control group did not change during the semester.

Table 24

Simple Effects of the Time (Text-Specific Reading Strategy Use within Each Group)

Group		Mean	SD	t	df	Sig.
Strategy Instruction	Post-test – Pre-test	.07	.14	3.25	36	.003
Control	Post-test – Pre-test	.01	.12	.37	30	.715

Regarding the group differences, as seen in the Table 25, there were no significant main effects of "group," which means that the strategy instruction group did not use more strategies than the control group throughout the semester. However, there were significant interaction effects between "group" and "time," which means

that the strategy instruction group used more strategies than the control group at some point, though not throughout the whole semester. To discover when there were significant differences between the groups, the follow-up comparisons were conducted. In other words, the main effects of "group" were examined using the total means of the pre-test and the post-test without distinguishing the post-test from the pre-test, the follow-up comparisons were conducted to discover whether the strategy instruction group used more text-specific reading strategies in the post-test, in particular, than the control group.

Table 25

Tests of Between-Subjects Effects (Between the Strategy Instruction Group and the Control Group)

Source	Type III SS	df	MS	F	Sig.
Intercept	31.05	1	31.05	960.54	.000
Group	.04	1	.04	1.11	.295
Error	2.13	66	.03		

In order to see whether there were significant simple effects of "group" within each test, two pairs were compared: (a) the strategy instruction group and the control group at the pre-test; and (b) the strategy instruction group and the control group at the post-test. The independent t-tests within each test showed that the differences in the participants' text-specific strategy use between the strategy instruction group and the control group were significant neither at the pre-test nor at the post-test (see Table 26). However, at the post-test, the strategy instruction group did use text-specific strategies more than the control group ($p<.05$), but it was not significant because the alpha was adjusted ($\alpha\leq.025$).

Table 26

Simple Effects of the Group (Text-Specific Reading Strategy Use within Each Test)

Group		Mean	SD	t	df	Sig.
Pre-test	Strategy Instruction	.46	.16	.451	69	.653
	Control	.44	.14			
Post-test	Strategy Instruction	.54	.13	2.07	67	.042
	Control	.47	.15			

To summarize, while general reading strategy use did not show any differences between the two groups and between the two time periods, the participants in the strategy instruction group used more text-specific reading strategies after the strategy instruction than before; moreover, they used the strategies more than the control group after the strategy instruction.

Results for Research Question 4: Attitudes toward Reading Strategies

Research question 4 was: How does reading strategy instruction change students' attitudes toward reading strategies?

Because research questions 2 and 3 were created to discover any quantitative change of reading strategy use, influenced by the strategy instruction, research question 4 was examined to see whether the strategy instruction changed the participants' attitudes toward English reading strategies. The narrative comments of the participants in the strategy group were analyzed.

Unlike my expectations, the participants' reactions to the strategies were strongly negative at first. Many of them said that using a reading strategy was very difficult and overwhelming. Their negative attitudes continued until they experienced actually using a strategy and understood it was easier than they expected.

Negative At First

The first strategy that I taught was Predicting. The participants learned what it is, why it should be used, how to use it, when and where it should be used, and how to evaluate its use, according to Winograd and Hare's (1988) framework. Then they practiced how to predict using a table while reading an English text, and they wrote the narrative comments about this first strategy in the journal.

When I taught Predicting, the participants were very confused and did not want to predict. They wrote in the journal that they would read right after receiving a text rather than make predictions about a text before reading, adding that they had lived well without Predicting. Many of them (22 out of 41) said that Predicting interfered with their reading instead of helping. Eight students said that they had no opinion. When asked whether they would use it in the future, 17 students were not going to use it in the future, and 22 students passively agreed to use it, saying, "Because you (the teacher) said it is useful, I will try to use it" and "If you say it is good for me, I may use it." The most common reason they decided not to use it was, "Using a new strategy takes more time than reading using my reading habits so far. I don't feel any need to change my reading habits. I have read well so far."

Starting to Change Positively

I taught the second strategy, Making Inferences, for two and a half weeks, because the participants had a hard time differentiating Predicting from Making Inferences. I taught Making Inferences in two levels—global and local. In a global sense, I emphasized how we understood the meaning of a text even though every detail was not written, we make inferences unconsciously. Since strategies involve

conscious planning to achieve a goal (Schmeck, 1988), I helped the participants utilize their awareness in making inferences while reading a text. Up until that week, the participants' resistance against using a strategy was quite strong (15 students were adamant they did not want to use the second strategy either).

However, as soon as I taught how to make inferences from the meaning of a new word using its context, in a local sense, the students' attitudes toward reading strategies started to change significantly. All except for one student decided to use Making Inferences early on. The one student who did not make the shift and decided not to use the Making Inferences strategy said that he could not use the strategy simply because he had too a thin vocabulary repertoire. At that point, most started to consider Predicting not too difficult, saying, "I thought that making predictions before reading took a lot of unnecessary time, but now, I think it is kind of doable within a very short time." From the third week to the sixth week, the participants learned those two reading strategies, and in the sixth week, finally, their attitudes towards the reading strategies turned positive.

After the midterm test, the third strategy, Summarizing was taught. Traditional English reading classes have emphasized the importance of Summarizing too, so the participants did not feel it to be very new. Therefore, I just asked them to find a way for them to summarize effectively. I told them Summarizing is one of the most useful reading strategies, and that they should find an easy way to do it. I asked them to summarize in English, in Korean, and in their preferred language while reflecting on what will help them summarize better. I also asked them (a) whether they summarize while reading, (b) if so, whether they summarize each paragraph or

an entire text, and (c) if they summarize by drawing a picture or a graph, writing, or using a table.

Most students, 24 out of 30 students, answered they preferred summarizing in Korean. Several students answered, “I summarize in English when a text is easy” and “I cannot summarize in English, because my English proficiency is not high enough to write in English, even though I consider summarizing in English to be better than in Korean.”

Because they already knew about Summarizing, they did not show any negative reactions to this strategy; instead, they tried to use it actively while searching for a better, more efficient way of summarizing. The participants started to accept and react to reading strategies more positively, but I still received comments that indicated confusion from the students. It was not easy for several students to shift their paradigm; Summarizing was just a class activity or often the reason why they read (i.e., they had to read a text to complete a summary or to answer in relation to a summary during a test). They felt it difficult to consider it as a reading strategy (means) to understand a text well (end).

Emotionally Welcoming Reading Strategies

When they learned the fourth strategy, Finding Patterns, their attitudes towards reading strategies changed remarkably toward very positive. Because it has been a major part of grammar lessons in Korean traditional reading classes, they felt very comfortable identifying subjects and verbs. Since they had experienced how a traditional activity (Summarizing) can be used as a reading strategy, they accepted this strategy even more positively. When I demonstrated how to grasp a main idea by

finding verbs and their subjects without dealing with grammar or details much, the students embraced it as a reading strategy with great comfort. All except for two students said that they will use this as a reading strategy or that they have used it already. One of those students said, "I think I have to practice this more to see if it is valuable as a reading strategy, not just related to grammar. I'll use it later if it turns out to be effective." The other student said, "I'll just read without consciously thinking of grammar." The student, because he was in the U.S. until he was a sixth grader and in a Japanese international school from the seventh grade to the 12th grade, struggled with grammatical terms.

Interestingly, once understanding the effectiveness of reading strategies, they seemed very open to any strategy. The next strategy was Clarifying, which is reading aloud, rereading or reading from the previous sentences to make a confusing part clearly understood. When I prepared material for this strategy, I expected the participants to have some difficulties. I thought that this strategy would help students while reading their native language because reading repeatedly or aloud (without Making Inferences) can only help straighten out confusing parts, though not help make understood unknown parts. Thus, I expected negative reactions to this strategy, but many (28 out of 36 students) decided to use it in the future because it was effective. Twenty students actually answered reading aloud, rereading or reading from the previous sentences helped them understand what they could not at first.

In order to check whether this strategy helped them understand the unknown parts, I let the participants translate different parts without looking anything up in a dictionary, while using only Clarifying. I did not want them to get the impression that

understanding only because repetitively reading a section provided a familiarity with the expression. I adapted Dole et al.'s (1996) rubric to score the translation or summarization (see Table 27). I hired two raters who are Korean-American pre-service teachers in the U.S. They did not know each other, and scored the participants' translation or summarization at the same time, based on the rubric. Their scores were very similar and the mean score was 2.25 (out of a possible 4), which means that the participants understood only a part of the given sentence. In contrast to the low scores, they felt that they understood all after reading aloud or repeatedly. In other words, repetition gave some of them feeling of knowing, but it did not actually help them understand.

Table 27

Scoring Rubric for the Translations with Clarifying

Score	Criteria
4	A summary that includes necessary text-based information. Grammatically correct, logical, proper length.
3	A summary that includes necessary text-based information. Partly ungrammatical (Sentence fragments).
2	A summary that included part of key information. Partly ungrammatical, illogical. Either too long or too short.
1	Only a list of some key words.
0	Nothing redeemable. Including inappropriate/ irrelevant text-based information (i.e., supposed to write in English, but wrote in Korean, or vice versa).

The last strategy was Grouping, which is usually used to remember words or expressions after reading a text. Many of them (24 out of 38 students) had never heard of this strategy before. After practicing how to use Grouping—making chunks to remember well, 26 students found it effective and useful, and they decided to use it in the future. While they agreed to use a strategy passively at the beginning, they now

showed their own reasons to keep using it, such as, “because I learned how chunking was helpful before in my psychology class,” “because I can retrieve grouped words better,” and “because memorizing words with Grouping gives me 500% more effectiveness!”

Several students’ comments at the end of the semester showed how their attitudes toward reading strategies changed as time went by: (a) “As I mentioned previously, the various reading strategies you had suggested did not seem appealing but rather troublesome. But as I got used into the strategy, I was able to read faster and more accurately than before”; (b) “I found strategies difficult at first but I made constant efforts during the semester. After all, I believe strategies are a kernel of English reading”; and (c) “I have confidence in reading after I had practiced making inferences of a new word during the class.” Lastly, one of those who were very negative about the usefulness of Predicting wrote at the end of the semester, “Predicting strategy has been good for me.”

To summarize, the participants’ attitudes toward reading strategies were very negative at first, but as they felt more comfortable with using them, they embraced the reading strategies very actively. Before the midterm, the participants had hard time getting used to reading strategies, and they wanted to stick to their old habits. However, after the midterm, when they realized that what they were already using could be a useful strategy, their attitudes toward reading strategies became very positive. Then, they actively and positively tried to use new reading strategies they learned.

Results for Research Question 5: Assessing Reading Strategy Use and Color-Coding Assessment

Research question 5 was: To what extent do students use strategies when reading a new text during and after reading strategy instruction? To answer this question, I asked the participants in both groups to volunteer to produce think-aloud protocols while reading an English text at least once and let the participants in the strategy instruction group produce color-coding while reading eight different texts (7 in English and 1 in Korean). I examined the results of this question as evidence to support one of the main purposes (influence of strategy instruction on strategy use) and one of the secondary purposes (effectiveness of color-coding assessment for measuring text-specific strategy use).

Color-Coding Assessment

In addition to their answers on the strategy questionnaires and their journal entries after learning a reading strategy, the participants in the strategy instruction group were trained to mark a text with sticky color tags if they used a reading strategy. Because it was quite a crowded class, it was almost impossible to meet about 40 students to record their think-aloud protocols several times. Even though I met with more than half students to record their think-aloud protocols once during the semester, I needed to come up with a different way to observe their strategy use during the semester. Therefore, I devised color-coding system to simplify the procedures of thinking-aloud. When I taught a new strategy, I let the participants practice using a sticky color tag to mark where they used the strategy while reading.

When the participants were asked to put a red tag on the words or parts of a text where they made predictions before reading, a few said, "What? How am I supposed to know where I made predictions?" and "Oh, it took me so much time even before reading. I ran out of time while reading, so I couldn't put in the tags." However, once they got used to it, they felt more comfortable with color-coding than thinking-aloud in front of me.

The participants color-coded the reading strategies they used four times while learning the strategies. When they were learning the strategy, Finding Patterns, they color-coded verbs and subjects twice in order to let them get used to color-coding with checking correct answers. Lastly, as a summative evaluation, they color-coded all the reading strategies they had learned in the 14th week. Table 28 presents the color-coding schedule for the purpose of color-coding, the titles of the texts, and the color-coded parts.

Table 28

Color-Coding Schedule

Purpose	Week	Text	Color-Coded Strategies
Assessing Strategy Use	4	*Between the Devil and the Deep Blue Sea*	Predicting
	5	*Caste*	Predicting, Making Inferences
	5	*Save the Elephants Fund* from the *NorthStar*	Predicting, Making Inferences
	11	*Good-bye to Housework* from the *NorthStar*	Predicting, Making Inferences, Summarizing, Finding Patterns, Clarifying
Practicing Color-Coding	9	*Circuit Court Mail*	Verbs, Subjects
	10	*Email System Developer* from the *NorthStar*	Verbs, Subjects
Final Assessment of Strategy Use	14	*Engrish* (in English) *New Oral Language* (in Korean)	Predicting, Making Inferences, Summarizing, Finding Patterns, Clarifying, Grouping

As noted before, the participants struggled most with the first strategy, Predicting, and accordingly, they had the hardest time color-coding it because it was their first time. When they were asked to color-code what parts they used to predict about the text, they struggled a lot. Based on their color-coding, students' understanding of Predicting was grouped as follows: (a) Predicting Globally (see Figure 10): 9 students out of 40 students (23%) made predictions about a text by reading the title and the first sentences of paragraphs; (b) Predicting Locally (see Figure 11): 5 students (12%) made predictions about a text by finding out repeated words, mostly italicized words; and (c) Confused Predicting (see Figure 12): most students (26 students, 65%) tried to make predictions at first, but turned out to read a text thoroughly. The color-coding showed that many students belonged to the third type, which was why they considered Predicting difficult and could not differentiate it from Making Inferences, because they guessed the sentences or words while reading thoroughly.

Especially, regarding the third type, the participants tried to find repeated words to make predictions at first, but they changed to reading the entire text thoroughly while underlining and marking as seen in the examples (Figure 12). After reading the entire text while underlining, they put the red tags on what they thought difficult, which was why they said, "It took so much time. I would rather read without predicting." The students were not using the strategy of Predicting; instead, they were reading and marking difficult parts.

Figure 10. Examples of the First Color-Coding Assessment (Predicting Globally)

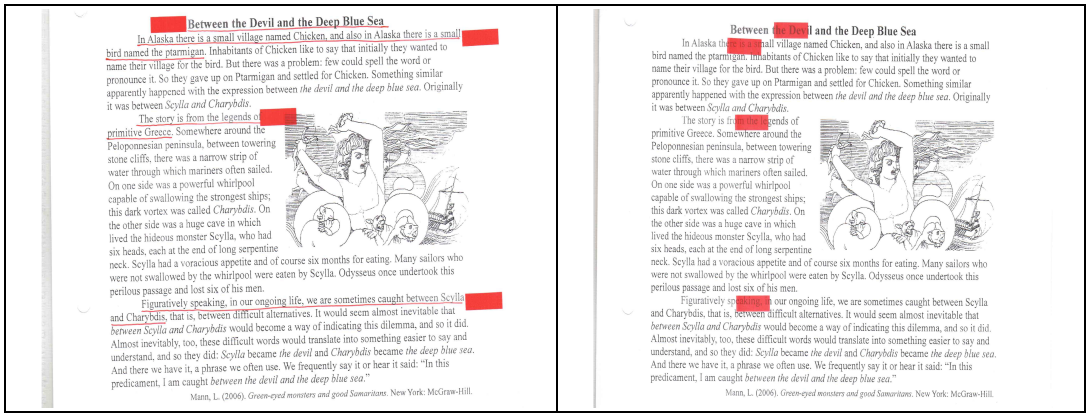


Figure 11. Examples of the First Color-Coding Assessment (Predicting Locally)

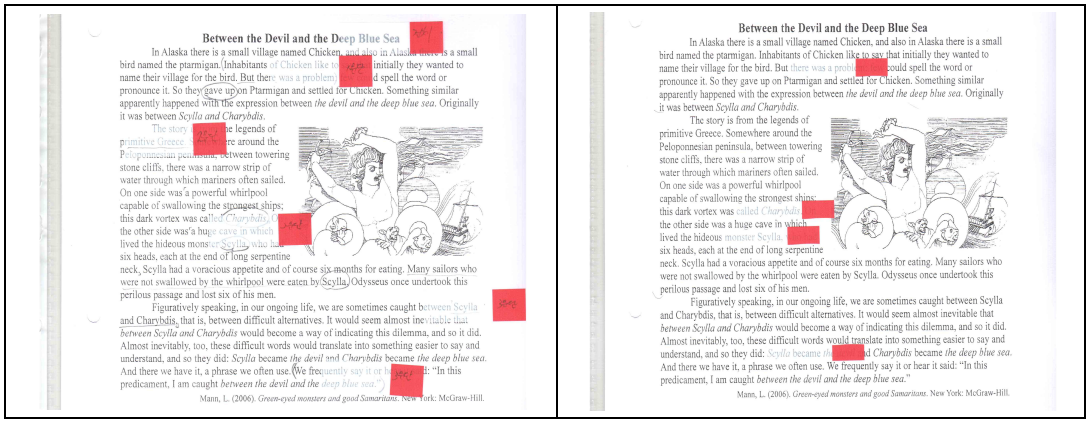
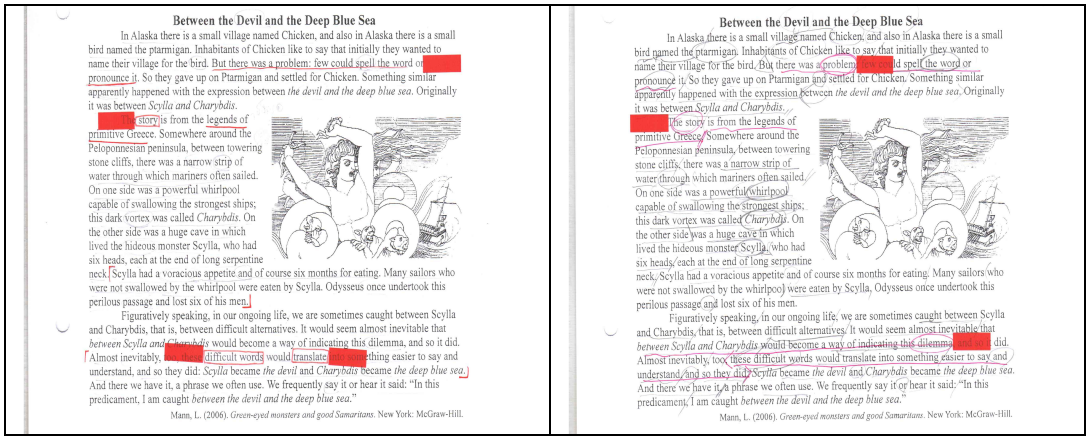


Figure 12. Examples of the First Color-Coding Assessment (Confused Predicting)



In order to help the participants differentiate Predicting from Making Inferences, I gave them the practice sheet on the misunderstandings of Predicting. I chose a very short text to let them practice color-coding the two strategies. Because most Korean students learned about the Indian caste system in high schools, I expected them to have some background information. As expected, they searched words like "caste, India, strict, rigid, and prohibited," to check if the text was about the caste that they knew (see Figure 13). Then, they tried to figure out new words using the context while reading (yellow). One student with high reading proficiency knew almost all words, so he made inferences about the pronouns to figure out what the pronouns referred to (see Figure 14).

Figure 13. Examples of the Second Color-Coding Assessment

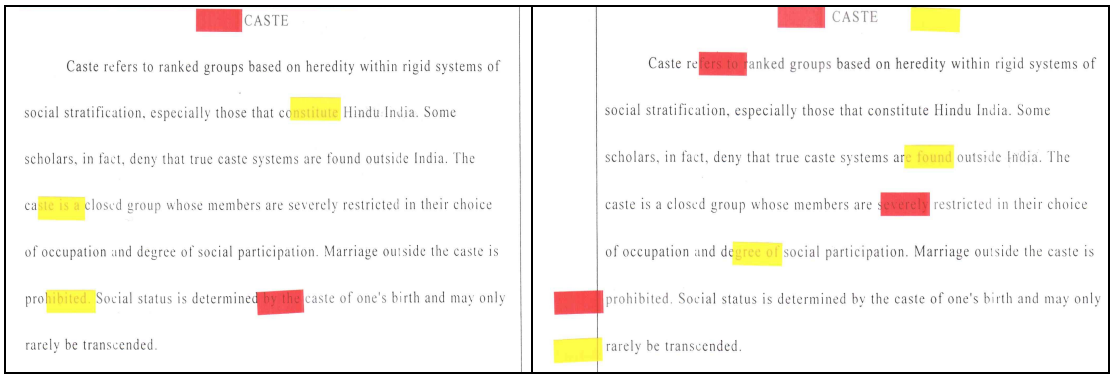
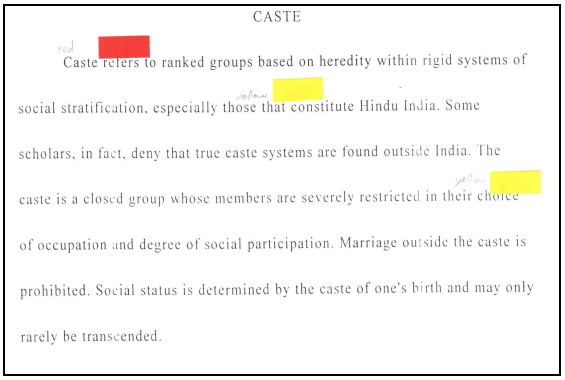
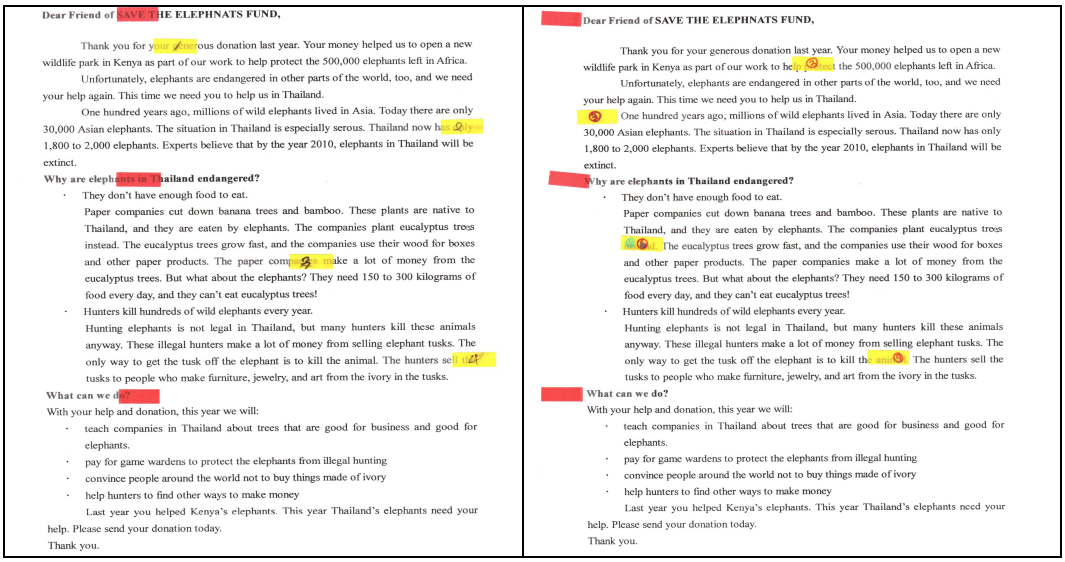


Figure 14. Example of the Second Color-Coding Assessment (By a Student with Higher Proficiency)



As they showed while reading the text, *Caste*, they seemed not to have problems differentiating Predicting from Making Inferences any more. In order to make sure, I let them color-code these two strategies again while reading a new text in the fifth week.

Figure 15. Examples of the Third Color-Coding *Assessment*



Dear Friend of SAVE THE ELEPHNATS FUND,

Thank you for your generous donation last year. Your money helped us to open a new wildlife park in Kenya as part of our work to help protect the 500,000 elephants left in Africa.

Unfortunately, elephants are endangered in other parts of the world, too, and we need your help again. This time we need you to help us in Thailand.

One hundred years ago, millions of wild elephants lived in Asia. Today there are only 30,000 Asian elephants. The situation in Thailand is especially serous. Thailand now has only 1,800 to 2,000 elephants. Experts believe that by the year 2010, elephants in Thailand will be extinct.

Why are elephants in Thailand endangered?

- They don't have enough food to eat.
  Paper companies cut down banana trees and bamboo. These plants are native to Thailand, and they are eaten by elephants. The companies plant eucalyptus trees instead. The eucalyptus trees grow fast, and the companies use their wood for boxes and other paper products. The paper companies make a lot of money from the eucalyptus trees. But what about the elephants? They need 150 to 300 kilograms of food every day, and they can't eat eucalyptus trees!
- Hunters kill hundreds of wild elephants every year.
  Hunting elephants is not legal in Thailand, but many hunters kill these animals anyway. These illegal hunters make a lot of money from selling elephant tusks. The only way to get the tusk off the elephant is to kill the animal. The hunters sell the tusks to people who make furniture, jewelry, and art from the ivory in the tusks.

What can we do?

With your help and donation, this year we will:

- teach companies in Thailand about trees that are good for business and good for elephants.
- pay for game wardens to protect the elephants from illegal hunting
- convince people around the world not to buy things made of ivory
- help hunters to find other ways to make money

Last year you helped Kenya's elephants. This year Thailand's elephants need your help. Please send your donation today.

Thank you.

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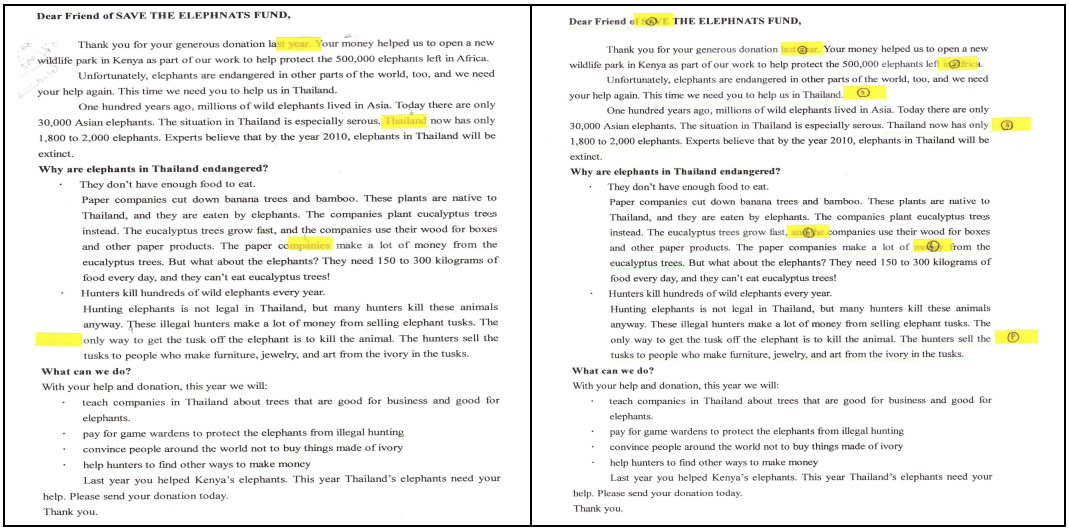
Thank you.

Figure 16. Examples of the Third Color-Coding Assessment (Without Predicting)



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Fourteen students (35%) made predictions using the title and the subtitles (see Figure 15)[7], while the rest of them (65%) did not use the strategy of Predicting at all (see Figure 16). In the journal, the participants preferred Making Inferences to Predicting, so they might have decided not to use Predicting. However, it is still possible that many participants still did not get used to making predictions before reading.

Because there were no right or wrong ways of placing colored tags, the participants were nervous about color-coding. They were not sure how to color-code. Therefore, I decided to let the participants color-code verbs and subjects in order to make them more comfortable with color-coding because finding verbs and subjects is very familiar to them. In addition, they were able to check whether they were doing color-coding correctly. After they put a yellow-green tag on each verb and a purple tag on its subject (see Figure 17), we went over the answers together. On the next day, they practiced color-coding verbs and subjects again with a short text. They became used to color-coding and did not express difficulty with it again.

[7] In this case, no one predicted locally (i.e., based on repeated words or italicized words). However, they made inferences of unknown words (locally) not of sentences or paragraphs.

Figure 17. Examples of the Color-Coding Assessment (Subject + Verb)

After I confirmed that the participants got used to color-coding, I let them color-code the five strategies they had learned so far: Predicting, Making Inferences, Summarizing, Finding Patterns, and Clarifying. They became very good at color-coding and interestingly, most of them used Predicting (11th week). As noted in the results for research question 4, after the participants' attitudes toward reading strategies changed, they were positive about using the strategies, especially Predicting. Table 29 shows what types of reading strategies that the students used while reading the text. Except for three students (8%), all used Predicting with different combinations of reading strategies. Compared with the students' color-coding in the fifth week (35% of the students used Predicting passively; see Figures 15 and 16),

there was very dramatic change in the 11th week (92% of the students used Predicting actively).

Table 29

Combination of Used Strategies Shown in the Color-Coding Assessment (11th Week)

Predicting (Red)	Making Inferences (Yellow)	Sum (Blue)	Finding Patterns (Green)	Clarifying (Orange)	Students Using the Combination	Interpretation
O					2[1]	Only Predicting
O		O			5[2]	Predicting and Summarizing
O	O				4	Predicting and Making Inferences
O	O	O			3	Predicting, Making Inferences, and Summarizing
O	O			O	3	Predicting, Making Inferences, and Clarifying
O		O		O	3	Predicting, Summarizing, and Clarifying
O		O	O		2	Predicting, Summarizing, and Finding Patterns
O			O	O	1	Predicting, Finding Patterns, and Clarifying
O	O	O	O		3	Predicting, Making Inferences, Summarizing, and Finding Patterns
O	O	O		O	6	Predicting, Making Inferences, Summarizing, and Clarifying
O	O		O	O	3	Predicting, Making Inferences, Finding Patterns, and Clarifying
				O	2	Only Clarifying
	O		O	O	1	Making Inferences, Finding Patterns, and Clarifying

Note.
Read the table horizontally (left to right). Refer to the following examples:

1. Two students used Predicting only while reading a text, which was shown with red flags only on the text.
2. Five students used Predicting and Summarizing while reading a text, which was shown with red flags and blue flags on the text.

To see how many students used each strategy, read the table vertically (from top to bottom). For example, Predicting was used for all except for the last two combinations. Because the last two combinations were used by 3 students, 35 students used Predicting.

Figure 18 shows the examples of using Predicting dominantly while reading the text, and Figure 19 presents the examples of using various reading strategies.

Figure 18. Examples of the Fourth Color-Coding Assessment (Mostly with Predicting)

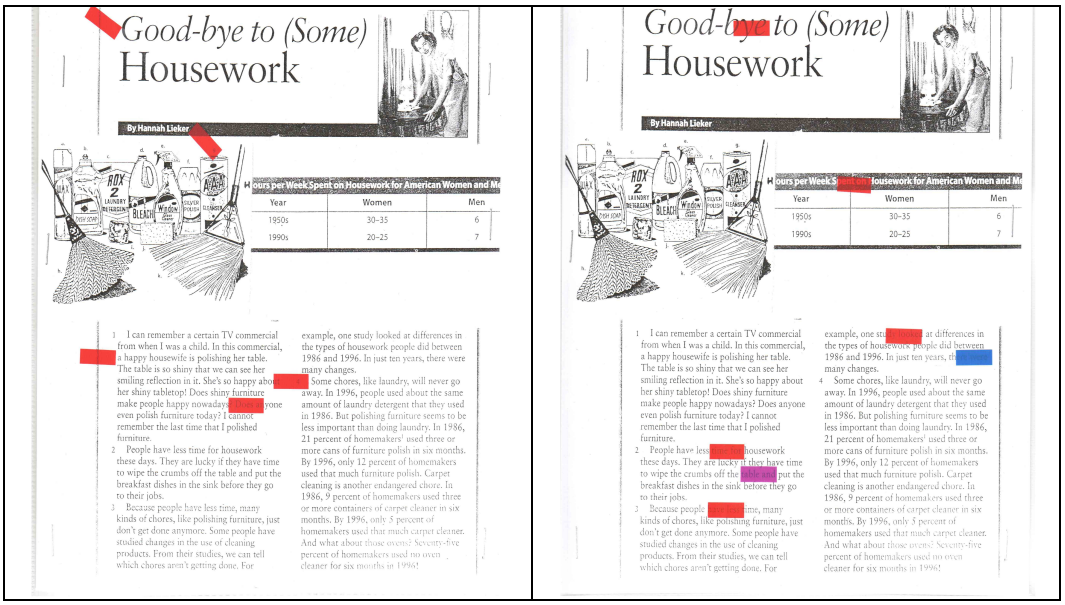
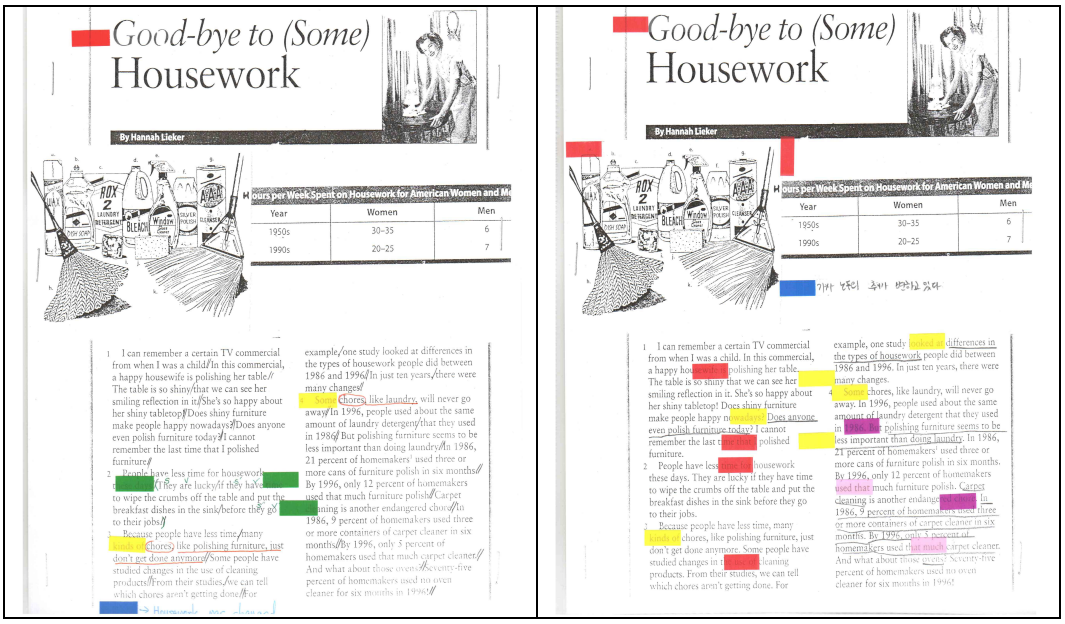


Figure 19. Examples of the Fourth Color-Coding Assessment (With Diverse Strategies)



Finally, after the participants learned all the six strategies, in the 14th week they were given a new text, *Engrish*. To control the participants' background knowledge, the current topic was chosen, and all the participants in both groups said that they had never heard of *Engrish*. Because it was the most difficult and long, they actively used more strategies to read and understand it. The color-coding assessment showed that the participants used various strategies more often than before.

As noted, the reading comprehension scores of the participants in the strategy instruction group improved significantly at the final test, compared with the midterm test. Out of 38 students, 30 students got higher scores for the final test than for the midterm test, and their color-coding showed their frequent strategy use while reading the text, like Student 1 (61 to 93.5) and Student 2 (59.5 to 91). In contrast, there were eight students who got lower scores for the final test than for the midterm test. All the eight students, including Student 3 (79 to 71) and Student 4 (85.5 to 76.5), did not use strategies often, as shown in their color-coding.

While the frequency of the students' text-specific reading strategy use (*I-STARS*) is presented in Table 30, the combination of reading strategies that the students used to read the English text is shown in Table 31. To see whether the results of the *I-STARS* showed the similar increase of text-specific strategy use at the post-test by the strategy instruction group, a dependent t-test was conducted by the 11 strategy categories. Based on the color-coding assessment, the students used more strategies more often while reading the text in the 14th week (post-test) than while reading the texts during the strategy instruction. Four students out of 38 students (13%) used all six strategies and only two students (5%) did not use any strategies at

all. The rest of the students used a different combination of reading strategies. The students had been told that they should evaluate the effectiveness of each strategy whenever they learned a new one, so it seemed that they used the strategies based on their personal evaluation, not only based on my teaching. In other words, even though I taught the six strategies with emphasizing the importance of the individual strategies, the students did not use all the strategies, but chose to use their preferred strategies.

Table 30

Frequency of Text-Specific Reading Strategy Use of the I-STARS at the Pre-Test and the Post-Test

	Strategy Instruction Group		Control Group	
Strategy	Pre-Test	Post-Test	Pre-Test	Post-Test
Predicting	.69	.84 (↑*)[1]	.69	.65 (↓)
Making Inferences	.65	.68 (↑*)	.68	.68 (=)
Summarizing	.23	.20 (↓)[2]	.17	.19 (↑)
Finding Patterns	.60	.76 (↑*)	.58	.69 (↑)
Clarifying	.48	.58 (↑*)	.43	.48 (↑)
Grouping	.46	.65 (↑*)	.53	.53 (=)

* p<.05

Note.

1. The strategy instruction group used the strategy of Predicting significantly more during the post-test than the pre-test.
2. The strategy instruction group used the strategy of Summarizing less often during the post-test than the pre-test.

As Table 30 shows, the strategy instruction group used all the reading strategies, except for Summarizing, significantly more often at the post-test than the pre-test, which is coherent to the results found from the color-coding assessment. In contrast, the control group's text-specific strategy use did not show much difference between the pre-test and the post-test. Interestingly, both groups answered in the *I-STARS* that they used Predicting quite often during the pre-test, which is not consistent with their negative responses in the first journal response to Predicting.

Table 31

Combination of Used Strategies Shown in the Color-Coding Assessment (14th Week)

Predict-ing (Red)	Making Inferences (Yellow)	Sum (Blue)	Finding Patterns (Green)	Clarifying (Orange)	Group-ing (Pink)	Students Using the Combination	Interpretation
O						4[1]	Only Predicting
O	O					6[2]	Predicting and Making Inferences
O			O			2	Predicting and Finding Patterns
O				O		1	Predicting and Clarifying
O			O	O		1	Predicting, Finding Patterns, and Clarifying
O	O		O			4	Predicting, Making Inferences, and Finding Patterns
O	O				O	1	Predicting, Making Inferences, and Grouping
O	O	O				2	Predicting, Making Inferences, Summarizing
O		O			O	1	Predicting, Summarizing, and Grouping
O	O		O	O		2	Predicting, Making Inferences, Finding Patterns, and Clarifying
O	O	O		O		2	Predicting, Making Inferences, Summarizing, and Clarifying
O	O	O	O			3	Predicting, Making Inferences, Summarizing, and Finding Patterns
O	O		O		O	2	Predicting, Making Inferences, Finding Patterns, and Grouping
O	O	O	O	O		1	All but Grouping
O	O	O	O	O	O	4	All Strategies
						2	No Strategies

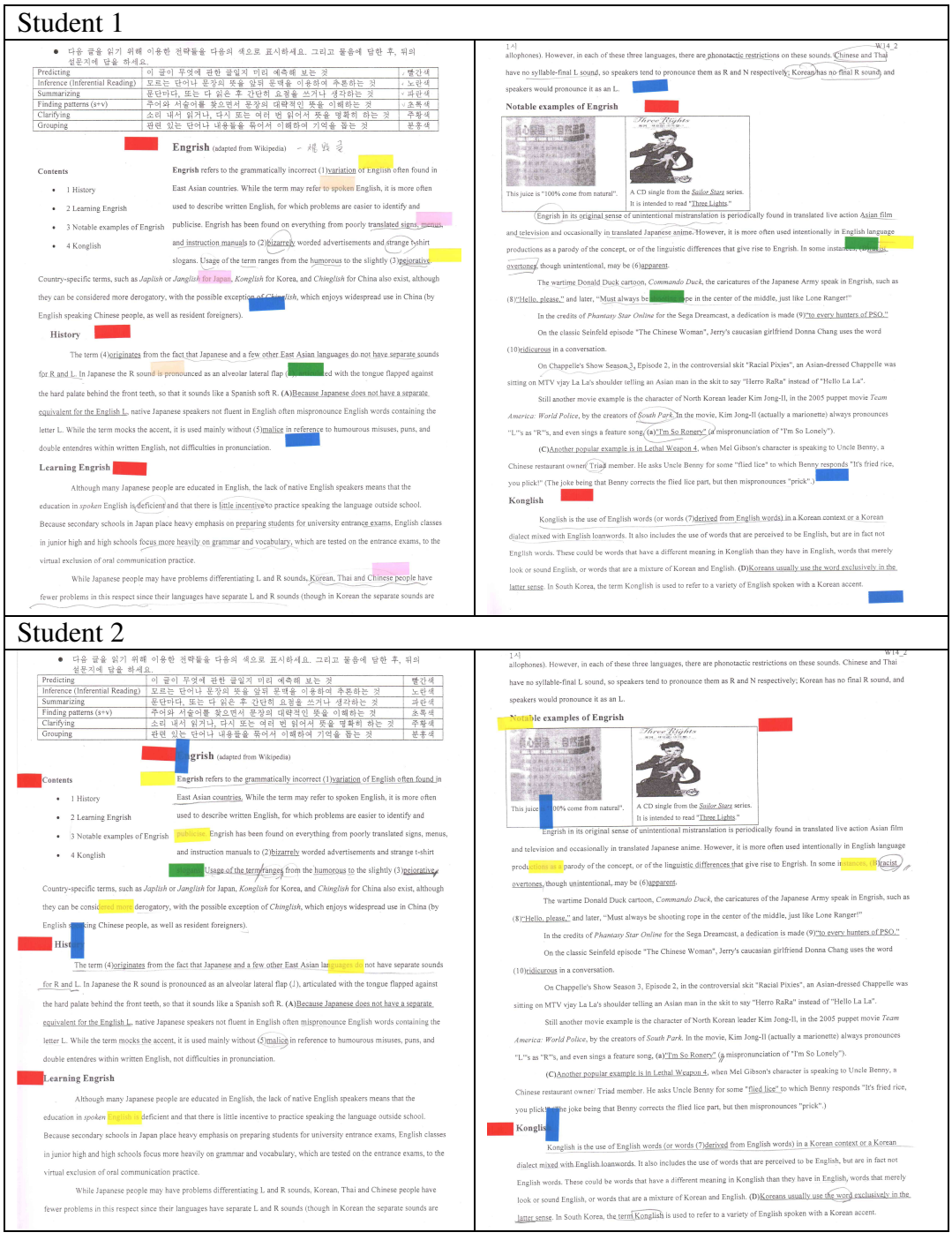
Note.
Read the table horizontally (left to right). Refer to the following examples:

1. Four students used Predicting only while reading a text, which was shown with red flags only on the text.
2. Six students used Predicting and Making Inferences while reading a text, which was shown with red flags and yellow flags on the text.

To see how many students used each strategy, read the table vertically (from top to bottom). For example, Predicting was used for all except for the very last row because the last row show that 2 students did not use any reading strategies. Therefore, all students, who used any combinations of reading strategies, used Predicting.

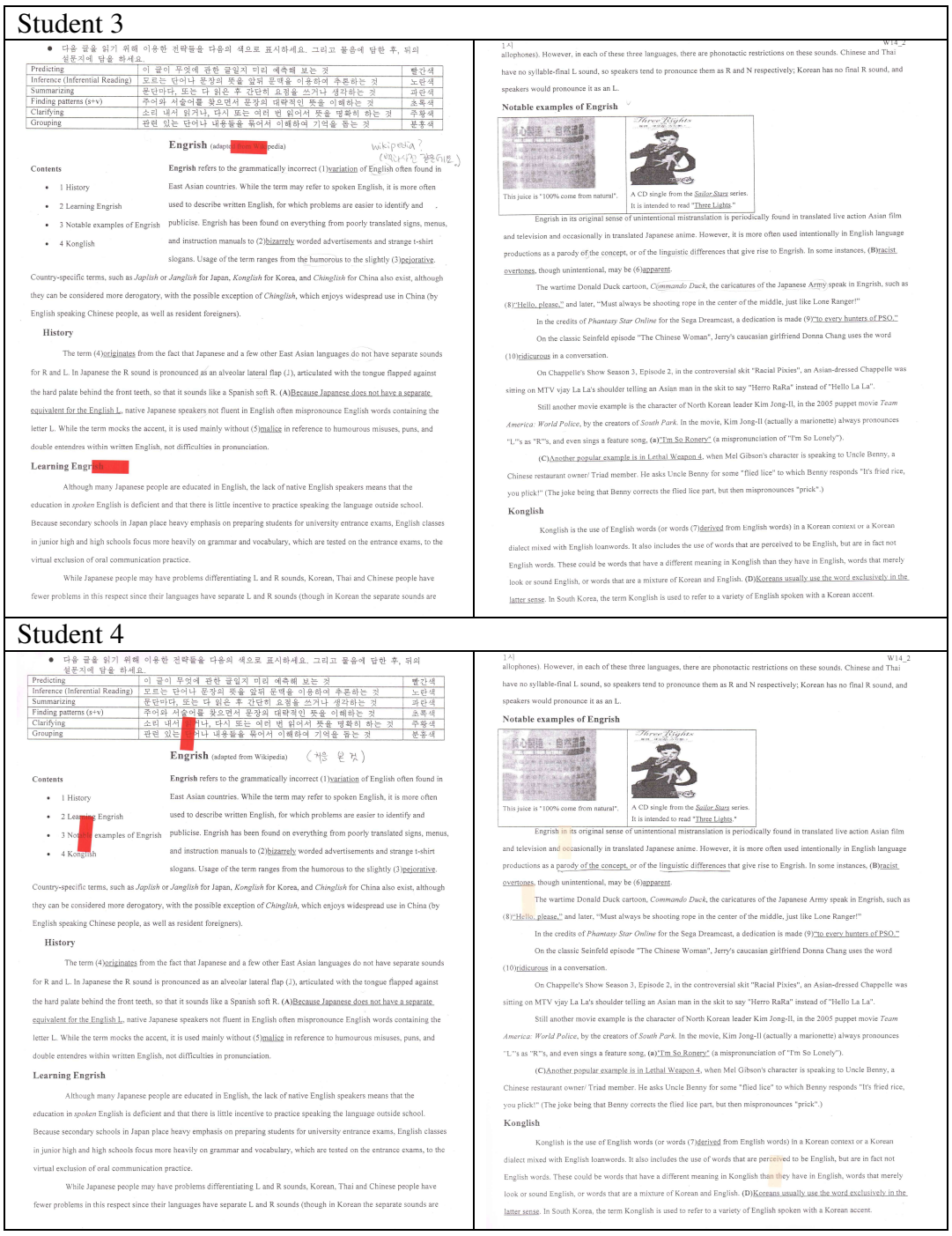
Figure 20 and Figure 21 shows the examples of frequent use and less frequent use while reading the text.

Figure 20. Examples of the Final Color-Coding Assessment (Frequent Use)



Note. This English text, *Engrish*, consists of two pages. Both pages show one student's consistent strategy use throughout the text.

Figure 21. Examples of the Final Color-Coding Assessment (Less Frequent Use)



Note. This English text, *Engrish*, consists of two pages. Both pages show one student's consistent strategy use throughout the text.

Think-aloud Protocols

In addition to color-coding that was produced by all the participants in the strategy instruction group, the participants in both groups were asked to meet with me to record their think-aloud protocols. Because this kind of individual meeting might motivate the students to study harder, I asked the participants in the control group to meet with me too. During the thinking-aloud sessions, I did not mention anything about reading strategies to any group.

Every Wednesday from the second week to the 11th week, a couple of students from both groups met with me privately to produce the think-aloud protocols. Twenty-five students from the strategy instruction group and 27 students from the control group produced think-aloud protocols while reading an unfamiliar text, *Quiz*. It took 20 to 30 minutes for each student. They read it to answer the reading comprehension questions.

I did a pilot study with Korean middle school students to discover whether Korean students could produce think-aloud protocols well because Koreans have not been educated to be as expressive as have students in other nations. The Korean middle school students who participated in the pilot study expressed what they had in mind while reading surprisingly well. Thus, I expected the participants in this study to do as well as the middle school students in the pilot study.

However, to my disappointment, they were too nervous in front of me. After reading aloud, all I heard was, "I don't know what the text was about," "I can't remember at all," "I am not this bad at home," and "I'm sorry. I can't do this." I was only able to see a very general tendency of using a dictionary in different grade levels,

not by different group (strategy instruction group and control group): the lower the students' grade level was (freshmen and sophomores), the more they looked up unknown words in a dictionary when encountering them.

Surprisingly, only one out of 52 volunteers (one in the strategy instruction group) produced fine think-aloud protocols. I met him in the ninth week. While reading, he said:

> Um… I don't know this word [chalking]. [looking at the dictionary] Well, oh! Let me see. '–ing' is usually put after verbs. [put a slash between chalk- and -ing] chalk? Uh? It is not a verb. It is a white pen teachers write on the board with, right? [looking at the dictionary again] Maybe, this word is related to an action of using chalk. I'm going to read this sentence again. 'He then hired a bunch of street urchins to go around Dublin chalking the nonsense word *quiz* on every wall' Ahha! Because 'on the wall,' I think it is the action of writing with a white pen.

It was obvious that he tried not to look up a dictionary while reading the entire text as seen in the example above; instead, he used contexts, reread the sentences, divided words or sentences to find grammatical patterns. Also, interestingly, after reading the text, he said, "I have never learned reading systematically like in this class before. I used to look up every new word while reading, but after taking this class, I'm trying to make inferences, instead."

Except for him, all the other volunteers were too nervous to read and understand the text with me. They said something like, "I have never had an interview like this during my university life." Even though I told them it was not an interview, (I told them that I wanted to understand them better), they considered it as an interview anyway, and they brought their own questions about "studying English well, getting a job, studying abroad, finding out their problems in reading, getting a good grade" and so on.

To summarize, in order to observe the participants' strategy use, think-aloud protocol analysis and color-coding assessment were used. While teaching them color-coding was effective in observing the participants' strategy use, tracking their think-aloud protocols was not. The color-coding assessment was employed for a crowded class to see to what extent the participants used the learned reading strategies. The participants in the strategy instruction group did not use the strategies often and did not color-code the strategies well at first. As their attitudes toward reading strategies changed to be positive and as they got used to color-coding, their color-coding effectively showed how often and where they used the reading strategies. Moreover, putting color tags while reading helped them concentrate on the strategies that they had learned more than ones that they might have used automatically without awareness. In this sense, color-coding assessment was a very effective way not only to help students focus on the specific strategies, but also to help teachers assess the students' use of the strategies quickly by skimming colors on the students' sheets during strategy instruction. This fast assessment allowed me to adjust the next lesson plan to help the students understand a strategy better.

Reading Comprehension Proficiency

The ultimate reason why I helped the participants promote their strategy use was that effectively using reading strategies will help them improve their reading comprehension proficiency. Reading strategies are tools to improve reading comprehension proficiency, not goals themselves. Therefore, in accordance with the change in the participants' strategy use, the change in their reading comprehension proficiency was also examined.

The reading comprehension proficiency was compared between the strategy instruction group and the control group in terms of the participants' reading comprehension test scores and their self-ratings of English reading proficiency. The importance of self-rated English proficiency on students' strategy use was discovered in my pilot test, which was done with more than 1,000 Korean EFL students.

Results for Research Question 6: Reading Comprehension Scores

Research question 6 was: Does reading strategy instruction relate to students' reading comprehension scores? In other words, are there any significant differences in pre- and post- reading comprehension scores between the strategy instruction group and the control group?

In order to discover whether the strategy instruction influenced the participants' reading comprehension more than the traditional reading class, a split-plot ANOVA was conducted with one repeated measure ("time": pre-test, midterm test, and final test) and one non-repeated measure ("group": strategy instruction group and control group). Table 32 summarizes the profile of the students' reading comprehension test scores.

Table 32

Profile of Reading Comprehension Scores (Out of a Possible 100)

Group	Pre-test Mean (SD)	Midterm Test Mean (SD)	Final Test Mean (SD)
Strategy Instruction (n=38)	57.11 (5.44)	74.96 (13.20)	81.20 (10.07)
Control (n=34)	56.62 (3.98)	76.12 (8.79)	74.28 (9.22)

The three reading comprehension tests consisted of understanding vocabulary and understanding between the lines (see Appendices 5, 6, and 7). It was interesting that the control group improved more than the strategy instruction group at the midterm test, compared with the pre-test. However, after the midterm test, the strategy instruction group showed remarkable improvement at the final test, but the control group's scores of the final test decreased rather than increased, though slightly.

The split-plot ANOVA showed a significant main effect of "time" (see Table 33). The significant main effect of "time" means that all the participants, regardless of being in the strategy instruction group or in the control group, showed higher reading comprehension scores at the end of the semester, compared to at the beginning of the semester, because the pre-test scores were the lowest of all. To discover which, among the three tests (pre-test, midterm test and final test), showed significant improvement, follow-up comparisons were conducted.

Table 33

Tests of Within-Subjects Effects

Source	Type III SS	df	MS	F	Sig.
Time	18890.41	2	9445.21	175.82	.000
Time * Group	653.55	2	326.77	6.08	.003
Error (Time)	7521.16	140	53.72		

To find whether there was significant improvement at the three test times within the strategy instruction group and the control group, six pairs were compared: (a) the pre-test with the midterm, (b) the midterm with the final, (c) the final with the pre-test of the strategy instruction group, and (d) the pre-test with the midterm, (e) the midterm with the final, (f) the final with the pre-test of the control group. Accordingly,

the alpha value was adjusted to .008 (.05/6). The comparison of the pairs showed very interesting results (see Table 34). Except for the pair of the midterm and the final of the control group, all the other pairs showed very significant differences ($p<.008$). In other words, the control group as well as the strategy instruction group improved significantly at the midterm test compared to the pre-test, and at the final test compared to the pre-test. However, only the strategy instruction group showed significant improvement at the final test compared to the midterm test.

Table 34

Simple Effects of the Time (Reading Comprehension Scores within Each Group)

Group		Mean	SD	t	df	Sig.
Strategy Instruction	Midterm – Pre-test	17.86	12.37	8.90	37	.000
	Final – Midterm	6.24	10.25	3.75	37	.001
	Final – Pre-test	24.09	10.16	14.61	37	.000
Control	Midterm – Pre-test	19.50	9.36	12.15	33	.000
	Final – Midterm	-1.84	11.00	.974	33	.337
	Final – Pre-test	17.66	8.37	12.31	33	.000

Table 35

Tests of Between-Subjects Effects

Source	Type III SS	df	MS	F	Sig.
Intercept	1056529.91	1	1056529.91	7666.30	.000
Group	233.54	1	233.54	1.70	.197
Error	9647.04	70	137.82		

Regarding the group differences, as seen in the Table 35, there was not a significant main effect for the "group" variable, which means that the strategy instruction group did not perform better than the control group consistently throughout the semester. However, a significant interaction effect was observed between "time" and "group" (see Table 33), which means that the strategy instruction group performed better than the control group at least at one test, not all three tests. To find out when the strategy instruction group had higher comprehension scores than the control group, follow-up comparisons were conducted.

In order to see whether there were significant simple effects between the strategy instruction group and the control group at each test time, an independent t-test for three pairs was conducted with the adjusted alpha value (.017 = .05/3): (a) the strategy instruction group and the control group of the pre-test; (b) the strategy instruction group and the control group of the midterm test; and (c) the strategy instruction group and the control group of the final test.

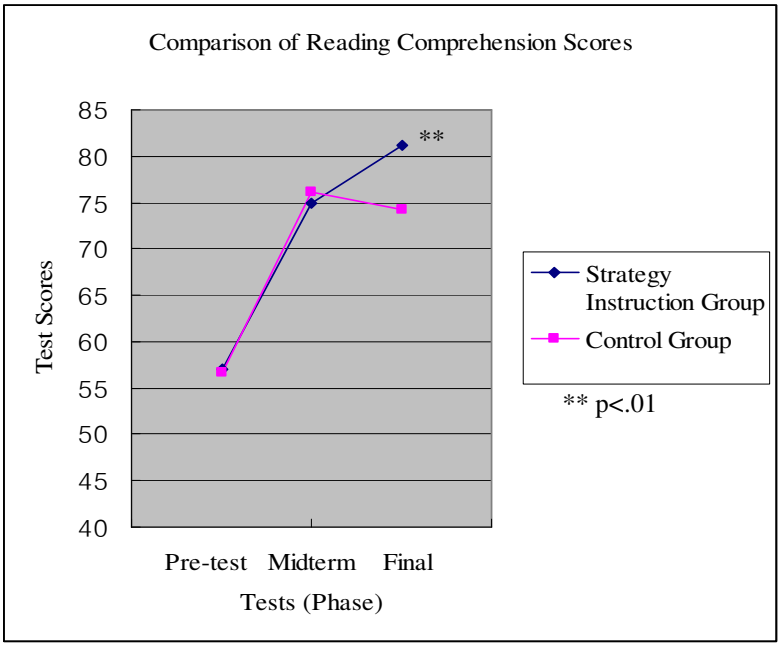
Table 36

Simple Effects of the Group (Reading Comprehension Scores within Each Test)

Group		Mean	SD	t	df	Sig.
Pre-test	Strategy Instruction	57.11	5.44	.43	70	.669
	Control	56.62	3.98			
Midterm Test	Strategy Instruction	74.96	13.20	-.43	70	.667
	Control	76.12	8.79			
Final Test	Strategy Instruction	81.20	10.07	3.03	70	.003
	Control	74.28	9.22			

As seen in Table 36, the reading proficiency of the strategy instruction group and the control group were very similar to each other at the pre-test and the midterm, but at the final test the strategy instruction group improved much more than the control group ($p<.017$). Figure 22 shows these results more clearly.

Figure 22. Means of the Reading Comprehension Scores before and after the Intervention



Note. The reading comprehension scores of both groups were not significantly different at the pre-test and the midterm test. Before the midterm test, the strategy instruction group learned only two strategies (Predicting and Making Inferences) and they were struggling with the strategies. After the midterm, they learned and practiced reading strategies comprehensively, and at the final test, the strategy instruction group improved significantly more than the control group ($p<.01$).

To summarize, the participants' reading comprehension scores improved compared to the beginning of the semester regardless of the instruction types; in other words, not only the participants in the strategy instruction group, but also those in the control group, improved at the end of the semester. However, when looking into the differences more thoroughly, the strategy instruction promoted text-specific reading strategy use, which eventually helped the participants in the strategy instruction group improve significantly more at the final test than those in the control group, whose scores decreased at the final test.

Results for Research Question 7: Self-Rated English Reading Proficiency

Research question 7 was: How does reading strategy instruction change students' self-rated English reading proficiency? My pilot study with more than 1,000 Korean EFL students showed that Korean students' self-rated English proficiency was one of the best predictors of strategy use. Thus, in addition to the reading comprehension scores, this study also examined the participants' self-rated English reading proficiency.

In the second week, the participants were asked to rate their own English reading proficiency and why they thought so. Like the reading comprehension pre-test scores, the two groups did not show big differences in their self-ratings at the beginning of the semester. Out of 38 participants in the strategy group, 7 (18%) rated their reading proficiency to be good, 25 (66%), to be fair, and 6 (16%), to be poor. Out of 34 students in the control group, 4 (12%) rated their reading proficiency to be good, 26 (76%), to be fair, and 4 (12%), to be poor. Interestingly, no one considered their English proficiency to be very good or excellent (see Table 38).

As seen in Table 37, most participants who rated their reading proficiency good wanted to read in detail and to read faster than before. Many of those who rated their English reading proficiency as being fair considered that their vocabulary and grammar were limited. Both thought that their English reading proficiency will improve as long as they study harder; in other words, they did not blame their own ability for their low proficiency. However, the participants who rated their English reading proficiency as being poor tended to blame themselves. They considered their limited ability or lost interest in English to cause their low reading proficiency.

Table 37

Self-Rated English Reading Proficiency at the Beginning (Second Week)

Rating	Strategy Instruction Group	Control Group
Excellent	None	None
Very Good	None	None
Good	7 students ♦ I can read English texts without much difficulty unless they are field specific articles, so I rated my English reading proficiency good. ♦ I can translate fast. ♦ In terms of reading, I have learned it since I entered my middle school and my Korean reading proficiency is okay, so my English reading is good. But I have to improve vocabulary and read faster. ♦ I can understand most of English sentences in my books. ♦ Because I studied abroad for a couple of years, I guess. ♦ Although I need a dictionary to read something, I know how to read English, so I checked "Good." If I know all of word, I'll check "Excellent". ♦ I like English very much, so I made great efforts to learn English. But I still have to learn more.	4 students ♦ I read English textbooks a lot, but my English reading is not perfect. ♦ I can read and understand English newspaper and textbooks. ♦ I have been studying English reading quite steadily, so it is not that bad. ♦ Even though I don't know many words, I can understand generally, but my TOIEC reading score is not high because of lack of time.

Rating	Strategy Instruction Group	Control Group
Fair	25 students ♦ I read slowly and sometimes feel difficult to understand some parts. ♦ I don't know many words. ♦ I had difficulties in using words and understanding grammar. ♦ I can't translate easily and have many unknown words. ♦ I can understand the context roughly. ♦ I can't read English like I read in Korean. ♦ I have never thought my English proficiency to be good. ♦ While commuting for school, I try to read newspaper named Korea Times in English. I usually understand the context, but don't figure out the exact content in Korean. ♦ There are still many things for me to study. ♦ After the entrance examination, I haven't studied English.	26 students ♦ Thanks to my grammar knowledge I learned until high school, I can translate roughly, but when there are many unknown words, I just give up. ♦ For a long time, I didn't study in English, but I can be better if I keep studying. ♦ I haven't practiced English reading so much as English grammar or listening. ♦ I can't grasp main idea accurately and fast. ♦ I don't know many words. ♦ When I concentrate on grammatical aspects in a sentence, I am lost. ♦ My reading is good only for the TOEIC or other tests. ♦ I always like English reading. ♦ I understand a text in general, but in detail. ♦ I can't read English newspaper or articles well. ♦ I haven't studied English after I entered this university.
Poor	6 students ♦ I have difficulties in reading in Korean too. My TOEIC reading score is about 400. ♦ Because I can't read newspaper or novel in English, and don't know much of English grammar. ♦ I can understand 90% of Korean texts, but only 50% of English texts. ♦ My English reading scores were lower than other skills even in my high school.	4 students ♦ I lost interest after graduating from my high school. ♦ I can't understand what each English sentence says even though I can read it. ♦ I can't grasp the main idea even though I can translate many sentences. ♦ I'm poor at English.

In the 14th week, the participants in both groups were asked the same question regarding their self-rated English reading proficiency. Because they reflected on their reading proficiency in the previous week as writing homework, their ratings were based on their experiences of this semester. Compared to the participants in the control group, those in the strategy instruction group gained much self-confidence in their English reading proficiency, as also observed in their writings. Table 38 compares the students' self-ratings before and after the intervention. Considering that there was no one that rated their proficiency very good or excellent in the second week, there was a remarkable increase: 17 out of 38 students (45%) considered their English reading to be very good and 1, excellent. In contrast, only 1 out of 34 students (3%) in the control group rated their reading proficiency to be very good and 1, excellent. The participants in the strategy instruction gained self-confidence much more so than those in the control group; only 5 students (13%) rated their English reading proficiency to be fair or poor, which had been 31 students (82%) in the second week.

Table 38

Profile of Self-Rated English Reading Proficiency

Rating	Strategy Instruction Group		Control Group	
	Second Week	14th Week	Second Week	14th Week
Excellent	0	1 (3%)	0	1 (3%)
Very Good	0	17 (45%)	0	1 (3%)
Good	7 (18%)	15 (39%)	4 (12%)	17 (50%)
Fair	25 (66%)	4 (10%)	26 (76%)	14 (41%)
Poor	6 (16%)	1 (3%)	4 (12%)	1 (3%)
Total	38	38	34	34

As noted before, I asked the participants to write in English about whether they thought their English reading proficiency improved, compared with the first week of the class and about what made them improve or not improve. Compared to the second week, it was obvious that they felt that their reading proficiency improved by the end of the semester. In addition, the participants' reasons given in the second week were based on their general English reading experiences, but those given in the 13th week showed they had reflected on what they had learned in the class of this study.

Table 39

Comparison of Self-Rated English Reading Proficiency between Before and After the Intervention

	Strategy Instruction Group			Control Group		
	Number of Students	Sub-total	Total	Number of Students	Sub-total	Total
Same as Before			5			17
Poor to Poor	1			1		
Fair to Fair	3	5		12	17	
Good to Good	1			4		
Higher than Before			33			17
Poor to Fair	1			2		
Poor to Good	3	5		1	3	
Poor to Very Good	1			-		
Fair to Good	11			12		
Fair to Very Good	11	22		1	13	
Fair to Excellent	-			1		
Good to Very Good	5	6		-	1	
Good to Excellent	1			-		

After reflecting, when asked to rate their own reading proficiency again in the 14th week, as seen in Table 39, the majority of the strategy instruction group (33 students, 87%) felt that their reading proficiency improved compared to the first class; moreover, 19 out of the 33 students explicitly pointed out the reading strategies

they had learned were very helpful. They clearly mentioned how the reading strategies helped them read better and become more confident than before.

In contrast, only half of the control group (17 students, 50%) rated their reading proficiency higher than before. Because I taught the control group in a traditional way, they felt that their reading proficiency improved because of increased repertoire of vocabulary and grammar practices. No one in either group considered their reading proficiency to get lower than before.

Table 40 shows the reasons why they thought their reading proficiency improved higher than before the intervention.

Table 40

Reasons Given by the Participants Who Thought Their Reading Proficiency Improved

	Strategy Instruction Group	Control Group
Poor to Fair	♦ It is the reading strategy.	♦ Like I said, the vocabulary. ♦ I gained many vocabularies. That make easy to read a paragraph.
Poor to Good	♦ I think my English reading proficiency has improved, because I learned about strategies of reading.	♦ Memorizing words and reading articles made me think so. Because I know many words, compared to the last semester, I think I can interpret English texts well.
Poor to Very Good	♦ I did not know strategies of reading. However, I improved invaluable proficiency about reading in this semester. I found strategies difficult at first but I made constant efforts during the semester. After all, I believe strategies are kernel of English reading. Moreover, I gain confidence in reading because I feel satisfied.	

	Strategy Instruction Group	Control Group
Fair to Good	♦ My reading time has been reduced. So I think my reading proficiency has improved. I think may be, understanding ability has been improved. When I read articles, I translated all sentences from top to bottom so it took a long time, but now I don't have to translate all sentences because I can understand without translating. ♦ I learned about various reading skills. Especially, Making Inferences helped me understand and improve reading ability. ♦ My weakest point in English was vocabulary. By the way, I could have confidence in reading after I learned how to make inferences of the meaning of new words during this class. ♦ Making Inferences and Predicting improve my concentration. These are interesting to me because they let me understand without reading them in detail, using what I know. ♦ Predicting, sentence structure [Finding Patterns] and so on directly affected my reading speed. ♦ Predicting and reading strategies have helped me improve. ♦ Predicting strategy has been good for me.	♦ I study English two hours a week. I think regularity is the most important thing to improve English reading. ♦ In this class, I practiced the way to search the main subject of each paragraph. I could understand contents rapidly. It was useful. ♦ My reading speed is faster than before. And understanding of a paragraph has improved by finding topic sentences. ♦ I think that finding a verb makes me proficient in reading English. Firstly, if once I find a verb, I can understand a sentence more easily. ♦ There are two things that improved my English reading proficiency. First, I got more vocabulary. Second, I read more articles. After all, my reading speed and vocabulary are better than before. ♦ You gave me quite diverse reading materials. These were useful for understanding real English. I want more and more. ♦ Because I studied grammar and enriched my vocabulary. ♦ Grammar and vocabulary ♦ I have watched American dramas. My vocabulary ability has gotten better. ♦ There was no time that I study English after graduating high school. I study in this class for twelve weeks, and I study English at least one more time in a week. So, I think that my reading proficiency is better than twelve weeks ago. ♦ There were many words, idioms, and grammars. I read those over again, so I became to read naturally. ♦ Summarizing a paragraph into a single sentence.

	Strategy Instruction Group	Control Group
Fair to Very Good	♦ My reading speed got faster and more accurate. Previously, because I looked at a sentence in terms of grammar and the structure, I didn't grasp the flow of the sentence and the overall picture. But now, I can translate a sentence smoothly in my head, and I don't have to take time to try to understand the overall flow of the sentences. ♦ Your class helped me recognize my reading skills that I've been using unconsciously. ♦ Because during this class, I have learned English reading skills systematically. These skills help me read English sentences easily. ♦ Many reading skills help me. Among them, Grouping is the best reading skill.	♦ English reading class contributes positively to my overall English ability in various ways. Different lessons in the weeks develop my English reading. To find main idea in text, summarize the English text, review grammar, take word test, and write the essay allow my English ability to improve.
Fair to Excellent		♦ As I mentioned, the reason is vocabulary. Most of people have difficulty to read the paragraph because of their lack of vocabulary.
Good to Very Good	♦ Before starting this semester, I couldn't understand some articles with difficult words, but I can use the context now. ♦ I didn't know reading strategies before you taught. Almost all strategies are useful. Especially the inference strategy was good, because the strategy makes me read a book without a dictionary.	
Good to Excellent	♦ I used to read English without making inferences, predictions and summary before. I learned Making Inferences, Predicting, and Summarizing in this class. As a result, my English reading speed and comprehension have improved, compared with the first week of the class.	

To summarize, before the intervention, the participants in both groups rated their reading proficiency to be very low. The strategy instruction promoted the participants' self-ratings much higher than before, and they considered their improvement caused by the reading strategies. The students in the control group also rated their reading proficiency higher than before, but not as high as those in the strategy instruction group. The students in the control group considered that their improvement was caused by the increased vocabulary and grammar.

Relationship between English and Korean Reading Strategy Use

Even though I did not teach or mention how the English reading strategies were possibly used to read Korean texts, I expected to see some change in the participants' strategy use while reading in Korean too. I believed that the same metacognition concerns reading both in Korean and reading in English. Therefore, once the participants became conscious of certain reading strategies after the strategy instruction, I expected the participants to use the strategies when reading in Korean too, or at least to be aware of the strategies even without using them. To discover whether my assumption was correct, the participants' strategy use while reading in English was compared to the same while reading in Korean. Their color-coding and narrative comments were also analyzed.

Results for Research Question 8: Strategy Wash-back Effects

Research question 8 was: Are students' English reading strategies transferred to their Korean reading strategies?

Regarding this question, I expected to observe that the participants in the strategy instruction group to use English reading strategies more frequently than those

in the control group, and accordingly, to use Korean reading strategies more often than those in the control group. In other words, I assumed that the participants' English reading strategies would be transferred to their Korean reading strategies after the strategy instruction.

Strategy Use in the I-STARS

In order to examine the relationship between the participants' English reading strategy use and Korean reading strategy use, a 2X2X2 split-plot ANOVA was conducted with two repeated measures ("time": pre-test and post-test; and "language": English and Korean) and one non-repeated measure ("group": strategy instruction group and control group). Because only text-specific reading strategy use of the strategy instruction group was significantly increased at the post-test (Research Question 3), the students' Korean text-specific reading strategy use, not general reading strategy use, was compared to their English text-specific reading strategy use.

Table 41

Test of Within-Subjects Effects

Source	Type III SS	df	MS	F	Sig.
Time	.24	1	.24	12.75	.001
Time * Group	.03	1	.03	1.84	.179
Error (Time)	1.22	65	1.88		
Language	.05	1	.05	3.94	.051
Language * Group	.00	1	.00	.03	.862
Error (Language)	.89	65	.01		
Time * Language	.02	1	.02	1.44	.235
Time * Language * Group	.01	1	.01	.37	.544
Error (Time * Language)	1.00	65	1.54		

As seen in Table 41, only "time" showed a significant main effect ($p<.01$). The other measures showed neither significant main effects nor interaction effects. It

means that the students were using the reading strategies to the same extent in both languages, though marginally more so in English, compared to Korean. Use of the strategies, in general, significantly increased at the post-test.

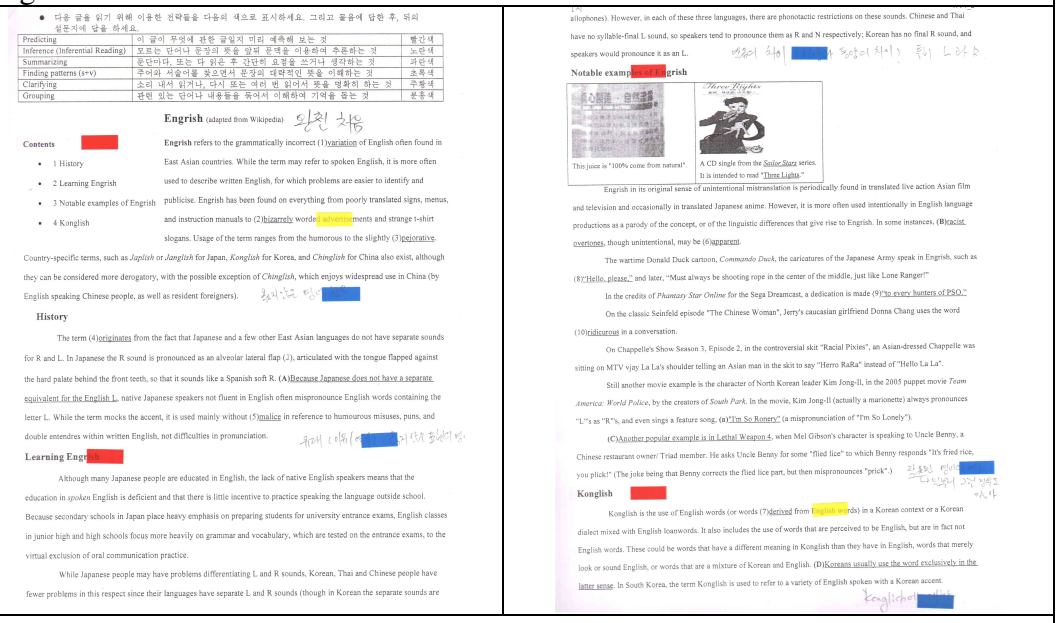
Strategy Use in the Color-Coding Assessment

After the participants learned all six strategies, they were given a quite long English text and a Korean text and asked to color-code while reading them in the 14th week. The color-coding assessment showed that the participants used the learned reading strategies while reading in Korean as well as while reading in English even though the frequency was different (less often while reading in Korean than while reading in English). As an example, the color-coding of two students was compared between English and Korean. As seen below, the two students used similar strategies to read both the English and the Korean texts. The first student made predictions using the title and the subtitles before reading (red), made inferences of new words while reading (yellow), and summarized each paragraph (blue). The second student made predictions (red) and made inferences (yellow) too, but did not summarize like the first student. In other words, the participants' color-coding showed that the learned English reading strategies were transferred to their Korean reading strategies.

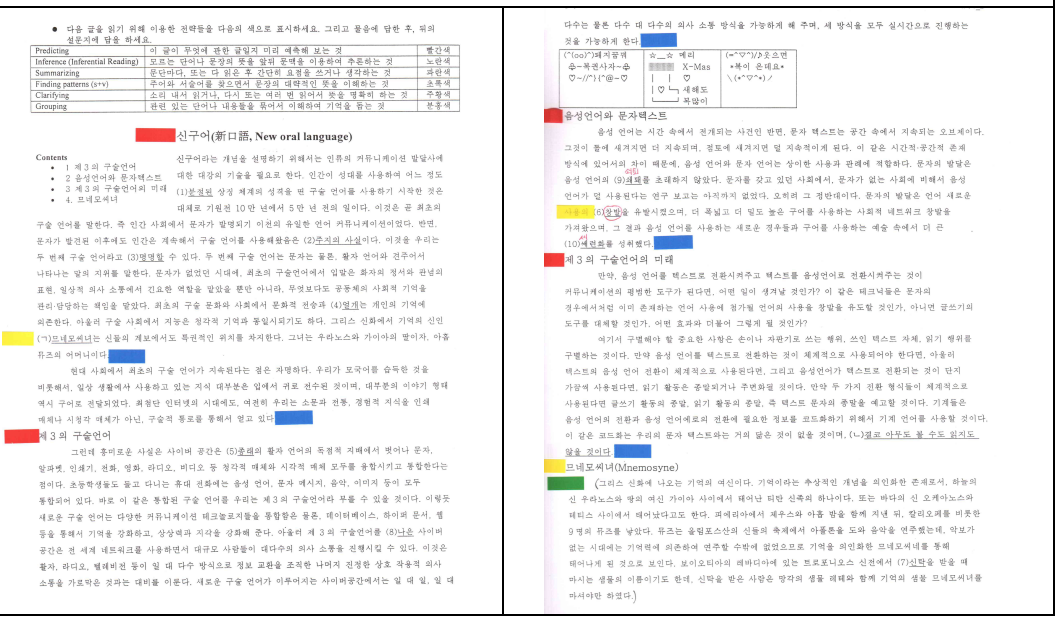
The same types of strategy use parallels (English strategy transfer to Korean, or strategy wash-back effect) were found multiple times with students in the strategy instruction group (16 students, 50%). Interestingly, there were more students who used Predicting and Clarifying while reading the Korean text than while reading the English text even though the frequency of strategy use throughout the Korean text was lower than that throughout the English text.

Figure 23. Examples of the Final Color-Coding Assessment (Student 5)

English text



Korean text

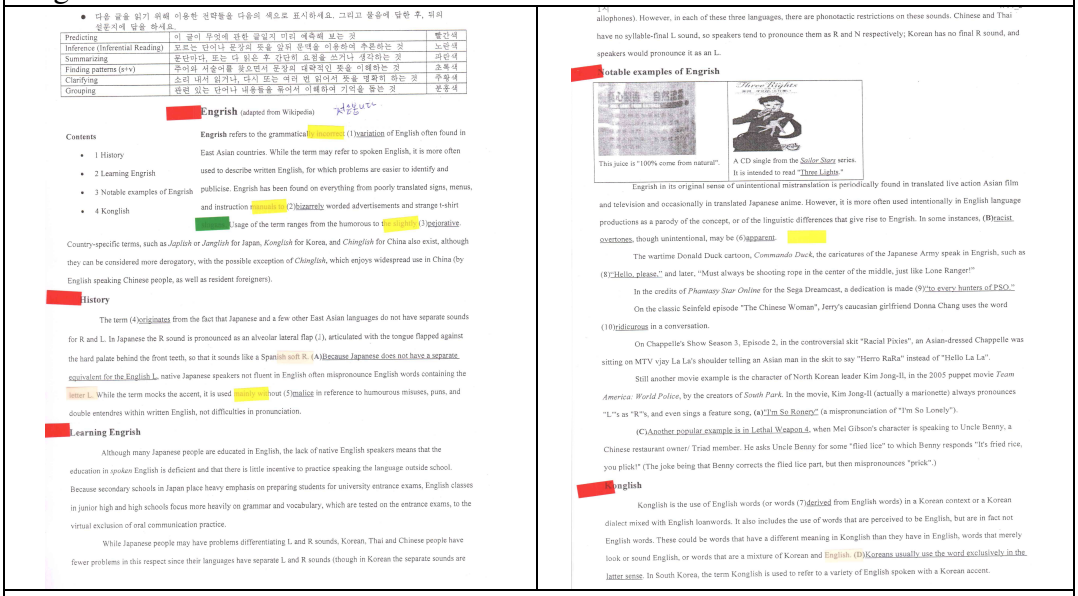


Note. These examples were presented to compare one specific student's strategy use while reading an English text to while reading a Korean text. The types of reading strategies that he used were very similar.

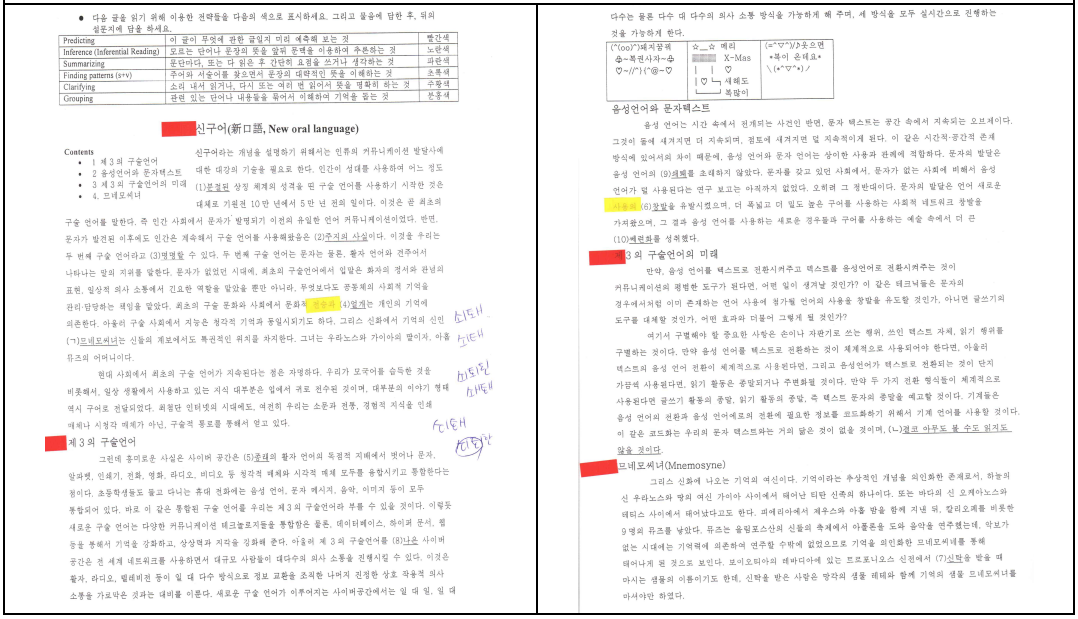
Figure 23 and Figure 24 show how similarly the students used reading strategies while reading the English text and the Korean text. The color tags visually showed what types of reading strategies each student used and how often.

Figure 24. Examples of the Final Color-Coding Assessment (Student 6)

English text



Korean text



Note. These examples were presented to compare another specific student's strategy use while reading an English text to while reading a Korean text. The types of reading strategies that she used were very similar, but she used them less often while reading the Korean text.

To summarize, the ANOVA results and the color-coding assessment showed that the participants transferred their English reading strategies to Korean reading strategies. Even though they did not employ reading strategies while reading in Korean as often as while reading in English[8], the variances of reading strategy use between reading in English and reading in Korean turned out to be similar (16 students, 50%).

Results for Research Question 9: Awareness of the Transfer

In order to discover any possible strategy instruction wash-back effect (a second language to a first language) of reading strategies from reading in English to reading in Korean, I had research question 9: How does reading strategy instruction change students' Korean strategy use?

When the participants took the *I-STARS* after reading both English and Korean texts in the 14th week, I asked them a couple of open-ended questions. One of the questions in relation to English reading strategies was, "Please write down what behavior(s) you didn't do for reading in English before but started doing after this class. Why do you think you started doing the behavior(s)?" In relation to this question, I also asked about Korean reading strategies, "Please write down what behavior(s) you didn't do while reading in Korean before but started doing after this class. Why do you think you started doing the behavior(s)?"

Regarding the change in English reading strategies, in the strategy instruction group, all except for three students said that they started predicting (22 students), making inferences (7), finding patterns (3), grouping (3), clarifying (2), and

[8] The students used English reading strategies marginally more often than Korean reading strategies (p=.51 in Table 41).

summarizing (2) after taking this class. Considering the resistance against Predicting when they first learned it (they said that making predictions before reading is of no use and waste of time), this result was surprising; moreover, they said:

> "I experienced its [Predicting] effectiveness while reading."
> "I think making predictions about a text before reading helped me understand easily."
> "I hated Predicting, but after practicing several times, I found it very helpful."
> "I think Predicting became one of my reading habits because of repetitive practices during class."
> "I considered Predicting a wrong way, but I got confident using it."
> "I wasn't aware that I made predictions before reading, but through this class, I learned how to do it systematically."

Interestingly, one student said, "Nothing. It is hard to change how to read because it is my reading habit. I have no willingness to change either." Therefore, I looked into this student's data carefully. Even though he got better reading comprehension scores than the pre-test (50 to 68 to 73.5), his improvement was always below average (mean scores: pretest=57.11, midterm=74.96; final=81.20). His self-rated English proficiency did not change throughout the semester; he consistently considered his reading proficiency to be fair. He did not consider reading English so important as others, and did not enjoy reading at all. More interesting was that his strategy use (by the *I-STARS*) decreased at the post-test, which means that he did not use general reading strategies (3.25 to 1.98) and while reading the given text (.39 to .36) as he explicitly wrote in the open-ended question.

Regarding the change in Korean reading strategies, in the strategy instruction group, 12 students wrote that nothing changed in reading in Korean, while 25 students noticed a change employing the strategies while reading in Korean. Twelve students started making predictions before reading in Korean, nine made inferences,

two used Clarifying, one summarized, and one used Grouping. This result also conformed to the results by the *I-STARS*. The student, described just before, also wrote, "Nothing changed. I don't feel any need to change my Korean reading habits. My Korean reading proficiency is higher than others." His Korean general reading strategy use also decreased like English general reading strategy use (2.93 to 1.79), but interestingly, as he showed high self-confidence in Korean reading, his Korean text-specific reading strategy use increased a lot (.10 to .65) even though he wrote nothing had changed.

In contrast, because the participants in the control group did not learn reading strategies explicitly as in the strategy instruction group, they did not mention reading strategies clearly when they talked about their change in reading in English. Six students wrote that nothing changed throughout this semester. Among those who wrote that their reading changed, six students started focusing on grammar and three started summarizing while and/or after reading. Regarding these two strategies, Finding Patterns and Summarizing, I taught them to the control group without calling them as strategies because these have been main activities in traditional reading classes too. Moreover, five students tried to find topic sentences and the author's intention. No matter what the reason was, it seemed obvious that the students were influenced much by my instruction.

Ten students in the control group said that their Korean reading did not change at all. For the 13 students who started concentrating on grammatical patterns, summarizing, and finding the main idea of a text while reading in English, they

realized that they started doing similar behaviors while reading in Korean, without realizing they were using reading strategies.

Lastly, the participants were asked, "What was (were) the item(s) that you do most differently between while reading in English and while reading in Korean? Why do you think so?" The big difference was found when they were using the strategy of Making Inferences between reading in two languages. When they were asked separately about reading in English and in Korean, they thought that making inferences of unknown English words was very helpful. However, when they were asked to compare English reading and Korean reading, they felt making inferences of English words was more difficult than making inferences of Korean words. In other words, when they were asked to compare, they were more conscious of the level of their reading proficiency. Most of the participants in the strategy instruction group said that they concentrated on grammatical components and patterns of each sentence when reading in English because they were not confident then. In contrast, while reading in Korean, they had more self-confidence that they could understand everything and that they could figure out unknown Korean words very easily. In other words, when the participants were confident in their reading, they tended to read globally, trying to figure out the main idea of the entire text, but when they were not confident, they tended to read locally, focusing on sentence by sentence.

To summarize, the strategy instruction helped the participants realize that learning had occurred that was not only applicable to reading in English but also to reading in Korean. In other words, they realized that they were using the English reading strategies while reading a Korean text even though they did not learn to do so

because they benefited from the strategies while reading an English text. In addition, comparing reading in English with reading in Korean, similar responses were given by both groups. When they were more confident in reading (especially in vocabulary), they tended to concentrate on the main idea, while when they were less confident in reading, they tended to focus on grammatical details. Both were more confident in reading in Korean than in English, which explained the reason why they comprehended the Korean text better than the English text.

Summary of This Chapter

This chapter presented the results of the current study by each theme, which was covered by one or more research questions. The major findings are summarized in the following table.

Table 42

Summary of the Results

Purposes	Research Questions	Results
Main Purpose 1		
To examine the effect of reading strategy instruction on reading strategy use	RQ 1: About knowledge of reading strategies	As a result of strategy instruction, the participants built clear, comprehensive ideas about reading strategies, while the students in the control group did not (general, vague, or partial).
	RQ 2: About general reading strategy use	The participants' general strategy use did not change. The results of the *I-STARS* after the intervention were almost identical to those before.
	RQ 3: About text-specific reading strategy use	The participants' text-specific strategy use changed significantly. As a result of strategy instruction, they used more strategies while reading a text than before (than the control group).
	RQ 4: About attitudes toward reading strategies	The participants' attitudes toward reading strategies (toward the first strategy, Predicting, in particular) were very negative and many refused to use it. After experiencing the effectiveness of reading strategies and gaining self-confidence in using them (through the familiar activities), their attitudes changed dramatically.

Purposes	Research Questions	Results
Main Purpose 1 (Continued)	RQ 5: About assessing text-specific strategy use and color-coding assessment	Think-aloud protocols did not provide useful information about the students' reading strategy use, but color-coding assessment was very effective to identify their strategy use very effectively and efficiently.
Main Purpose 2		
To examine the effect of reading strategy instruction on reading comprehension	RQ 6: About reading comprehension scores	The reading comprehension scores of the strategy instruction group improved significantly more than the control group from the midterm test to the final test because the strategy instruction group learned and practiced the reading strategies intensively after the midterm.
	RQ 7: About self-ratings of English reading proficiency	Both groups rated their English reading proficiency higher after the intervention than before, but the self-ratings of the strategy instruction group were more dramatically improved than the control group. Moreover, the strategy group specifically mentioned the positive influences of reading strategies on their reading comprehension, but the control group mostly mentioned vocabulary and grammar.
Secondary Purpose 1		
To examine the effectiveness of color-coding as a new strategy assessment tool	RQ 5: About assessing text-specific strategy use and color-coding assessment (This question was raised for both main and secondary purposes.)	Color-coding assessment showed the students' text-specific strategy use very effectively. Placing color tags on relevant parts of the text helped students focus especially on the strategies that they learned (awareness-raising) while reading, which helped to see the influence of strategy instruction. Color-coding helped reveal the results of many students efficiently.
Secondary Purpose 2		
To examine the influence of reading strategy instruction on the transfer of reading strategies from L2 to L1	RQ 8: About wash-back effect from English to Korean reading strategies	As a result of strategy instruction, the participants started using the same reading strategies while reading in English and in Korean. The frequency was different (more often while reading in English than in Korean) but the types of reading strategies they used were similar.
	RQ 9: About awareness of the transfer and change in English and Korean reading strategy use	The participants in the strategy instruction group became more aware that they read an English text differently from a Korean text and are transferring English reading strategies to Korean. The control group did not see many differences in their reading.

CHAPTER 5: DISCUSSION, IMPLICATIONS, AND CONCLUSIONS

In the previous chapters, why and how this study was planned to help English learners, along with the methodology and the results were discussed. As a reminder, the purposes of this study were to examine whether strategy instruction promotes students' reading strategy use, whether the promoted strategy use helps them improve their English reading comprehension proficiency, whether color-coding assessment is effective as a strategy assessment tool, and whether strategy instruction helps students transfer their learned English reading strategies to Korean.

In this chapter, I discuss the results of the research questions by each theme, as presented in Chapter 4. I also present how the students perceive about the reading classes in this study in order to make sure that the only difference between the two groups (the strategy instruction group and the control group) was reading strategy instruction with the same materials. Based on the results and the discussion, the implications for future research and for teaching English in EFL settings are presented. Lastly, this chapter ends with the conclusions of this study.

Discussion Regarding Knowledge of Reading Strategies

Research Question 1: How does reading strategy instruction change students' knowledge of reading strategies?

Regarding the knowledge of reading strategies, the participants in the strategy instruction group acquired much of it, but those in the control group did not because the latter group received no training in reading strategies. The definitions of reading strategies given by both groups before the intervention, in the second week, were very

similar to each other, and they were based on partial understanding and rough guessing about reading strategies. After the intervention, in the 14th week, when the participants were asked to define reading strategies again, their comments clearly showed that the participants in the strategy instruction group understood what reading strategies are, while those in the control group did not.

Above all, I was very surprised at the results of this first research question. I expected that students to be aware of reading strategies from the start, but this was not the case. Even though the participants in this study had a quite high English reading proficiency, compared with many other Korean English learners, they were not aware of reading strategies. This suggests that all Korean English learners need to learn reading strategies explicitly to raise the awareness of reading strategies.

Considering how the participants defined reading strategies after the intervention, it seems that the participants in both groups were significantly affected by their teachers, current and prior. In the second week, they were more interested in grasping the main idea or finding a key point, which had been affected by their previous reading teachers. To both groups, I also emphasized how important it is to find out the main idea of a text or the intention of an author, while I demonstrated how to use reading strategies to find out the goal or the intention only to the strategy instruction group. Therefore, it is highly possible that the control group considered finding out a main idea or an intention itself to be a reading strategy because it was emphasized in the class during this study, while the strategy instruction group developed a clear idea of reading strategies through explicit explanation.

Discussion Regarding Reading Strategy Use

Both quantitative and qualitative data showed the strategy instruction modified the participants' reading strategy use during the semester. Comparing the initial strategy use before the intervention using the *Inventory for Reading Strategy Instruction (I-STARS)* with that after the intervention, the strategy use of the strategy instruction group increased more than that of the control group. However, strategy instruction did not promote general reading strategy use, which might need more practice for a longer period after the intervention. The journal entries of the strategy instruction group showed how the students' attitudes toward reading strategies changed as they learned each reading strategy. Also, my newly devised color-coding effectively helped me to identify whether the participants used the strategies that they had learned, and how often.

Discussion of Research Question 2: General Reading Strategy Use

Research Question 2: Does reading strategy instruction relate to students' general reading strategy use? In other words, are there any significant differences in pre- and post- general reading strategy use between the strategy instruction group and the control group?

The frequency of the participants' general reading strategy use was compared between the strategy instruction group and the control group. The ANOVA results showed that there was not significant promotion of general strategy use by either the control group or the strategy instruction group. The results seemed more identical throughout the semester and between the groups.

Because the students in the control group did not learn reading strategies during the semester, they did not change much, resulting in lack of knowledge of reading strategies, which was compared with the strategy instruction group in the previous section. Therefore, the students in the control group could not show any difference in their general strategy use.

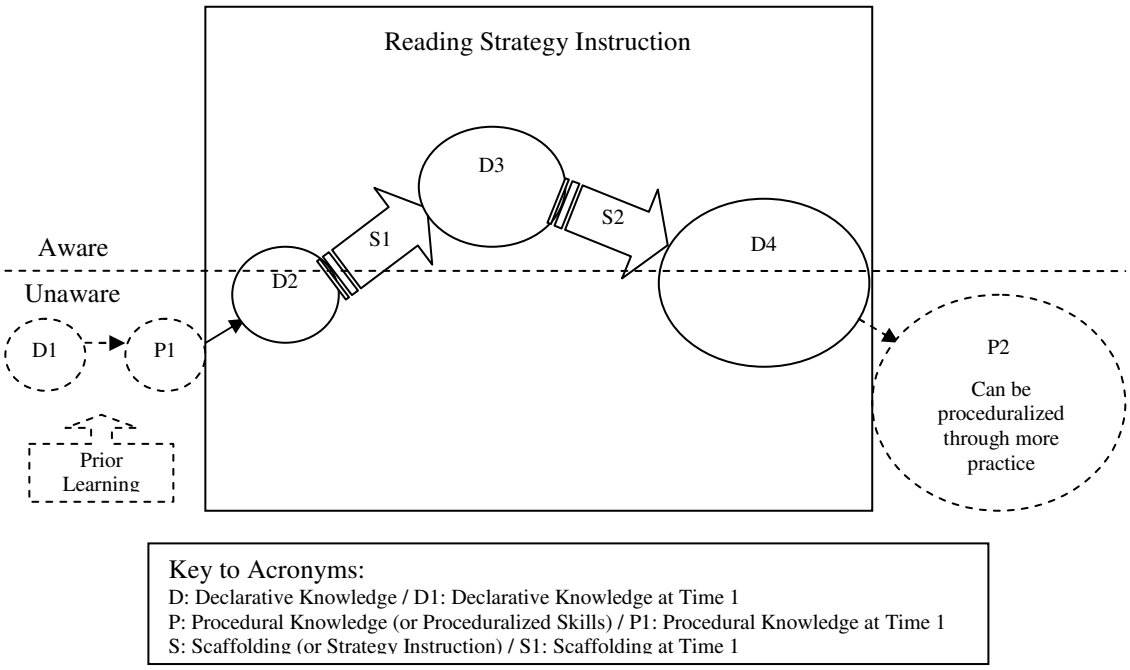
Then, why did the participants in the strategy instruction group not change their general reading strategy use in the post-test? One possible reason is that they, as well as the students in the control group, had few opportunities to read English texts outside of my class, which discouraged them from using general reading strategies often. Another possible reason is that they did not get used to using the reading strategies by themselves, which means that the intervention period, two hours a week for one semester, was not enough for them to generally self-regulate their strategy use. As seen in Figure 9, students need more independent practice to show promotion in general reading strategy use (P2).

Even though they learned how to use the reading strategies, without my assistance and reminders to use them in class, they might not have used them often. One student said that "We need to have more time to practice what we learned. Learning once a week is not enough to personalize the strategies." Therefore, general reading strategy use, compared with text-specific reading strategy use, seemed to need long-term interventions with the various genres of English texts.

Another possibility is that the students might have already proceduralized their general reading strategy use, which made them not able to report their

unconscious use of the strategies. Careful future research should be followed about general reading strategy use.

Figure 9. Strategy Instruction for Raising Strategy Awareness (from Chapter 4)



Note.

1. D1 and P1: Students might have already learned and been using some reading skills from prior learning.
2. D2: When students took the *I-STARS* and were asked to define reading strategies before the intervention, it is possible that their strategy awareness started to be raised.
3. S1 and S2: Through the reading strategy instruction with the journals and color-coding, students were explicitly taught reading strategies.
4. D3: Students' awareness of reading strategies are promoted by reflective activities such as the journals and color-coding assessment.
5. D4: Students' reading strategies started to become proceduralized as a result of instruction, but they can still report their strategy use.
6. P2: If students keep practicing, they can use the strategies automatically, but in a better way.
7. Reading strategy instruction in this study, the STARS, explains the part within the box.

The participants did not know what reading strategies were in the first week, but the mean frequencies of their general strategy use were 2.92 (the strategy instruction group) and 3.01 (the control group). It might be said that they did not need any knowledge of reading strategies to answer strategy inventories because each item describes concrete behaviors which do not need knowledge of the general term,

reading strategies. Another possibility is that the participants chose 3 out of 1 to 5 on the Likert scale without consciously reflecting on their reading behaviors before because option 3 tends to be chosen the most commonly in a survey when a respondent does not have a clear opinion. Therefore, when assessing the participants' strategy use with a questionnaire like the *I-STARS*, caution should be used to make sure that they chose 3 to mean that they use an item "sometimes" instead of meaning that they do not have a clear opinion.

Discussion of Research Question 3: Text-Specific Reading Strategy Use

Research Question 3: Does reading strategy instruction relate to students' text-specific reading strategy use? Put differently, are there any significant differences in pre- and post- text-specific reading strategy use between the strategy instruction group and the control group?

Unlike general reading strategy use, the participants' text-specific reading strategy use was significantly increased after the strategy instruction (post-test) than before (pre-test). Moreover, they used more text-specific strategies than those of the control group at the post-test, while their text-specific strategy use of both groups was almost identical at the pre-test. This means that the strategy instruction in this study helped the strategy instruction group participants use in practice what they learned while reading a text.

However, when analyzing the baseline strategy use, teachers should not consider low frequency scores simply as lack of knowledge of reading strategies. Low frequency scores might mean one of the following reasons: (a) he/she decided not to use them, (b) he/she did not have knowledge of reading strategies; (c) he/she

did not know how to use them, and (d) he/she cannot report descriptively automatized learning skills (or habits).

Before the intervention, the strategy instruction group participants seemed not to have knowledge of reading strategies, did not know how to use them, or could not describe the automatized skills. After receiving strategy instruction, their text-specific strategy use was significantly improved. This result shows how effective the reading strategy instruction was for the Korean EFL students.

Regarding the three strategies (Planning, Evaluating, and Monitoring) that I assumed that the students might implicitly learn[9] while learning Predicting, Summarizing, and Clarifying, I compared the results of the *I-STARS* using a dependent t-test. The strategy instruction group students, unlike the control group students, used Planning and Monitoring significantly more often at the post-test than the pre-test, as expected. However, Evaluating and Summarizing were not used as often as other strategies. These parallel patterns of those six strategy use may suggest that my assumption was correct, however, it is necessary to teach Planning, Evaluating, and Monitoring explicitly to see whether they are actually related to Predicting, Summarizing, and Clarifying.

Discussion of Research Question 4: Attitudes toward Reading Strategies

Research Question 4: How does reading strategy instruction change students' attitudes toward reading strategies?

The participants' narrative comments showed that they had negative attitudes

[9] As noted before, the participants in this study had higher reading proficiency (especially *TOEIC*) than average Koreans (ETS, 2007). Therefore, I was able to expect them to learn those three reading strategies implicitly while learning the other related reading strategies, based on their high reading ability. It is not easy for poor readers to learn reading strategies when they are taught implicitly.

toward reading strategies at first, but after they gained self-confidence in using them, their attitudes changed dramatically. Before the midterm, the participants had a hard time getting used to reading strategies because they thought that learning reading strategies was very difficult. Moreover, because they thought that they had been reading English texts well without reading strategies, they wanted to stick to their old habits. However, after the midterm, when they found a comfort zone around using reading strategies (i.e., when they realized that what they were already using, for example, grammar knowledge, can be useful strategies), their attitudes toward reading strategies became very positive. I think emotional factors are very important to reading strategy learners, especially when they are EFL learners.

The participants had the strongest and most negative feelings about the first reading strategy, Predicting. I think this would be an easy start to strategies, but it was difficult for these students. In retrospect, I should have started with something like grammar and should have taught grammar-related strategies. Resistance is the first natural reaction to change (Bovey & Hede, 2001). It seems that students' negative attitude toward Predicting was caused because many of the participants confused it with the strategy of Making Inferences. Students planned to make predictions about a text before reading it. However, instead of skimming, they started reading the text thoroughly and marked (underlined or circled) difficult parts. After reading all, they skimmed what they marked while reading, and place red tags on the parts that they had used to guess the meaning of the difficult parts. It took long time for them to read thoroughly, mark difficult parts, guess the meaning of the parts, and place red tags on the parts. This is one of the reasons they refused to use the strategy of Predicting at

first. However, after practice, they were able to distinguish making predictions from making inferences. Once they understood, they gained self-confidence and experienced how useful it was to predict what will happen in a text, and then they had the most favorable attitude toward this strategy, Predicting, of all the strategies at the end of the semester.

Another interesting finding about Predicting was that the participants realized that they need much background knowledge of a text's topic to make predictions well. I have not mentioned the important relationship between making predictions and having background knowledge of a topic, even though I demonstrated connecting what I already knew and what was presented in the text; nonetheless, the participants figured it out and commented that they would need much background knowledge. This implies that the participants started to think deeply about effective strategy use, so they may self-regulate their reading strategies when provided with more scaffolding and more opportunities to practice in a relatively longer period. Then, it is highly possible that their general strategy use will also be promoted in the long run.

Regarding the self-confidence in reading strategy use, when I used what the participants were familiar with (English grammar and summarizing activity) while teaching reading strategies, they gained greater self-confidence. Students were very familiar with English grammar because they had studied it in many kinds of English classes. Participants had been learning English grammar since they started learning English, and although they knew grammar pretty much, most of them considered it to be boring and difficult. When I demonstrated how a part of grammar (Finding Patterns) can be used to read a text effectively and emphasized that it is a reading

strategy, the participants started to actively commit to reading strategies. Because they knew how to find patterns, they gained self-confidence in using it as a reading strategy. Likewise, when teaching reading strategies to EFL students, it is essential to use English grammar as a buffer (a scaffold) to help them build self-confidence. Even thought they do not necessarily like English grammar, it can be taught as linked to reading, and the activities can be very interesting.

Observing the participants' change of attitudes toward reading strategies gave me an insight that reading strategies employing grammatical components, which are very familiar to EFL students, should be introduced early to reduce their strong resistance against new strategies. This type of reading strategy, if well trained, can serve as a comfort zone to EFL learners when they start to learn reading strategies. In addition, the results from the participants' attitudes toward reading strategies in this study showed that the key to success in strategy instruction, especially in the EFL contexts, was to promote the participants' trust in themselves, as being able to effectively use the reading strategies.

As noted in Chapter 4, many participants mistook the feeling of knowing for actually knowing after practicing Clarifying. Considering that some students with a high reading proficiency actually benefited from using the strategy of Clarifying to understand confusing parts, this strategy is more effective for more advanced English learners and for L1 readers than most (not so advanced) English learners. This reading strategy seems to need to be revised a little for English learners; for example, a word bank (list of the meaning of new words) may provide the environment similar to reading in their L1 only with structural difficulty.

Discussion of Research Question 5: Assessing Reading Strategy Use and Color-Coding Assessment

Research Question 5: To what extent do students use strategies when reading a new text during and after reading strategy instruction?

In order to observe to what extent the participants used the reading strategies while reading a text, a newly devised assessment method, color-coding, was used in this study. Palincsar and Brown's (1984) Reciprocal Teaching Approach (RTA) in L1 reading strategy research, which was adapted for this study, was mainly for a small group of students, and the think-aloud protocols were used also with too few participants to measure their strategy use. However, this study involved crowded classes in Korea, so the adaptation was needed to assess the participants' (38 in the strategy instruction group) strategy use several times over a period of a semester.

Therefore, I planned to use sticky colored flags as simplified, quantified think-aloud protocols. As they had to color-code the first difficult strategy learned, Predicting, the participants had negative attitudes toward color-coding at first. When I helped them embrace reading strategies by using grammar, as noted in the discussion of the research question 4, I provided similar scaffolding on how to color-code. Once the participants gained self-confidence in color-coding, they felt more comfortable in it than thinking-aloud. This study showed that color-coding assessment turned out to be very effective for measuring the students' strategy use in a crowded class, and it was more like qualitative strategy inventory than quantitative think-aloud, except for the difference that color-coding was done while reading, specifically about what they had learned, whereas inventories were done after reading, about reading strategies

including both what they had learned and what they had not. Color-coding turned out to serve as a complementary tool to the *I-STARS* when measuring the participants' reading strategy use. Because the different colors represented the students' different strategy use, it was very easy to see which color (which strategy) was mostly used by many students. Moreover, color-coding helped the participants comprehend what strategies to use when and monitor their use of strategies while reading. In sum, color-coding turned out to be an effective way not only to assess reading strategy use, but also to promote understanding of reading strategies.

However, caution is needed when using color-coding as an assessment tool. After students proceduralize the declarative knowledge of reading strategies, letting them color-code might interfere with natural, fluent reading using the strategies unconsciously. Therefore, it would be better to help students color-code while reading a text at the beginning and during strategy instruction than to make them color-code until the end, even when students can use the learned reading strategies comfortably.

Their think-aloud protocols in this study were almost of no use because they were too nervous to show what they really did. The participants (20 middle school students) in my pilot study were very good at thinking-aloud in front of me, but the participants in this study were not. It seems that the participants in this study were highly affected by the fact that I would grade them. Even though I said that I was not testing them, they were too concerned about their English pronunciation and worried about the fact that they might not understand the given text. In contrast, the participants in the pilot study knew that they would not see me again and their think-aloud protocols would not be reported to their teachers, which helped them think-

aloud very well in front of me. Therefore, this result suggests that the outside researchers, instead of scorers (teachers), should employ think-aloud protocols to measure students' strategy use.

Another possible explanation is that different reactions while thinking-aloud between the middle school students in the pilot study and the college students in this study might have resulted from their age differences (generation gap).

Discussion Regarding Reading Comprehension Proficiency

As noted in the previous chapter, the reading comprehension scores and self-rated English proficiency of the participants in the strategy instruction group improved significantly more than those in the control group.

Discussion of Research Question 6: Reading Comprehension Scores

Research Question 6: Does reading strategy instruction relate to students' reading comprehension scores? In other words, are there any significant differences in pre- and post- reading comprehension scores between the strategy instruction group and the control group?

The strategy instruction group and the control group had almost the same reading comprehension scores in the pre-test. As expected, in the final test, the strategy instruction group got significantly higher scores than the control group. Interestingly, however, the control group showed more improvement (higher scores) than the strategy instruction group at the midterm test.

Even though the difference in the midterm test was not significant, it should be paid attention to. Possible reasons for the similarity of midterm performance of the two groups are as follows. Only two strategies were introduced to the strategy

instruction group before the midterm test, and that groups' participants learned reading strategies comprehensively and intensively after the midterm. Moreover, while learning the two strategies before the midterm (Predicting and Making Inferences), the participants showed negative attitudes toward reading strategies and had a hard time getting used to them, as noted in the results of research question 4. Also, the strategy instruction group complained about lack of time more than the control group, on the same midterm test, because they brought the consciousness of using the strategies. These might have interfered with the strategy instruction group's performance at the midterm. As Beck et al. (1996) pointed out, the participants in the strategy instruction group paid too much attention to strategies themselves, which resulted in distraction from reading comprehension during the midterm test, even though strategies can be explicitly taught. Actually, several students in the strategy instruction group said something like, "When I got the midterm, I couldn't start because I kept thinking how to predict these questions" and "I had to spend 15 minutes only for planning how to read. I couldn't stop it. But then, I ran out of time, so I couldn't answer almost a third of the questions." In contrast, some students in the control group said, "I didn't expect to see these types of questions. They are very new," "I expected common cloze tests and finding similar expressions. Your questions were very difficult," and "I could have answered well if you asked common grammatical practice questions."

More importantly, the participants in the strategy instruction group mentioned the importance of vocabulary in the last journal entry about their improvement, but those in the control group did not. While the participants in the strategy instruction

group were using the reading strategies, they found out that they could use the strategies even better if they knew more words, as they realized the importance of background knowledge when they learned Predicting. It seems that this self-encouragement to learn vocabulary helped them show radical improvement in the final test.

Lastly, in the results section, I reported that the group difference and the increased text-specific strategy use caused by the strategy instruction were the best predictors of the gain in scores from the midterm test to the final test, as well as of the final test scores. Considering that the main purposes of this study were to examine the promotion of strategy use and the improvement in reading comprehension through strategy instruction, this finding supported the effectiveness of the strategy instruction for promoting reading strategy use and eventually for improving reading comprehension through increased strategy use.

Discussion of Research Question 7: Self-Rated English Reading Proficiency

Research Question 7: How does reading strategy instruction change students' self-rated English reading proficiency?

The self-ratings of English reading proficiency of the participants in the strategy instruction group became higher than those in the control group after the intervention, compared with before the intervention.

The participants' narrative comments showed that their self-rated English reading proficiency was closely related to their self-confidence in vocabulary. When the participants thought that they knew many words, they tended to rate their reading proficiency to be high. No one mentioned the importance of vocabulary when reading

a Korean text. The participants seemed to consider the differences between their English reading proficiency and their Korean reading proficiency to be caused by their different vocabulary knowledge. This suggests that to English learners, especially when their proficiency level is low, reading is a matter of decoding rather than comprehending (Collins, 1980; Lin, 2002).

The importance of scaffolding EFL students to have self-confidence was emphasized before, and I believe that their self-ratings of English reading proficiency are also closely related to their self-confidence. Because as the participants in the strategy instruction group were able to gain self-confidence, they probably rated their reading proficiency higher than before the intervention. However, the control group did not have this kind opportunity to gain self-confidence during the semester, which was why their self-rated reading proficiency did not improve much at the end.

Discussion Regarding the Relationship between English and Korean Reading Strategy Use

In order to check whether the participants in the strategy instruction group used the English reading strategies to read a Korean text, I asked them to read an English text and a Korean text and to take the *I-STARS* immediately after. The participants in the strategy instruction group were also asked to color-code while reading the texts.

Discussion of Research Question 8: Strategy Wash-back Effects

Research Question 8: To what extent are students' English reading strategies transferred to their Korean reading strategies?

The results from the *I-STARS* showed that the students used the reading strategies to the same extent in English and Korean, which means that the reading strategies used while reading an English text were closely related to those while reading a Korean text. In addition to this ANOVA result, the color-coding also showed visually (with colors) how similar the strategies were the participants used while reading both texts.

This supports my expectation that the participants would transfer the English reading strategies to their Korean reading, which also shows that the same metacognition works for reading in a native language as reading in a target language. It also supports that adapting reading strategies from L1 research in order to explain L2 reading was reasonable.

Discussion of Research Question 9: Awareness of the Transfer

Research Question 9: How does reading strategy instruction change students' Korean reading strategy use?

Many members of the strategy instruction group explicitly mentioned that they started using the learned strategies both while reading in English and while reading in Korean. In addition, when the participants had more confidence in reading, they tended to focus on finding the main idea of a text (a matter of comprehending), whereas when they were less confident, they tended to concentrate on grammatical details (a matter of decoding).

Interestingly, when asked to compare reading in English with reading in Korean, all the participants were keenly aware of their limited reading proficiency in English even though they did not think so when asked only about reading in English.

Therefore, to boost students' self-confidence, which turned out very important in promoting the participants' strategy use and in reading comprehension, teachers should provide an easy text first. This would be helpful instead of offering only challenging texts.

Discussion Regarding Perception about the Nature of This Reading Class

Because only one teacher (I) taught both the strategy instruction group and the control group, I wanted to make sure that I taught the reading strategies only to the strategy instruction group and that I taught the control group with the same materials but in the traditional way with a grammar emphasis. I asked the participants about how they felt about the class they took. The participants were asked to write the answers in English at home in the 13th week, so they had enough time to express their opinions in English and reflect on what they thought of the class.

I asked the participants whether they thought this class was different from other reading classes they had ever taken before and what made this class different from or similar to the other reading classes. In the strategy instruction group, 26 out of 38 students wrote that this class was very different from other classes. To the rest of them, it was the first reading class they took, so they could not compare this class with other reading classes. In other words, there was no one that thought this class was similar to other reading classes. For the question of what made this class different from other reading classes, I did not give any examples. Thus, there were diverse reasons given regarding the differences of my class from others. Some emphasized my materials, repetitive and intense training, interest in individual students, and so on, while 19 students (16 out of 26 and 3 who took this as their first reading class)

mentioned that learning reading strategies was the most different experience for them. Table 43 summarizes how the students described this class of the current study, compared with other classes that they had taken before.

Table 43

Comparisons to Other Reading Classes by the Strategy Instruction Group

This Class	Their Other Reading Classes
♦ Several skills on reading at this class helped me read efficiently. They don't stay as the theory, and they are useful applied skills. ♦ To learn reading strategies is the most important thing in this class. ♦ This class has basic skills with short articles. ♦ I could study various English reading skills. ♦ We learned about reading skills and used them. The professor trained and explained to us so many times so that we can use the skills naturally. ♦ This class was systematic and repetitive. This training was effective to me in improving English reading. ♦ I think the most difference is in teaching materials. ♦ The professor made students focus on the class. The professor focused on students' practical reading skills and had prepared many things for us.	♦ Other reading classes emphasized memorizing the vocabulary rather than introducing the reading strategies. ♦ Usually in other classes, it's pretty much about just reading some paragraphs and going through the problems which are related to the paragraphs. ♦ I have taken a TOEIC reading practice course when I was a sophomore. The class was boring, so I couldn't concentrate on the lecture. ♦ In other classes, students should read lots of columns and articles without basic reading skills. ♦ Generally, most classes taught us the meaning of words or grammars. ♦ Other reading class didn't teach us about reading strategies. ♦ In most reading classes, teachers always read everything and just teachers do it but in this class I do everything. ♦ Other reading classes usually taught words and grammar structures in order to select an answer. ♦ My teachers taught us only grammar.

The control group was asked the same questions in the same week. Interestingly, many students (21 out of 34) in the control group also thought that my class was different from other reading classes. However, as seen in Table 44, the

reasons why they considered this class different from the previous reading classes were not the same as those given by the strategy instruction group.

Table 44

Comparisons to Other Reading Classes by the Control Group

This Class	Their Other Reading Classes
♦ This class teaches practical things to me, not just about TOEIC. ♦ This reading class gives a variety of things. ♦ Through this class, I read some special articles and heard about your own experiences. ♦ This class is more interesting than the TOEIC classes. I can hear and learn very useful and interesting stories. The handouts in addition to the textbook were practical. ♦ The professor knew students by their names so I think that she has passion and interest in us. ♦ This class let us do many kinds of studies; writing letters, how to reply to emails, and grammar, etc. ♦ This class gives a variety of interesting content, a column, an essay, a myth, and a journal. ♦ Circuit court mail, rubrics, and individual interviews were very different from other classes. Those were very useful. ♦ Although it is a morning class, I can't get sleepy. ♦ Nobody sleeps or snoozes in class. ♦ I think this reading class is very practical.	♦ Other reading classes I have ever taken before used only textbooks [no other materials or handouts]. ♦ Other reading classes were just about "reading", which made us bored. ♦ The teacher of the TOEIC classes asked me just to read fast. I hated that. ♦ TOEIC classes mainly aimed at gaining high scores. Therefore, the classes tend to be quick, tedious, and difficult. ♦ When I took different reading classes I could discuss some topic with classmates and talk more. It was different. ♦ Last class was quite boring and he did always the same. He just translated the text and explained what that means. ♦ In the other reading classes, all I had to do was to read and solve the questions. ♦ In other classes, I was more like passive. The teachers delivered the content to me. ♦ I took a reading class last semester. That teacher did not communicate with students at all. Only about reports or exam. ♦ Other classes only taught translation. ♦ Generally, other classes are only based on the textbook or basic curriculum, but this class was seeking different ways using journals and handouts.

While the participants in the strategy instruction group pointed out the reading strategies (skills as most referred to) to be different, no one in the control group

mentioned reading strategies; instead, they considered my teaching materials, homework, and writing journal entries to be different from other reading classes. Moreover, five students said that this class was not different from other traditional reading classes, and they wrote, "They usually use textbooks and some handouts," and "Well, I did not feel much interest in English, so I think all English classes are the same to me." Eight students had never taken other reading classes before and had no basis for comparison.

When I planned this study, I worried about a possibility that the participants would give face-saving comments about my classes. However, the participants felt very comfortable being honest in writing (including all the journals) what they thought and felt. However, they were not comfortable during the think-aloud protocols, although they were also honest then.

To summarize, as I expected, the participants in the strategy instruction group were aware that they were learning reading strategies. Even though the students in the control group considered my class different from previous English reading classes, it was not because of reading strategies, but mostly because of diverse reading materials. Moreover, while no one in the strategy instruction group considered my class to be the same as other reading classes, several in the control group did. By and large, the participants' answers showed that these two groups were treated differently from each other.

Implications for Future Research

One of the most important instruments used in this study, the *I-STARS,* was made by adapting the strategies from the RTA (Palincsar & Brown, 1984), the *Survey*

of Reading Strategies (SORS) (Mokhtari & Sheorey, 2002), and the *Strategy Inventory for Language Learning (SILL)* (Oxford, 1990). The procedures to teaching strategies in a classroom were adapted from the Cognitive Academic Language Learning Approach (CALLA; Chamot & O'Malley, 1994b). This study showed the combined reading strategy instruction from L1 and L2 research was effective for Korean university students in the EFL setting. In order to validate this inventory, more studies should be conducted.

This study discovered a possible influence of strategy instruction on raising students' strategy awareness. When I asked the participants to think about each strategy, I observed that some students wrote in their journals, "I might have been using this strategy without realizing it. I think I have to try to use it consciously in the future." Including this statement, multiple examples were examined for evidence that strategy instruction helped raise the awareness of the participants' own reading habits (or skills), which would help them decide whether to employ a newly learned strategy. Future research is needed on the effectiveness of raising awareness for modification of reading strategy use.

In addition, I taught the six reading strategies in the following order: Predicting, Making Inferences, Summarizing, Finding Patterns, Clarifying, and Grouping. Further studies on what kinds of reading strategies and in what order to teach them should be followed to discover whether those variances might affect students differently.

Lastly, the results of this study showed how effective and efficient color-coding was to assess the participants' reading strategy use. In order to see whether it

is effective with other samples, including ESL learners, future research is recommended on the use of color-coding assessment, especially for crowded classes.

Implications for Teaching English in EFL Settings

It is highly recommended to scaffold EFL students to provide a comfort zone in using reading strategies by using what they were familiar with. When teaching EFL learners, the most important factor influencing their performance was the learners' self-confidence. In this study, I used grammatical practice which has been a main activity in traditional reading classes, in order to promote the participants' self-confidence in understanding reading strategies and color-coding assessment. I emphasized Finding Patterns to provide a buffer or sense of familiarity for Korean participants.

For example, instead of explaining grammatical elements in detail, I explained how students can find a verb and its subject in a sentence, emphasizing the importance of verbs and subjects for understanding sentences, compared with other grammatical elements like adverbs or articles. I added when students do not have to find specific information in detail, they can comprehend a text effectively while finding verbs and subjects. Then, I let the participants place color tags on each verb and its subject while skimming. They liked this hands-on activity without considering it as grammar lesson. Moreover, because they checked the right or wrong answers with me, they were also able to understand the concept of color-coding. Therefore, it is recommended that teachers start with an easy (grammar-related) activity, which is familiar to them, when teaching new things like reading strategies. However, using an easy or familiar activity might make students lose interest; thus, teachers should be

sensitive to their students' reactions or attitudes. Also, it would be better to use the grammar-related activity without full, intensive explanation, which might cause students' unnecessary resistance to grammar itself.

There was another helpful grammatical practice, which was Summarizing as noted in the results chapter. Even though the students learned this strategy and they had been already familiar to it, they did not use it often. Here are some helpful hints for teachers when they teach it to EFL students. I taught Summarizing as the third strategy. Since the participants were familiar with it from the previous traditional reading classes, I emphasized it as a reading strategy and tried to help them find a better way to summarize. It has been generally believed by English teachers in Korea that summarizing in English will help students learn English better.

To find out whether this general belief was correct, I asked the participants to summarize three similar texts in English, in Korean, and in the language they felt more comfortable with. I hired two Korean-American pre-service teachers to score their summaries using the same rubric that they used to score the participants' Clarifying (Chapter 4). The participants' summaries in Korean got higher scores than those in English, which means that they summarized better in Korean than in English. Even though it was not significant, the mean scores were higher in Korean (2.56 out of a possible 4) than in English (2.24). Moreover, when they were allowed to choose a language to summarize, they got even higher mean scores (2.72) than when they were forced to summarize in a certain language.

Therefore, when teaching how to summarize, teachers should not necessarily force students to summarize in English only (or in Korean only). Instead, they have to

allow their students to choose a language to produce a better summary because the purpose of summarizing is to help students understand and remember the content of a text more effectively than without summarizing.

In addition, only to the strategy instruction group, I emphasized that summarizing in Korean is not translating. I demonstrated how to extract key information to paraphrase to write a summary with one or two sentences. As a result, the participants in the strategy instruction tried not to translate, so their summaries tended to include what they learned from a text. On the other hand, the summaries written in Korean by the participants in the control group were longer than those by the strategy instruction group, and more like translations than summaries. Therefore, it is recommended that teachers teach how to paraphrase key information as a summary, helping students not translate all the information in a text.

Conclusions

This study draws several very important conclusions regarding strategy instruction. First, the participants were able to develop knowledge of reading strategies and learn to use reading strategies through explicit strategy instruction. Second, the strategy instruction was effective in promoting the participants' text-specific strategy use. However, the strategy instruction did not seem to promote general reading strategy use, which may have happened if there was a longer term intervention. This would have helped the participants self-regulate their strategy use in general outside the classrooms. Third, the English grammar played a crucial role, as a comfort zone, for the strategy instruction group, allowing me to introduce the participants new strategies and a new assessment tool, color-coding. Fourth, color-

coding turned out to be effective for assessing text-specific reading strategy use as a complementary method to the strategy questionnaire. Color-coding seemed to be a better instruction tool for teaching reading strategies than an assessment tool. At the some time it was raising the awareness of strategies for the students. Fifth, the participants' increased strategy use positively influenced their reading comprehension scores. Sixth, the participants showed strategy wash-back effects, which means that they transferred their English reading strategies to their Korean reading. Lastly, the results strongly supported the importance of emotional factors such as self-confidence to EFL learners. When the students felt comfortable and confident in doing something, they showed remarkable improvement. In sum, the Korean EFL participants benefited from the strategy instruction for promoting their strategy use and ultimately for improving their reading comprehension proficiency.

While this study showed the effectiveness of reading strategy instruction, it also identified some limitations, which stem from the limited scope of the participants, their setting, and the amount of time. Regarding the scope of the participants, this study recruited 80 Korean college-level students in the EFL context of a large university near Seoul, the capitol of South Korea. Therefore, the results may not be applicable to students of other educational levels such as middle school students and elementary school students. Also, because this study was conducted in a Korean EFL setting, university ESL or EFL students in other countries might not show similar results. Finally, a greater length of time might have shown different findings.

Despite the limitations, this study contributed to connecting L1 and L2 reading strategy research because it showed that similar metacognition was involved

in reading in L1 and in L2. Also, this study contributed to providing an effective reading strategy instruction model, the STARS, which was adapted from both L1 and L2 research (RTA, *SORS, SILL,* and CALLA). Lastly and most importantly, this study contributed to proposing a useful complementary tool, color-coding, to assess reading strategy use. Moreover, color-coding assessment helped the participants understand and monitor reading strategies because physically placing colored tags on relevant parts of the text required the awareness of correct use of the strategies.

Summary of This Chapter

In this chapter, I presented the discussion of the results for the research questions in terms of (a) knowledge of reading strategies, (b) reading strategy use, (c) reading comprehension proficiency, and (d) strategy wash-back effects between English and Korean reading strategies. Also, the students' perception about the nature of my class was compared between the strategy instruction group and the control group. In addition, the limitations stemmed from the limited scope of the participants, their setting, and the amount of time were briefly presented. Then, the implications for future research and for teaching English in EFL settings were provided, based on the discussion and the results of this study. Lastly, I provided the summary of the conclusions of this study.

APPENDICES

Appendix 1. *Inventory for Strategy Awareness-Raising for Success (I-STARS)*

*The translating strategies, 34 and 38, were excluded from the *I-STARS-Korean.*

Direction

You will find statements about reading in English. Please read each statement. Circle Yes if you did the behavior while reading the immediately preceding text, and circle No if you didn't. In addition, circle one (1, 2, 3, 4, 5) that tells HOW TRUE OF YOU THAT STATEMENT IS. Answer in terms of **how well the statement describes you**. Do not answer how you think you should be, or what other people do. **There are no right or wrong answers to these statements**. Work as quickly as you can without being careless. This usually takes about 10-15 minutes to complete. If you have any questions, let the teacher know immediately.

Yes: I did while reading. No: I did not do while reading.	1. Never or almost never true of me 2. Usually not true of me 3. Somewhat true of me 4. Usually true of me 5. Always or almost always true of me

	Item	Did you do this **while reading the text you just read**?	How often do you do this **while reading in English in general**? Low → High
1	Before reading, I predicted what the text will be about, applying what I already knew while I read titles, subtitles, and the content list.	Yes No	1 2 3 4 5
2	Before reading, I set up a certain amount of time to read a text.	Yes No	1 2 3 4 5
3	Before reading, I predicted what the text will be about, applying what I already knew while I saw pictures and graphs.	Yes No	1 2 3 4 5
4	Before reading, I figured out my own goal, that is, what I wanted to get out of a specific text.	Yes No	1 2 3 4 5
5	Before reading, I predicted what the text will be about, applying what I already knew while reading the words that were repeatedly present in the text.	Yes No	1 2 3 4 5
6	Before reading, I skimmed the text first to get the main idea and read for the details.	Yes No	1 2 3 4 5
7	Before reading, I figured out any external goals set by the teacher or the reading activity.	Yes No	1 2 3 4 5
8	While reading, I jotted down key information in the margin—important words, main ideas, unfamiliar words, etc.	Yes No	1 2 3 4 5
9	While reading, based on the key words, I found what seemed to be a main sentence in each paragraph.	Yes No	1 2 3 4 5
10	While reading, I summarized by seeing a mental image of what I read.	Yes No	1 2 3 4 5
11	While reading, I summarized by using a graphic organizer of what I was reading for each paragraph.	Yes No	1 2 3 4 5

Yes: I did while reading. No: I did not do while reading.	6. Never or almost never true of me 7. Usually not true of me 8. Somewhat true of me 9. Usually true of me 10. Always or almost always true of me

	Item	Did you do this **while reading the text you just read**?	How often do you do this **while reading in English in general**? Low → High
12	While reading, if I had trouble, I went back to previous sentences.	Yes No	1 2 3 4 5
13	While reading, I asked myself conceptual questions while reading, such as how it was related to what I already knew.	Yes No	1 2 3 4 5
14	While reading, I checked whether my first meaning made sense, and if it did not, I tried another meaning.	Yes No	1 2 3 4 5
15	While reading, I thought over why I did not understand something well—sentence structure, grammar rules, vocabulary, etc.	Yes No	1 2 3 4 5
16	While reading, I took notes to help me understand what I read.	Yes No	1 2 3 4 5
17	While reading, when I did not know a word, I applied what I already knew about the appearances of the word, such as capital letters and italics, in order to guess what the word means.	Yes No	1 2 3 4 5
18	While reading, using key words, I summarized what I was reading for each paragraph.	Yes No	1 2 3 4 5
19	While reading, I checked my level of detail and modify my approach if it did not meet my goals.	Yes No	1 2 3 4 5
20	While reading, when a sentence or a paragraph was not clear to me, I repeatedly read it until I understood.	Yes No	1 2 3 4 5
21	While reading, I stopped to think what I was reading.	Yes No	1 2 3 4 5
22	While reading, when I did not know a word, based on what I knew about the parts of the word, such as prefix and suffix, I made a guess what the word meant.	Yes No	1 2 3 4 5
23	While reading, I highlighted the important information by underlining, circling, using stars, using a colored marker, etc.	Yes No	1 2 3 4 5
24	While reading, when I could not understand a sentence, I applied what I already knew to the pictures and graphs to guess what the sentence meant.	Yes No	1 2 3 4 5
25	While reading, when some parts were confusing, I read the parts aloud until they became clear.	Yes No	1 2 3 4 5
26	While reading, I asked myself factual questions (one or more of these: who, what, when, where, why, how, etc.).	Yes No	1 2 3 4 5
27	While reading, I checked if a prediction that I made earlier was right.	Yes No	1 2 3 4 5
28	While reading, I summarized by drawing pictures of what I was reading.	Yes No	1 2 3 4 5
29	While reading, when I could not understand a sentence, I applied what I already knew to the titles and subtitles to guess what the sentence meant.	Yes No	1 2 3 4 5
30	While reading, I checked whether I was concentrating on what the writer is saying and put unrelated topics out of my mind.	Yes No	1 2 3 4 5
31	While reading, based on what I had read so far and the linking words, pronouns, etc., I predicted what will happen next.	Yes No	1 2 3 4 5
32	While reading, to keep reading a text without looking up every new word, I read other words around the new word.	Yes No	1 2 3 4 5

Yes: I did while reading. No: I did not do while reading.	11. Never or almost never true of me 12. Usually not true of me 13. Somewhat true of me 14. Usually true of me 15. Always or almost always true of me

	Item	Did you do this **while reading the text you just read**?	How often do you do this **while reading in English in general**? Low → High
33	While reading, I checked my strategies and modified them if my approach to the task was not working.	Yes No	1 2 3 4 5
34	While reading, I avoided translating every word or sentence in Korean.	Yes No	1 2 3 4 5
35	While reading, when I could not understand what I was reading, I asked for help.	Yes No	1 2 3 4 5
36	While reading, I paid close attention to the linking words, pronouns, etc. to see the relationships between sentences.	Yes No	1 2 3 4 5
37	While reading, I changed reading speed depending on the difficulty of the text.	Yes No	1 2 3 4 5
38	While reading, I found the relationship between English and Korean.	Yes No	1 2 3 4 5
39	While reading, I paraphrased (restate ideas in my own words) to better understand what I read.	Yes No	1 2 3 4 5
40	After reading, I checked whether I met my reading goal.	Yes No	1 2 3 4 5
41	After reading, using key words, I summarized what I read at the end of the text.	Yes No	1 2 3 4 5
42	After reading, I summarized by using a graphic organizer of what I read at the end of the text.	Yes No	1 2 3 4 5
43	After reading, I compared the information in my summary with what I expected when I previewed the text.	Yes No	1 2 3 4 5
44	After reading, by looking through the text, I compared and checked whether I was able to summarize what I just read.	Yes No	1 2 3 4 5
45	I grouped similar words or expressions to remember them.	Yes No	1 2 3 4 5

Open-Ended Questions of the *I-STARS* and *I-STARS-Korean*

	I-STARS	*I-STARS-Korean*
Pre-test	♦ Are there any items you frequently do while reading an English text, but you can't find in this questionnaire? If so, which one(s)? ♦ If you find any item in this questionnaire irrelevant to the Korean EFL situation, please write its number. If possible, please revise it relevant to the Korean EFL situation. ♦ Please choose what item(s) would be the most effective for you for reading in English. ♦ Please choose what item(s) would be the least effective for you for reading in English.	♦ Are there any items you frequently do while reading a Korean text, but you can't find in this questionnaire? If so, which one(s)? ♦ If you find any item inappropriate for reading in Korean (proper only for reading in English), please write its number and revise it proper for reading in Korean. ♦ Please choose what item(s) would be the most effective for you for reading in Korean. ♦ Please choose what item(s) would be the least effective for you for reading in Korean.
	I-STARS	*I-STARS-Korean*
Post-test	♦ Please write down what behavior(s) you **didn't do** for reading in English before but started doing as a result of this class. Why do you think you started doing the behavior(s)? ♦ Please write down what behavior(s) you often did for reading in English but stopped (or do less often) after this class. Why do you think you stopped (or do less often)? ♦ Please define "reading strategy". Why do you think so?	♦ Please write down what behavior(s) you **didn't do** while reading in Korean before but started doing as a result of this class. Why do you think you started doing the behavior(s)? ♦ Please write down what behavior(s) you often did for reading in Korean but stopped (or do less often) after this class. Why do you think you stopped (or do less often)? ♦ What was(were) the item(s) that you do most differently between while reading in English and while reading in Korean? Why do you think so?

Appendix 2. ***Background Information Questionnaire***

Date _____

Background Information Questionnaire

1. Name _____ 2. Gender _____ 3. Age _____
4. General Major: Engineering, Science, Business, Economics, Languages, Humanities, Sociology, Design, Dance, Other _____
5. Special Major _____ 6. What year are you in? _____
7. How long have you been studying English? _____
8. Have you studied English in a private institute, or have you been tutored? _____
   If so, how long? In a private institute _____ By a tutor _____
9. How do you rate your English reading proficiency as compared with the proficiency of other classmates? (Circle one.)
   Excellent Very Good Good Fair Poor
10. Have you taken TOEIC or TOEFL? If so, please write your score. _____
    Other standardized English test _____ Score _____
11. How important is it for you to become proficient in reading in English? (Circle one.)
    Very Important
    Quite Important
    Somewhat Important
    Not so Important
    Not Important
12. Why do you want to learn English? (Circle one.)

Interested in English	Interested in culture
Have friends who speak English	Need it for my future career
Required to graduate	Need it for travel

    Other reason (Write it in.)

    _____

13. Do you enjoy reading in English? Yes / No
14. Have you ever learned other languages? Yes / No
    If so, where and how long have you studied the languages? _____

Appendix 3. Journal Entries for the Strategy Instruction Group

Journal 1. About the Self-Rated Reading Proficiency and the Definition of Reading Strategy

1. How do you rate your overall English reading proficiency as compared with the proficiency of other classmates? (Circle one.)

   Excellent Very Good Good Fair Poor

   Why do you think so?

   _____
   _____
   _____
   _____

2. Do you know or have you ever heard of reading strategies?

   No Yes

3. What do you think a reading strategy is (or what do you know of reading strategies)? Please give a metaphor of what reading strategies are to you. It will be something similar to "A book is food for the mind."

   _____
   _____
   _____
   _____

   Why do you think so?

   _____
   _____
   _____
   _____

Journal 2. About the Strategy, Predicting

1. You just learned and practiced a reading strategy, Predicting. What do you think of Predicting? Do you consider it useful for your reading in English, or does it interfere?

   _____
   _____
   _____

   Why do you think so?

   _____
   _____
   _____

2. We made predictions using a graphic organizer for Predicting in two ways: per text and per paragraph. Which is better for you?

   _____
   _____
   _____

   Why do you think so?

   _____
   _____
   _____

3. If you can think of a better way to predict, please write it down.

   _____
   _____
   _____

4. Are you going to use Predicting when you read an English text?

   _____
   _____
   _____

   Why do you think so?

   _____
   _____
   _____

Journal 3. About the Strategy, Making Inferences

1. You just learned and practiced a reading strategy, Making Inferences. What do you think of Making Inferences? Do you consider it useful for your reading in English, or does it interfere? Are you going to use it while reading in English?

   _____
   _____
   _____

   Why do you think so?

   _____
   _____
   _____

2. We practiced Making Inferences in two ways: (1) After reading an entire text, distinguishing among facts (what is explicitly written in the text), inferences (what is inferred based on the text), and false statements; and (2) Guessing the meaning of new words using the context. Which is better for you?

   _____
   _____
   _____

   2a. Do you think (1) is useful for your reading in English?

   No Yes

   Why do you think so?

   _____
   _____
   _____

   2b. Do you think (2), instead of looking up every new word, is helpful for your reading in English?

   No Yes

   Why do you think so?

   _____
   _____
   _____

3. What do you think are differences between Predicting and Making Inferences?

   _____
   _____
   _____

Journal 4. About the Strategy, Summarizing

1. Do you summarize while reading in English?

   No → Go to no. 2 Yes → Go to no. 3

2. Why do you NOT summarize while reading in English?

   _____
   _____
   _____

3. Do you summarize per paragraph, or do you summarize at the end for an entire text?

   _____
   _____
   _____

   Why do you do so?

   _____
   _____
   _____

4. When you summarize, do you write a summary, draw a picture, fill in a table, or what else do you do?

   _____
   _____
   _____

   Why do you do so?

   _____
   _____
   _____

5. Do you summarize in English or in Korean, while reading in English?

   _____
   _____
   _____

   Why do you do so?

   _____
   _____
   _____

Journal 5. Checking Reading Strategy Use

1. What did you see first right after you received this text?

   _____
   _____
   _____

   Why do you do so?

   _____
   _____
   _____

2. What do you think is the genre of this text?

   _____
   _____
   _____

3. What is this text about (summarize this text)? What do you have to do after reading?

   _____
   _____
   _____

4. How much (how well) did you understand this text?

   _____
   _____
   _____

5. What made you feel the most difficult while reading this text?

   _____
   _____
   _____

Journal 6. About the Strategy, Finding Patterns (s+v)

1. While reading in English, do you read sentence by sentence?

No → Go to no. 2 Yes → Go to no. 3

2. If you do not read sentence by sentence, what do you read (e.g., I read only the first and the last sentences / I skim first and read what I like to / I read the sentences that have many familiar words)? → Go to no. 4

_____
_____
_____

3. Did you read English sentences with finding verbs and subjects before you learned Finding Patterns in this class?

No → Go to no. 4 Yes → Go to no. 5

4. When you read sentence by sentence, not finding specifically verbs or subjects, do you have any particular patterns you are looking for while reading (e.g., prepositions, nouns, or conjunctions)? What are they?

_____
_____
_____

Why do you do so?

_____
_____
_____

5. Are you going to find verbs and subjects while reading in English?

_____
_____
_____

Why are you going to do so?

_____
_____
_____

Journal 7. About the Strategy, Clarifying

* Please answer the questions, based on what we practiced Clarifying while reading *Tantalize*.

1. Were there any parts confusing or incomprehensible in the text?

   No → Go to no. 5 Yes → Go to no. 2

2. What do you think made you confused or not understand those parts (e.g., because of difficult words, complicated sentence structures, or unfamiliar topic)?

   _____
   _____
   _____

3. You were asked to use Clarifying to understand the confusing or incomprehensible parts: (1) to read aloud, (2) to read over and over, or (3) to read from the previous sentences. Were any of these helpful?

   No → Go to no. 5 Yes → Go to no. 4

4. Which of (1), (2), and (3), or all, was helpful?

   _____
   _____
   _____

   Why are you going to do so?

   _____
   _____
   _____

5. What did you use to do to understand confusing or incomprehensible parts before you learned Clarifying (e.g., I skip it / I ask others about them / I look up dictionaries)?

   _____
   _____
   _____

6. Are you going to use Clarifying while reading in English?

   No Yes

   Why are you going to do so?

   _____
   _____
   _____

Journal 8. About the Strategy, Grouping

* Group the given words into categories that you think they have in common. Please list the words under each category.

ancestor, artificial, bleach, brand, calm, coast, communicate, detergent, dock, ferry, fresh, old-fashioned, organize, polish, polite, private, receive, reply, ripen, rude, subject, symptoms, temperature, unique, upset, urgent, vines, worth

1. Did you use Grouping before you learned it in this class?

   No Yes

2. When you remember or retrieve the meaning of a word, was Grouping helpful?

   No Yes

3. What do you do to remember (memorize) new words or expression (e.g., writing new words repeatedly / making a story using all new words)

   _____
   _____
   _____

4. Are you going to use Grouping while reading in English?

   No Yes

   Why are you going to do so?

   _____
   _____
   _____

Journal 9. About Identifying Text Genres

* Read the following parts of texts (given in the next page) that you will read in *NorthStar*. Even though they are the beginning parts of the texts, you will be able to identify what genres they are. If you want to, you can read the entire texts in the textbook. Read each part and answer the questions below.

1. Write down a genre of each text. What made you think so? Please specify it from the text.

(1) The Climate Train

_____
_____
_____

(2) Seasonal Affective Disorder

_____
_____
_____

(3) Will Indigenous Cultures Survive?

_____
_____
_____

2. Which one do you consider the easiest to read?

_____
_____
_____

Why do you think to do so?

_____
_____
_____

The Climate Train / By Jackson Kari (pp.147-148)

In December 1997, thousands of scientists and other interested people traveled to Kyoto for an international conference on climate and pollution. Months before the conference, most of these people began making airplane reservations. But one English scientist named Ben Matthews thought that flying to Kyoto didn't seem right. He thought, "Airplanes make a lot of pollution… Is it right to travel on airplanes so that we can talk about ways to make less pollution?" Ben believes that in order to make less pollution, all people—even scientists—need to change the way they live. He decided to set an example.

He began to plan a trip to Kyoto that made less pollution than an airplane trip. Other people soon joined him until there were 36 people from 14 countries ready to travel by land and sea to Kyoto. The group called itself "the Climate Train."

Planning the Climate Train trip was very complicated. Ben and his fellow travelers had to carefully choose a route, check schedules, buy tickets, and arrange overnight stays in some towns—all in many different languages. They also had to get visas for every country that they traveled through, even if they didn't stop there.

…

Seasonal Affective Disorder (SAD) (pp.167-168)

People who have Seasonal Affective Disorder (SAD) get depressed during the fall and winter. SAD seems to be much more common in some places than in others. For example, in the United States, less than 1 percent of the people in Florida, a southern state, have SAD, but 10-30 percent of the people in Alaska, a northern state, have it.

Symptoms

The symptoms of SAD are almost the same as the symptoms of depression. The biggest differences is that depression can happen at any time of year, but SAD happens at any time of year, but SAD happens only during the fall and winter months. SAD happens particularly in the far north and far south, where there is less light in the winter. The most common symptoms include:

- sleeping more than usual
- eating more than usual
- getting fatter or thinner quickly
- not having enough energy
- thinking about death
- not wanting to be with other people

…

Will Indigenous Cultures Survive? (pp.186-187)

In northern Columbia, a four-year-old Kogi Indian is carried high into the Sierra Nevada mountains. He will live in a small dark house for 18 years while he learns to be a holy man. In the Amazon, a Waorani hunter finds animals by following their smell. A Mazatec farmer in Mexico sends messages to other Mazatec by whistling across the wide valleys of his mountain homeland.

Stories about such people show us that there are many different ways of understanding the world and living life. The way we is just one way.

About 300 million people, or 5 percent of the world's population, are members of indigenous cultures. These cultures have deep roots in their histories, languages, and the places they live in. Sadly, their unique ways of living are disappearing because of the fast changes that are happening all around them.

Change is an important part of any living culture. In order to survive, a culture must adapt to some changes in its environment. Unfortunately, the changes that are happening today are so big and so fast that most indigenous cultures simply cannot adapt to them. For example, in Brazil, a gold rush brought sickness to the Yanomami ten years ago. Now one-quarter of them are dead. …

Journal 10. About the Self-evaluation of their Improvement and the Nature of the Class of This Study

1. Think about your English reading speed, compared with other classmates. Do you read faster than the others?

_____
_____
_____

(1) If yes, did the speed get faster than the beginning of this semester? What do you think helped you read faster than before?

_____
_____
_____

(2) If no, did the speed get slower than or the same to the beginning of this semester? What do you think is its reason?

_____
_____
_____

2. Do you think your English reading proficiency has improved, compared with the first week of this class?

_____
_____
_____

(1) If so, what made you think so? What has improved?

_____
_____
_____

(2) If not, what do you think is the reason why your reading proficiency has not improved?

_____
_____
_____

3. What made you take this English Reading class from among many other English classes?

_____
_____
_____

4. Have you ever taken English reading classes before?

_____
_____
_____

(1) Do you think this class is different from other reading classes?

_____
_____
_____

(2) If so, what do you think is different from other reading classes?

_____
_____
_____

(3) If not, what do you think is the same to other reading classes?

_____
_____
_____

5. What was the best or worst thing in this class?

_____
_____
_____

Appendix 4. Journal Entries for the Control Group

Journal 1. About the Self-Rated Reading Proficiency and the Definition of Reading Strategy

1. How do you rate your overall English reading proficiency as compared with the proficiency of other classmates? (Circle one.)

   Excellent Very Good Good Fair Poor

   Why do you think so?

   _____
   _____
   _____

2. Do you know or have you heard of "Reading Strategy"?

   No Yes

3. What do you think "Reading Strategy" is (or what do you know of "Reading Strategy")? Please give your metaphor of "Reading Strategy" like "A book is food for the mind."

   _____
   _____
   _____

   Why do you think so?

   _____
   _____
   _____

Journal 2. About the Definition of Reading

1. What do you think what is “Reading”? Please write down a metaphor to define “Reading” like “A book is food for the mind.”

   _____
   _____
   _____
   _____

   Why do you define it so?

   _____
   _____
   _____
   _____

Journal 3. About the Definition of Reading Comprehension and Its Evaluation

1. What is “Reading Comprehension”? Please write down a metaphor to define “Reading Comprehension” like “A book is food for the mind.”

   _____
   _____
   _____
   _____

   Why do you define it so?

   _____
   _____
   _____
   _____

2. With what and how should we evaluate “Reading Comprehension”?

   _____
   _____
   _____
   _____

   Why do you think so?

   _____
   _____
   _____
   _____

Journal 4. About a Reading Activity, Summarizing

1. Do you summarize while reading in English?

   No → Go to no. 2 Yes → Go to no. 3

2. Why do you NOT summarize while reading in English?

   _____
   _____
   _____

3. Do you summarize per paragraph, or do you summarize at the end for an entire text?

   _____
   _____
   _____

   Why do you do so?

   _____
   _____
   _____

4. When you summarize, do you write a summary, draw a picture, fill in a table, or what else do you do?

   _____
   _____

   Why do you do so?

   _____
   _____
   _____

5. Do you summarize in English or in Korean, while reading in English?

   _____
   _____

   Why do you do so?

   _____
   _____
   _____

Journal 5. Checking Reading Strategy Use

1. What did you see first right after you received this text? _____
   _____
   _____
   _____

   Why did you do so?
   _____
   _____
   _____

2. What do you think is the genre of this text?
   _____
   _____
   _____

3. What is this text about (Summarize this text.)? What do you have to do after reading?
   _____
   _____
   _____

4. How well did you understand this text?
   _____
   _____
   _____

5. What made you feel the most uncomfortable while reading this text?
   _____
   _____
   _____

Journal 6. About Texts They Like and Hate to Read

1. When you have to remember the content of a text for a test later, what do you do? What helps you remember the content of a text?

   _____
   _____
   _____

   Why do you do so?

   _____
   _____
   _____

2. What types of English texts do you like to read? What types of texts do you think are the most interesting?

   _____
   _____
   _____

   Why do you think so?

   _____
   _____
   _____

3. What types of English texts do you hate to read? What types of texts do you think are the most difficult?

   _____
   _____
   _____

   Why do you think so?

   _____
   _____
   _____

Journal 7. About Favorite English Learning Experiences

1. What was your favorite experience in English learning?

   _____
   _____
   _____
   _____
   _____
   _____

   Why do you think so?

   _____
   _____
   _____

Journal 8. Completing a Vocabulary List

*Read the following text and write down the meaning of the words in bold.

FOCUS ON: Keep at it!

I hope the time and effort you've **put into finding out** more about phrasal verbs has **paid off**. If you've **knocked** yourself **out**, **stuck with** it, and not **fallen behind** or gotten **mixed up** or **burned out**, a great improvement in your ability to understand and use English has **come about** – you've **ended up** being better able to **figure out** what you read and hear and better able to **come up with** the right word when you write or speak. But don't get **stressed out** and **give up** if you can't remember every meaning of every verb – improving your vocabulary takes time. It **comes down to** regularly **brushing up** on what you have learned and, when you **come across** a word you don't know, **looking** it **up** in a dictionary. **Keep at** it!

1. put out	_____
2. find out	_____
3. pay off	_____
4. knock out	_____
5. stick with	_____
6. fall behind	_____
7. mix up	_____
8. burn out	_____
9. come about	_____
10. end up	_____
11. figure out	_____
12. come up with	_____
13. stress out	_____
14. give up	_____
15. come down to	_____
16. brush up	_____
17. come across	_____
18. look up	_____
19. keep at	_____

Journal 9. About Identifying Text Genres

* Read the following parts of texts (given in the next page) that you will read in *NorthStar*. Even though they are the beginning parts of the texts, you will be able to identify what genres they are. If you want to, you can read the entire texts in the textbook. Read each part and answer the questions below.

1. Write down a genre of each text. What made you think so? Please specify it from the text.

(1) The Climate Train

_____
_____
_____

(2) Seasonal Affective Disorder

_____
_____
_____

(3) Will Indigenous Cultures Survive?

_____
_____
_____

2. Which one do you consider the easiest to read?

_____
_____
_____

Why do you think so?

_____
_____
_____

The Climate Train / By Jackson Kari (pp.147-148)

In December 1997, thousands of scientists and other interested people traveled to Kyoto for an international conference on climate and pollution. Months before the conference, most of these people began making airplane reservations. But one English scientist named Ben Matthews thought that flying to Kyoto didn't seem right. He thought, "Airplanes make a lot of pollution… Is it right to travel on airplanes so that we can talk about ways to make less pollution?" Ben believes that in order to make less pollution, all people—even scientists—need to change the way they live. He decided to set an example.

He began to plan a trip to Kyoto that made less pollution than an airplane trip. Other people soon joined him until there were 36 people from 14 countries ready to travel by land and sea to Kyoto. The group called itself "the Climate Train."

Planning the Climate Train trip was very complicated. Ben and his fellow travelers had to carefully choose a route, check schedules, buy tickets, and arrange overnight stays in some towns—all in many different languages. They also had to get visas for every country that they traveled through, even if they didn't stop there.

…

Seasonal Affective Disorder (SAD) (pp.167-168)

People who have Seasonal Affective Disorder (SAD) get depressed during the fall and winter. SAD seems to be much more common in some places than in others. For example, in the United States, less than 1 percent of the people in Florida, a southern state, have SAD, but 10-30 percent of the people in Alaska, a northern state, have it.

Symptoms

The symptoms of SAD are almost the same as the symptoms of depression. The biggest differences is that depression can happen at any time of year, but SAD happens at any time of year, but SAD happens only during the fall and winter months. SAD happens particularly in the far north and far south, where there is less light in the winter. The most common symptoms include:

- sleeping more than usual
- eating more than usual
- getting fatter or thinner quickly
- not having enough energy
- thinking about death
- not wanting to be with other people

…

Will Indigenous Cultures Survive? (pp.186-187)

In northern Columbia, a four-year-old Kogi Indian is carried high into the Sierra Nevada mountains. He will live in a small dark house for 18 years while he learns to be a holy man. In the Amazon, a Waorani hunter finds animals by following their smell. A Mazatec farmer in Mexico sends messages to other Mazatec by whistling across the wide valleys of his mountain homeland.

Stories about such people show us that there are many different ways of understanding the world and living life. The way we is just one way.

About 300 million people, or 5 percent of the world's population, are members of indigenous cultures. These cultures have deep roots in their histories, languages, and the places they live in. Sadly, their unique ways of living are disappearing because of the fast changes that are happening all around them.

Change is an important part of any living culture. In order to survive, a culture must adapt to some changes in its environment. Unfortunately, the changes that are happening today are so big and so fast that most indigenous cultures simply cannot adapt to them. For example, in Brazil, a gold rush brought sickness to the Yanomami ten years ago. Now one-quarter of them are dead. …

Journal 10. About the Self-evaluation of their Improvement and the Nature of the Class of This Study

1. Think about your English reading speed, compared with other classmates. Do you read faster than the others?

_____
_____
_____

(1) If yes, did the speed get faster than the beginning of this semester? What do you think helped you read faster than before?

_____
_____
_____

(2) If no, did the speed get slower than or the same to the beginning of this semester? What do you think is its reason?

_____
_____
_____

2. Do you think your English reading proficiency has improved, compared with the first week of this class?

_____
_____
_____

(1) If so, what made you think so? What has improved?

_____
_____
_____

(2) If not, what do you think is the reason why your reading proficiency has not improved?

_____
_____
_____

3. What made you take this English Reading class from among many other English classes?

_____
_____
_____

4. Have you ever taken English reading classes before?

_____
_____
_____

(1) Do you think this class is different from other reading classes?

_____
_____
_____

(2) If so, what do you think is different from other reading classes?

_____
_____
_____

(3) If not, what do you think is the same to other reading classes?

_____
_____
_____

5. What was the best or worst thing in this class?

_____
_____
_____

Appendix 5. Reading Comprehension Tests: Pre-test

[1-10] Fill in the blanks with a proper word.

crops	city	completely	convince	dependent on
donation	field	illegal	improve	increase
logger	native	raises	regular	stop

1. A secretary works in an office. A farmer works in a _____
2. The farmer _____ cows and sells their milk.
3. Farm animals are _____ the farmer. They need the farmer to give them food and water.
4. The farmer planted the _____ early in April.
5. If you study everyday, your English will _____ quickly. Your English will get better with study.
6. The garbage workers were _____ surprised when they found $18 million in the garbage.
7. The letter asked for a _____ of $10 or $25 to their organization.
8. Banana trees are _____ to Thailand.
9. The organization wants to _____ people not to buy ivory.
10. You cannot hunt elephants in national parks. It is _____ to hunt them.

[11-13] The following sentences describe how the Andersons clean. Complete the sentences.

11. They _____ their windows.
    a. bleach b. clean c. mop
12. They _____ the silver.
    a. polish b. mop c. bleach
13. They _____the tub and sink.
    a. mop b. scrub c. dust

[14-21] Read each sentence and choose the best word for the blank.

14. Mary does not have a job. She is _____.
    a. out of work b. hired c. satisfied
15. Mary sends her _____ to many companies.
    a. newspaper b. resume c. want ads
16. Mary can design web pages, speak three languages, and type very fast. She has many _____.
    a. skills b. careers c. rewards

17. Mary hopes that her next job will have many _____, including good health insurance.
    a. resume b. managers c. rewards
18. Mary doesn't need a big salary. She will be _____ interesting work and good benefits.
    a. unhappy with b. satisfied with c. afraid of
19. Living without sunlight can _____ depression.
    a. cause b. end c. treat
20. Extreme sadness and sleepiness are _____ of depression.
    a. emotions b. symptoms c. messages
21. Megan moved from the country to the city last year. She _____ on a farm. Now she lives in the city.
    a. used to live b. wanted to live c. is getting used to living

[22-25] Read the following text and answer the given questions. You must take the survey right after you read it.

Seasonal Affective Disorder (SAD)

People who have Seasonal Affective Disorder (SAD) get depressed during the fall and winter. SAD seems to be much more common in some places than in others. For example, in the United States, less than 1 percent of the people in Florida, a southern state, have SAD, but 10-30 percent of the people in Alaska, a northern state, have it.

Symptoms

The symptoms of SAD are almost the same as the symptoms of depression. The biggest difference is that depression can happen at any time of year, but SAD happens only during the fall and winter months. SAD happens particularly in the far north and far south, where there is less light in the winter. The most common symptoms include:

- sleeping more than usual
- eating more than usual
- getting fatter or thinner quickly
- not having enough energy
- thinking about death
- not wanting to be with other people

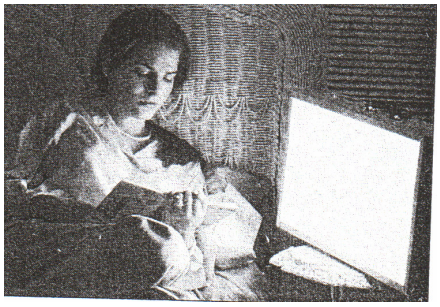
Causes

Doctors aren't exactly sure about what causes SAD, but they are beginning to understand it better. The cause of SAD might be emotional (for example, some people get depressed during the holidays because they miss their families); the cause might also be chemical. Scientists have found that some chemicals in our bodies are affected by bright outdoor light (more than 1,500 lux). Bright light causes our bodies to make more

of some chemicals and less of other chemicals. These chemicals affect our breathing, blood pressure, and body temperature.

Treatments

The three most common treatments for SAD are light therapy, psychotherapy, and drug therapy.



SAD patient undergoing light therapy

Light therapy is becoming the most common treatment for people with SAD. About 60-80 percent of people who have SAD can feel better if bright light reaches their eyes every day. The light should be brighter than 2,500 lux, and the person with SAD should be near it for one-half to three hours per day in the morning. To get this light, a person with SAD can take walks outside on bright mornings or sit near a special bright light. The light should reach the eyes, but it should not be too close or it might hurt the eyes. Light therapy is the most natural, cheapest treatment for SAD, but some people don't have the time it requires.

Psychotherapy with a professional psychiatrist or psychologist is another common treatment for SAD. In psychology, the patient talks about problems that he or she is having that might be causing the depression. Psychotherapy is probably the best treatment for emotional causes of SAD, but it can take a very long time, and it can be very expensive.

Certain kinds of drugs, called antidepressants, are also a common treatment for SAD. These drugs affect the chemicals in our brains. They make most people feel less depressed quickly, but many people can't take these drugs because they actually cause other problems, for example, stomach problems and sleeping problems.

NOTE: New research is showing that a different type of SAD can occur in the summer. Summer SAD is much less common than winter SAD. We don't know much about summer SAD yet, but we do know that the symptoms, causes, and treatments are different. For the latest information on summer SAD, ask your doctor. Currently, SAD refers to winter SAD as described above.

22. SAD is _____

a. feeling sad
b. suffering from depression in the winter or fall
c. being very tired all the time
d. a mental disease
e. what doctors suffer from.

23. The symptoms of SAD are _____
    f. like the symptoms of depression
    g. physically obvious
    h. not easily shown to others
    i. different for everyone
    j. like the symptoms of a cold

24. The causes of SAD _____
    k. should not be informed of the patients
    l. are 100 percent emotional
    m. might be emotional or chemical
    n. depend on where patients live
    o. are unknown

25. Treatments for SAD include _____
    p. light, psychotherapy, and drugs
    q. sleeping and exercising
    r. losing weight and eating healthier food
    s. eating favorite food
    t. drinking with family and friends

Appendix 6. Reading Comprehension Tests: Midterm Test

1. Find the incorrect sentence(s) and correct it(them) properly.
   (1) Marika worked for a big camera company for six years.
   (2) My friend in Boston.
   (3) He's tired.
   (4) Teaches mathematics to students at a good college in Massachusetts.
   (5) her didn't understand her decision.

2. Write a word that each phrase defines.
   (1) the world and everything in it which people have not made: _____
   (2) a piece of paper with your work and education history: _____
   (3) good things you get in return for work (such as money or health insurance): _____
   (4) to keep someone or something safe: _____

[3-4] Read the following introduction paragraph of a text and answer the given questions.

In the **September 2003 issue of your magazine**, you wrote that many farm kids wanted to live in the city. Well, I am a farm kid and I don't want to live in the city. In fact, I want to explain exactly why I think it's better to grow up on a farm than to grow up in the city.

3. Choose all that possibly follow this paragraph.
   (1) Farm kids have a greater sense of responsibility than most city kids.
   (2) Farm kids are healthier physically and emotionally than city kids.
   (3) Farm kids have a much better understanding of human life and death than city kids have.
   (4) Farm kids are too busy with farm work to enjoy themselves like a lot of city kids do.
   (5) Farm kids have a better understanding of nature than many city kids do.
   (6) Farm kids feel more bored than city kids because they can see only nature around them.

4. Among (1) ~ (6) of the question 3, find an example appropriate for the underlined part (September 2003 issue of your magazine).

_____

5. Read the following paragraph and write about what Megan Halley seemed to think about the farm where she used to live. Why do you think she felt that way?

Megan Halley, 13, spoke with excitement about her new school. She especially likes art and computer technology. "Back on the farm," she said, "the old phone system took five minutes or more just to dial up the Internet."

_____
_____
_____
_____

6. Find all the sentences that are grammatically incorrect.
(1) She used to make all her own bread when she was younger.
(2) In the city, people are used to wait in long lines at the bank or post office.
(3) Audrey is used to hate riding the crowded bus. Now it doesn't bother her.
(4) He uses his old coffeemaker every morning instead of the new electric one his daughter gave him for Christmas.

7. The following describes what a letter consists of. Answer the questions.

*The date is usually in the top of right corner of the paper.
(1) A word or phrase (like "All the best," "Best wishes," or "Yours truly") is followed by a comma.
What is this? _____
(2) A greeting to the person you are writing to—"Dear," the person's name, and a comma.
What is this? _____
(3) Your first name only for people you know; your full name for other people.
What is this? _____

[8-12] Read the following text and answer the given questions.

1	**<u>It</u>** was so quick and easy. A 14-year-old boy in Scottsdale, Arizona, pulled out a $50 bill and put it onto his school's new computer scanner. Then he printed ten copies of his $50 into $550, and he was ready to shop.
2	Twenty years ago only a few people had the skills or equipment to make counterfeit money. Computer, copier, and printer technology has improved so much that today almost anyone can "make" money. With the new technology there is a new kind of counterfeiter: casual counterfeiters. These counterfeiters are called casual because they don't have special skills and because they don't need to plan much.
3	The number of fake bills made by casual counterfeiters on their home or office computer is growing fast. In fact, this number has doubled every year since 1989! There is no way to completely prevent counterfeiting. However, the government has recently found a few ways to make casual counterfeiting more difficult than ever before.
(a)	The government must try many different ways to stop counterfeiting. The Bureau of Engraving and Printing needs to keep changing the way money is made because counterfeiters can learn to copy the changes. Today copiers can't copy microprinted words or color-changing ink. But, in a few years, **<u>who knows?</u>**
(b)	One way is to put very, very small words, called microprint, in hidden places on the bill. These words are only 6/1,000 inch. No one can read them without a magnifying glass, a special glass that makes things look bigger. And they are too small to come out clearly on a copier. If someone copies a bill that has microprint and you look at the copy through a magnifying glass, instead of microprinted words, you will see only black lines. Another way to prevent people from making counterfeit money on their

(c)	home computers is to use special color-changing ink that will look green from one angle and yellow from another. Home computers cannot use color-changing ink. So any copies from a home computer will have normal ink and can be noticed quite easily.
(d)	Additionally, money is made on special paper with very small pieces of red and blue silk mixed in. And on each bill there is a special line that runs from the top to the bottom of the bill. Suppose, for example, that you hold a $20 bill up to light. If you do this, you can see the line has words "USA twenty." The line turns red if you put it under a special (ultraviolet) light. This line and the special paper with red and blue silk are not easy for home computers to copy.

8. What is the introduction paragraph of the entire text above?
(1) 1 (2) 2 (3) 3 (4) 1 and 2 (5) None of them

9. Rearrange paragraphs (a) to (d) appropriately.
_____ → _____ → _____ → _____

10. What does the first word of the text "it" means?
_____

11. What does the author really want to say with the sentence in (a), "… who knows?"
_____

12. Based on the text above, write T if the given sentence is correct, and F, if it is wrong.
(1) _____ Most professional counterfeiters have special skills.
(2) _____ The government changes the way it makes money every few years.
(3) _____ The microprinted words will be copied as black lines with home computers.

(4) _____ The 14-year-old boy in Arizona must have been caught using the money.

13. Write what the underlined words refer to.
Grizzly bears are native to North America. In Alaska, there are still many wild grizzly bears. But there aren't many left in other parts of North America because people have killed so many of (a) **them**. Hunters kill bears because (b) **they** want the bears' fur and meat. Other people, such as farmers, kill bears because (c) **they** want to protect their farm animals and their families.
(a) _____ (b) _____ (c) _____

[14-15] Following is the conversation between Ms. Jewell and Michelle. Answer the given questions.

Ms. Jewell:	Hello?
Michelle:	Hi. My name is Michele. I'm calling from the Save the Elephants Fund. Do you have a minute?
Ms. Jewell:	Sure. Tell me again, who do you work for?
Michelle:	I work for Save the Elephants Fund. We try to save endangered elephants

	in many different countries. This year we're working in Thailand.
Ms. Jewell:	I thought there were a lot of elephants in Thailand. Why do you need to save the elephants there?
	_____
Michelle	

14. Where did this conversation take place? Why do you think so?

_____

_____

15. Write what Michelle would have said in the blank.

_____

_____

[16-18] Read the text and answer the given questions.

(1) Every year there are 4 percent fewer northern spotted owls in the forests of the Pacific Northwest of America. Today only 3,600 remain. Logging companies have been cutting down the redwood trees for wood. _____. Help us stop the logging companies.

(2) The town I live in was built on logging. In the early 1980s, we cut 86 million feet of wood each year. That is a lot of money for the town. This money kept our schools open and our local government running. But by 1992, we were cutting only 100,000 feet of wood a year. Why? Because people like you who just care about the owls stopped us from doing our jobs. You convinced the government to stop logging companies from cutting down so many trees. As a result, over 30,000 logging jobs have been lost. Some people have moved away to find work. Others stayed here and took jobs that pay half of what they made as loggers.

16. What explains the text best?
  (1) The writers are working to save the endangered animals.
  (2) They have different opinions about logging.
  (3) The first writer was angry about what the second writer wrote.
  (4) They are writing these letters to each other.
  (5) The government has to follow the first writer.
  (6) They have known each other for a long time.

17. What is the best in the blank?
  (1) The redwood trees are the owls' homes.
  (2) The redwood trees are used to stop the logging companies.
  (3) The redwood trees are endangered, so we have to help them.
  (4) The redwood trees are unique and special.

18. Write why each author wrote it.
  (1) Why? _____
  (2) Why? _____

19. Choose what is the best title of the following text.

One hundred years ago there were 100,000 wild tigers in the world. Today there are only between 5,000 and 7,000 tigers. Sometimes people kill tigers so that they can sell the tiger parts to people who make traditional medicines. Other tigers die because people cut down their forests to make room for farms. Friends of the Tiger wants to protect forests and stop people from killing tigers.

(1) Save a Logger – Eat a Tiger
(2) Save the humans!
(3) Heal the world.
(4) Stop people from killing tigers.
(5) Stop using traditional medicines made from the tiger parts.

Appendix 7. Reading Comprehension Tests: Final Test

[1-7] Choose the sentence where the underlined word is not appropriately written.

1. (1) She had the ability to adapt easily to new circumstances.
   (2) Analysts say that the move will have no negative affect on the company's profitability.
   (3) His ancestors came from Spain.
   (4) I appreciate this opportunity to join Davis Equipment as its Chief Operations Officer.
   (5) There is something artificial in his acting.

2. (1) These products don't contain peroxide or ammonia, which bleach the hair.
   (2) His land lot borders on the road.
   (3) It uses 50% less of our precious water than other brands use.
   (4) Thirty miles is too far to communicate to work every day.
   (5) The organization of the human body is very complicated.

3. (1) The men are backing the car up to the loading dock.
   (2) He's angry all the time, eats with his fingers, and is dust. He's an animal!
   (3) Are you sure it's all right to wash this skirt with regular detergent?
   (4) Spiders spin webs to catch insects.
   (5) The ferry service was expanded in response to complaints of island businesspeople.

4. (1) A bullet is bedded in the fresh.
   (2) It is believed the Incas worshiped holy mountains.
   (3) They really feel they are being excluded from the mainstream of society.
   (4) Gravity is a natural phenomenon.
   (5) There were too many students. The teacher organized them into three groups.

5. (1) Her car is very expensive. She hired three men to polish the car.
   (2) When my students see me, they always bow to me very politely.
   (3) The private key is secret and must be protected with a password.
   (4) All customers will receive a 50% discount on any of our luxurious rooms.
   (5) This microscope magnifies a subject up to eight hundred times.

6. (1) How did you survive the summer without an air conditioner?
   (2) A single dose of the new medicine is said to relieve symptoms for up to 72 hours.
   (3) Residents of the slum area found the taste of the leaking gas overpowering.
   (4) Each individual has a completely unique set of genetic information.
   (5) The mysterious disappearance of my brother upset everyone.

7. (1) Put aside what is urgent and take care of what should be done first.
   (2) The wall is overgrown with vines.
   (3) If I get back here by four o'clock with another one, can you still issue a visa today?
   (4) The plant was choked up with weeds.
   (5) The police winked at the offenders.

[8-14] Read the following items about “Netiquette” and choose a proper one for each sentence or email.

Netiquette Do’s

A. Keep your e-mails short. Separate your ideas into different paragraphs.
B. Check your message before you send it. Make sure it says what you wa nt it to say.
C. Check your spelling. There is no reason for poor spelling, even in e-mai l.
D. Fill in the subject for each e-mail.
E. Include your “signature” at the end of every message.

Netiquette Don’ts

F. Don’t use all capital letters. This is the same as SHOUTING.
G. Don’t send everyone a copy when you only want to send a message to o ne person.
H. Don’t send e-mails when you are angry or upset.
I. Don’t think e-mail is private.

8. _____ Never write something in an e-mail that you wouldn’t say in public.

9. _____ This helps people organize e-mails and find old ones. Also, if someone has hundreds of e-mails to read, he or she might not read one without a subject, just to save time.

10. _____ Remember that you are writing, not talking. For example, how can you show in writing that you are joking? One way is to use “emoticons.” These are pictures made with punctuation marks.

11. _____	12. _____	13. _____
To: open@company.com From: seeker@job.com Re: Information needed To whom it may concern, I’d like to apply for the opening position in your company. Could you please give me more detailed information about the position? Thank you.	To: mike@book.com From: tom@book.com Re: My book Mike! Do you have my book? I heard that you got it without my permission. I couldn’t take this final test because YOU stole it! Are you a thief? I think you are! Tom	To: lee@final.com From: joan@final.com Re: Final test Dear Kung-rang, I hav a question about this final test. Do we hav to write somthing in english? Sould we memoriz all the wards? Plaese give me sum hints. THanks. Best, Joan

14. Read the emails above and write the advice for the writers of 11~13 about their mistakes.

(1) To the writer of 11:

_____

_____

(2) To the writer of 12:

_____

_____

(3) To the writer of 13:

_____

_____

15. Group the words that have the same prefix in the blank. Write each prefix.

___place ___owners ___angle ___communicate ___able ___operate ___take ___happy

[16-17] Read the following text and answer the questions.

(a) People have less time for housework these days. They are lucky if they have time to wipe the crumbs off the table and put the breakfast dishes in the sink before they go to their jobs.

(b) Because people have less time, many kinds of chores, like polishing furniture, just don't get done anymore. Some people have studied changes in the use of cleaning products. From their studies, we can tell which chores aren't getting done. For example, one study looked at differences in the types of housework people did between 1986 and 1996. In just ten years, there were many changes.

(c) Some chores, like laundry, will never go away. In 1996, people used about the same amount of laundry detergent that they used in 1986. But polishing furniture seems to be less important than doing laundry. In 1986, 21 percent of homemakers used three or more cans of furniture polish in six months. By 1996, only 12 percent of homemakers used that much furniture polish.

16. Write T if the given explanation about the text is right, and F, if it is wrong.

(1) _____ It is more natural when the paragraphs are rearranged to (c)→(a)→(b).

(2) _____ The topic of the text is the change of housework by time.

(3) _____ The amount of furniture polish in 1986 was more than that in 1996.

(4) _____ There was a big change in the kinds of housework between 1986 and 1996.

17. What is the best reason for the underlined sentence.

(1) Clothing is more important than furniture.

(2) Since 1996, furniture that doesn't need polish has been produced.

(3) The amount of furniture polish decreased more than that of detergent.

(4) We had to clean more carefully because of the pollution caused by industry development.

(5) Detergent has not been researched as much as furniture polish.

[18-20] Read the following email and answer the given questions.

Dear Mr. Green:
Lately I see more and more "organic" fruits and vegetables in the supermarkets. I'm confused. Often the organic apples or strawberries aren't as red or as large as the regular ones. They sometimes have spots or insect holes. Also, organic produce can cost three times as much as regular produce! So tell me, what exactly are organic fruits and vegetables? And why are they so expensive?

Confused Shopper

18. Why did Confused Shopper write this email?

_____
_____

19. Based on the answer of 18, find all, from the emails 11 to 13, that was written for the same purpose to the email by Confused Shopper.

_____
_____

20. How do you think Mr. Green answered the Confused Shopper?
(1) Organic fruits and vegetables are ripened with chemicals, which are expensive.
(2) Organic produce has to arrive at a store quickly.
(3) Organic produce also looks as nice as regular produce.
(4) With chemicals, farmers can grow more produce on the same amount of land.
(5) Herbicides kill insects on organic fruits.

[21-22] Read the following text and answer the given questions.

There are many different ways of understanding the world and living life. (a)<u>The way we live is just one way.</u>

About 300 million people, or 5 percent of the world's population, are members of indigenous cultures. These cultures have deep roots in their histories, languages, and the places they live in. Sadly, their unique ways of living are disappearing because of the fast changes that are happening all around them.

Change is an important part of any living culture. In order to survive, a culture must adapt to some changes in its environment. Unfortunately, the changes that are happening today are so big and so fast that most indigenous cultures simply cannot adapt to them. For example, in Brazil, a gold rush brought sickness to the Yanomami ten years ago. Now one-quarter of them are dead. In Nigeria, the Ogoni homeland near the Niger River is full of poisons from oil companies. Now the Ogoni can no longer grow food there. And in India, over 250,000 indigenous people have to leave their homes in the Narmada River valley, because the government wants to build several dams on the Narmada River.

…

There are no easy ways to save indigenous cultures, but one thing is certain: If the last indigenous cultures are going to survive, they must adapt, and they must choose how they will adapt, as the Ariaal are trying to do. The big question is: (b)<u>Will the rest of the world let them?</u>

21. What does the underlined sentence (a) mean?

_____

_____

22. What would be the answer of (b)? Why do you think so? Give an example in the text.

_____

_____

23. Based on the following examples, write an appropriate general statement (GS).

(1) People with SAD may get fatter or thinner quickly just like the depressed.

(2) People with SAD can sleep more than usual as the depressed can.

(3) People with SAD may think about death as much as the depressed.

GS:

_____

_____

24. "The Climate Train" was about those who went to Japan by land and sea in order to make less pollution than traveling by airplane. It took almost one month for them to get to Japan. If you were them, what would you do? Would you participate in the "Climate Train"? Please write your own answer logically **in English**.

Appendix 8. SI1. English Reading Strategy 1: Predicting

1. What is Predicting?
   - Making predictions of what the text will be about, before reading.
2. Why should Predicting be used?
   - It helps you focus on the text with checking whether your predictions were correct.
   - It helps you remember better what you read both when the predictions were correct and when they were not.
3. How can Predicting be used?
   - Skimming the structure of a text (title, subtitles, etc.) / Skimming repeated words / Skimming outstanding characters (bold, italic, etc.) / Skimming graphs or pictures.
   - Predicting and monitoring with a graphic organizer (table).

	What you used to make predictions	Predictions before reading	Monitoring after reading	Correct?
Ex.	Title: Marriage Subtitles: Should we get married? / Checklist before marriage	It will be about advantages and disadvantages of marriage for those who will get married.	It describes the advantages and disadvantages of marriage, but it was written for those who will get divorced, not married.	Δ
Text				
P1				
P2				
P3				
P4				
P5				
P6				
P7				

4. When and where should Predicting be used?
   - Before reading a text or before reading a paragraph (it is always good to check whether your predictions are correct).
5. How should the use of Predicting be evaluated?
   - Making correct predictions is based on your reading ability. By checking your predictions after reading using the table above, your predicting ability will improve.

* Before you read this text thoroughly, skim through it to make predictions of what the text will be about. Complete the table in the first page.

Finding the Ideal Job

1 You are out of work.
You hate your job.
You aren't satisfied with your career.
You are looking for your first job. Where do you start?

2 If you are like most Americans, you'll probably send your resume to a lot of companies. You might answer newspaper want ads every Sunday. Or you might go to employment agencies. But experts say you won't have much luck. People find jobs only five to fifteen percent of the time when they use these methods. So, what can you do?

3 One thing you can do is read Richard Bolles's *What Color Is Your Parachute*? Bolles is an expert in the field of job hunting. He has helped thousands of people find jobs and careers. This book is different from other job-hunting manuals. Bolles doesn't help you to find just another job. Instead, he helps you find your ideal job: a job that fits who you are, a job that is satisfying to you. What kind of job is ideal for you? If you don't know the answer, Bolles says, you can't find your ideal job. You need to have a clear piture in yhour mind of the job you want. The book has many exercises to help you draw this picture.

4 Bolles says that you must think about three things:
(1) Your skills. What do you like to do? What do you do well? Do you like talking? Helping people? Teaching? Reading and writing? Using computers? Working with your hands? Bolles asks you to think about all your skills, not only "work skills." For example, a mother of four children is probably good at managing people (children!). She may be a good manager.
(2) Job setting. Where do you like to work? Do you like to work outside? At home? In an office? Alone or with others? What kind of people do you like to work with?
(3) Job rewards. How much money do you need? How much money do you want? What else do you want from a job? What would make you feel good about a job?

5 After Bolles helps you decide on your ideal job, he gives you specific advice on how to find the job. His exercises teach you how to find companies and how to introduce yourself. The chapter on job interviews is full of useful information and suggestions. For example, most people go to interviews asking themselves the question, "How do I get the company to hire me?" Bolles thinks this is the wrong question. Instead, he wants you to ask yourself, "Do I really want to work for this company?"

6 There are two small problems with the book. First, Bolles writes too much! He explains some of his ideas over and over again. Second, there is no space to write the answers to the exercises. But these are small problems *What Color Is Your Parachute?* is the best job-hunting manual available today.

7 *What Color Is Your Parachute?* was written in 1970. But the information is updated every year. So, if you are looking for a job, or if you have a job but want a new one, remember: Don't just send out copies of your resume. Don't just answer want ads. And don't wait for friends to get you a job. Instead, buy this book and do a job hunt the right way.

Barbara Kleppinger

Appendix 9. P1. Practicing Predicting

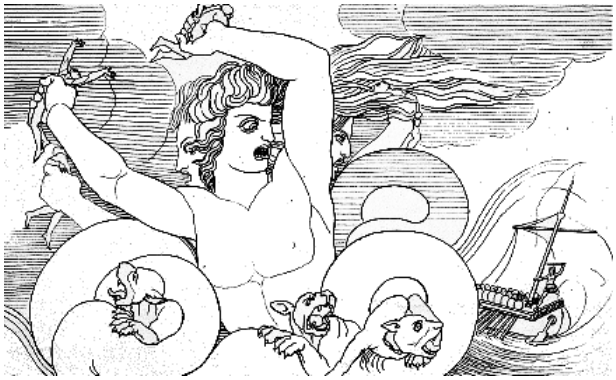
- Misunderstanding 1. Predicting usually happens before reading to activate your prior knowledge about the given text. Checking whether your predictions were right after reading is important, but it is NOT the main activity of Predicting. You should not suffer from evaluating your predictions with reading the test over and over.
- Misunderstanding 2. Please don't brood over what the text will be. You can/should make predictions by skimming a text. When you make proper predictions about the text with skimming it, you will be able to distinguish what to read attentively from what to skip while reading. This will save you time when you get used to Predicting, not wasting your time even before reading.
- Misunderstanding 3. It is not required to complete the graphic organizer for Predicting, which was given in the SI sheet. Don't worry about filling in the table. You can make predictions in your mind without writing. Writing itself should not waste your time.

* Please read the following text with using Predicting Please put a red post-it flag on the parts (e.g., word, phrase, and picture) that you used to make predictions before reading the text. Then complete the table and answer the questions.

Between the Devil and the Deep Blue Sea

In Alaska there is a small village named Chicken, and also in Alaska there is a small bird named the ptarmigan. Inhabitants of Chicken like to say that initially they wanted to name their village for the bird. But there was a problem: few could spell the word or pronounce it. So they gave up on Ptarmigan and settled for Chicken. Something similar apparently happened with the expression between *the devil and the deep blue sea*. Originally it was between *Scylla and Charybdis*.

The story is from the legends of primitive Greece. Somewhere around the Peloponnesian peninsula, between towering stone cliffs, there was a narrow strip of water through which mariners often sailed. On one side was a powerful whirlpool capable of swallowing the strongest ships; this dark vortex was



called *Charybdis*. On the other side was a huge cave in which lived the hideous monster Scylla, who had six heads, each at the end of a long serpentine neck. Scylla had a voracious appetite and of course six months for eating. Many sailors who were not swallowed by the whirlpool were eaten by Scylla. Odysseus once undertook this perilous passage and lost six of his men.

Figuratively speaking, in our ongoing life, we are sometimes caught between Scylla and Charybdis, that is, between difficult alternatives. It would seem almost inevitable that *between Scylla and Charybdis* would become a way of indicating this dilemma, and so it did. Almost inevitably, too, these difficult words would translate into something easier to say and understand, and so they did: *Scylla* became *the devil* and *Charybdis* became *the deep blue sea*. And there we have it, a phrase we often use. We frequently say it or hear it said: "In this predicament, I am caught *between the devil and the deep blue sea*."

Mann, L. (2006). *Green-eyed monsters and good Samaritans*. New York: McGraw-Hill.

	What you used to make predictions	Predictions before reading	Monitoring after reading	Correct?
Entire Text				
Paragraph 1				
Paragraph 2				
Paragraph 3				

1. What is the meaning of the expression, "*between the devil and the deep blue sea"?*
   _____
   _____
   _____
2. In what situations is the expression used?
   _____
   _____
   _____
3. What is a similar expression in Korean?
   _____
   _____
   _____

Appendix 10. SI2. English Reading Strategy 2: Making Inferences 1

1. What is Making Inferences?
- Making Inferences using the given facts or your prior background knowledge.

2. Why should Making Inferences be used?
- Authors do not describe every little detail, so we should make inferences to read between the lines. To understand what the words or sentences mean by connecting what is written in the text and what you already know.
- Example in daily lives: "Isn't it too hot here?" → [Students will understand that the teacher asked them to open a window.]

3. How can Making Inferences be used?
- Finding what a pronoun refers to (e.g.: Mary had a crush on Tom, but his brother asked her out. → his = Tom; her=Mary).
- Making guesses of a new word using the context (e.g.: Her son died due to the terrible fire. She didn't cry even at her son's funeral. → Because "a funeral" comes right after "died", it can be inferred to mean something related to "death.") (e.g.: antidepressant. → anti- = opposite; depress=feeling sad; -ant=not a verb)
- Understanding the author's intention or purpose (e.g.: She didn't cry even at her son's funeral. → The author may want to describe her strong personality by giving the description, "not cry", instead of mentioning, "She is a strong woman.")
- Connecting what is written and what I already know (e.g.: She didn't cry even at her son's funeral. → You already know that people usually cry at an important person's funeral, so "her not crying at her son's funeral" means that she is somewhat different.)

4. When and where should Making Inferences be used?
- While reading.
- When running into a new word or expression, Making Inferences help you read through without looking up every new word.

5. How should the use of Making Inferences be evaluated?
- By reading the sentences before and after the parts you made inferences about (e.g.: You should check whether it meant "she is strong enough not to cry at her son's death" or "she and her son do not have a good relationship").
- Mark the words you made inferences about, and after reading to the end, look up the words to check whether your inferences were correct.

Appendix 11. P2. Practice of Making Inferences 1

*Please try to use the strategies that you learned. Put a **red tag** on the parts you used for **Predicting**, and a yellow tag for Making Inferences. Here is the example:

MAKING MONEY

By Amelia Laidlaw

It was so quick and easy. A 14-year-old boy in Scottsdale, Arizona, pulled out a $50 bill and put it onto his school's new computer scanner. Then he printed ten copies of his $50 bill on a color copier. Within seconds he changed $50 into $550, and he was ready to shop.

Twenty years ago only a few people had the skills or equipment to make counterfeit money. Computer, copier, and printer technology has improved so much that today almost anyone can "make" money…

*Place tags yourself while reading the following text!

CASTE

Caste refers to ranked groups based on heredity within rigid systems of social stratification, especially those that constitute Hindu India. Some scholars, in fact, deny that true caste systems are found outside India. The caste is a closed group whose members are severely restricted in their choice of occupation and degree of social participation. Marriage outside the caste is prohibited. Social status is determined by the caste of one's birth and may only

Appendix 12. SI3. English Reading Strategy 2: Making Inferences 2

An inference is a guess you make after thinking about what you already know. For example, suppose you plan to go the beach. From what you know about beaches, you might infer that the beach is covered with sand and the sun is shining.

An author does not write every detail in a story. If every detail were included, stories would be long and boring, and the main point would be lost. As you read, the writer expects you to fill in missing details from your own experiences or your background knowledge.

*Read the following short text about King Midas. If a given statement in the table is explicitly written in the text, mark it as Fact. If it is an inference based on the fact written in the text, mark it as Inference. If it is a false statement, mark it as False.

In Greek legends King Midas loved gold and wealth. For an act of friendship, Midas received a wish. Midas wished that everything he touched would turn to gold. The king was granted his wish, but he soon realized he had made a serous mistake when even his food and drink turned to gold.

Fact	Inference	False	
			King Midas loved gold.
			Everything Midas touched turned to gold.
			King Midas was greedy.
			The king didn't like his golden touch.
			The king's wish did not come true.

Appendix 13. P3. Practice of Making Inferences 2

* Read the text from NorthStar (pp.61-62) with using the strategies that you learned. Put a **red tag** on the parts you used for **Predicting**, and a yellow tag for Making Inferences. If a given statement in the table is true, specify it as either Fact or Inference. If it is not, mark it as False (including the questions in p.63).

Dear Friend of SAVE THE ELEPHNATS FUND,

Thank you for your generous donation last year. Your money helped us to open a new wildlife park in Kenya as part of our work to help protect the 500,000 elephants left in Africa.

Unfortunately, elephants are endangered in other parts of the world, too, and we need your help again. This time we need you to help us in Thailand.

One hundred years ago, millions of wild elephants lived in Asia. Today there are only 30,000 Asian elephants. The situation in Thailand is especially serous. Thailand now has only 1,800 to 2,000 elephants. Experts believe that by the year 2010, elephants in Thailand will be extinct.

Why are elephants in Thailand endangered?

- They don't have enough food to eat.
  Paper companies cut down banana trees and bamboo. These plants are native to Thailand, and they are eaten by elephants. The companies plant eucalyptus tress instead. The eucalyptus trees grow fast, and the companies use their wood for boxes and other paper products. The paper companies make a lot of money from the eucalyptus trees. But what about the elephants? They need 150 to 300 kilograms of food every day, and they can't eat eucalyptus trees!
- Hunters kill hundreds of wild elephants every year.
  Hunting elephants is not legal in Thailand, but many hunters kill these animals anyway. These illegal hunters make a lot of money from selling elephant tusks. The only way to get the tusk off the elephant is to kill the animal. The hunters sell the tusks to people who make furniture, jewelry, and art from the ivory in the tusks.

What can we do?

With your help and donation, this year we will:

- teach companies in Thailand about trees that are good for business and good for elephants.
- pay for game wardens to protect the elephants from illegal hunting
- convince people around the world not to buy things made of ivory
- help hunters to find other ways to make money

Last year you helped Kenya's elephants. This year Thailand's elephants need your help. Please send your donation today.

Thank you.

Fact	Inference	False	
			Last year Save the Elephant Fund used donations to open a wildlife park in Kenya.
			Friends of the Save the Elephant Fund donated a lot last year.
			If we protected Asian elephants, there would be more than 2,000 elephants in Thailand now.
			There are more than 2,000 wild elephants in Thailand now.
			By the year 2010, elephants in Thailand will be extinct.
			Paper companies preferred eucalyptus trees to banana trees.
			Elephants can't eat eucalyptus trees.
			Save the Elephants Fund wants the paper companies to leave Thailand.
			Making furniture, jewelry, and art from the ivory makes hunters kill elephants.
			Hunters have to kill elephants to get the tusks off.
			In Thailand, it is illegal to hunt elephants.
			Thailand's elephants are endangered because of hunters and lack of food.

Appendix 14. SI4. English Reading Strategy 2: Making Inferences 3

*We practiced how to distinguish among facts, inferences, and false statements after reading an entire text (Fact: what the author wrote explicitly; Inference: what you figured out based on the given information in the text)
*Now, let's guess the meaning of a new word using the context. You cannot look up every new word, so it is necessary for you to infer the meaning of a new word from the context.

Example: Try to infer the meaning of an underlined word from the context.

Scientists are very concerned about **famine** in many parts of the world today. Thousands of people are starving because they cannot grow enough crops. Lack of rain and poor farming methods sometimes cause the problem. Often the problem is that there are too many people for the land to support.

Clue 1. Thousands of people are starving.
Clue 2. Cannot grow enough crops.
Clue 3. Lack of rain.
Clue 4. Too many people.

1. The killer whale deserves its name in the wild. There it destroys dolphins, birds, and fish. However, a captured killer whale is **meek** and friendly to people.
(1) necessary (2) quietly obedient
(3) mean (4) easily discouraged

2. The mummies of Egypt are very old, so people assume the Egyptians had special ways of **embalming**. Actually it was the dry air that helped preserve their dead.
(1) making pyramids (2) keeping things alive
(3) preventing decay (4) dealing with heat

3. Some people think that W.C. Fields's **epitaph** reads: "I would rather be in Philadelphia." This is not true. The funny actor's tombstone says: "W.C. Fields, 1880-1946."
(1) dying words (2) most famous joke
(3) last telegram (4) words on a grave marker

Appendix 15. Vocabulary Quiz

*Fill in the blanks using a proper word.

adapt, ascent, axe, dam, deceives, destroyed diagonally, environment, goal, holy, mainstream nomadic, plant, rhythm, ridges, roots sensation, steep, survive, unique

Louisa and Anna planned to climb Mount McKinley, the highest mountain in North America. Their (1)_____ was to reach the top. The (2)_____ is difficult and dangerous. From the bottom, Mount McKinley (3)_____ you. It doesn't look as large as it is.

There is one part of the mountain that is extremely hard to climb up. It is so (4)_____ that climbers must use ropes in case they fall. There are also long and narrow (5)_____. Louisa and Anna had to walk carefully so they wouldn't fall off either side.

To climb the mountain, the women carried a(n) (6)_____ to cut into the ice. The sound of their feet hitting the ground as they climbed created a (7)_____ which kept them moving quickly. Parts of the ascent were too difficult to climb straight up so they climbed (8)_____. As they climbed up a rocky area they had to (9)_____ each foot very carefully before putting their weight in that position. They felt a great (10)_____ when they finally reached the top of the mountain. They felt proud, strong, and very tired.

Appendix 16. SI5. English Reading Strategy 3: Summarizing

1. What is Summarizing?
- Giving only the main points of something, not the details, using a short statement (or images and tables).

2. Why should Summarizing be used?
- When you read a text again, a summary will help you retrieve information about the text, which will improve your understanding.
- You can understand the text only by reading the summary, unless you are looking for a detail.

3. How can Summarizing be used?
- Summarizing each paragraph briefly on the left or right margin.
- Summarizing an entire text comprehensively in 2-3 sentences after reading all.
- Picturing an image of the content of a text.
- Summarizing using a graphic organizer.

4. When and where should Summarizing be used?
- While reading.
- After reading.

5. How should the use of Summarizing be evaluated?
- By rewriting a text with the summary. If the text is similar to the original one, then you summarized it well.

* Students tend to confuse Summarizing with Translating. Please read each text and summarize it only in 1-2 sentence(s), not translating it. In addition, try to summarize the first text in English, and the second one in Korean. Think about which language is better for you to summarize the text effectively. Then summarize the third one in the language you prefer.

*Read and summarize in 1-2 English sentence(s). Dear Debbie, Help! Last week, I received an e-mail message from my best friend at work. It was a general message about the holiday party sent to the whole company. I wrote back to my friend saying that I wasn't going to the party. Then, I went on to tell her how much I hated working at this company. I told her how I thought my other co-workers were stupid and boring. I explained how I thought our boss was not nice and treated us all badly. I meant to hit the REPLY button to send my friend the e-mail. Instead, I hit the REPLY ALL button which sent the message to my best friend, all ten co-workers, and my boss!	

Everything I wrote in the e-mail is true. But I would never say those things to my boss or other co-workers. I was so embarrassed; I took a few days off from work pretending to be sick. I just couldn't face all these people. But I have to go back to work soon. What do I say to them? *Embarrassed in Emeryville*	
*Read and summarize in 1-2 Korean sentence(s). Dear Debbie, What can I do? Recently, a longtime friend made me very upset. We live far apart, so I wanted to write a very organized, thoughtful e-mail explaining how I felt. I planned to write two drafts of the e-mail. In my first draft, I just wrote everything I was feeling. I was very angry, and at that moment, I felt that everything about her and our friendship was wrong. I wrote all this in the message. I then saved the e-mail and went on to other things, planning to rewrite it later, when I was less upset. You can see what's coming. Somehow, when working on another e-mail, I clicked SEND and accidentally sent this first draft of the e-mail to my friend. Of course, she is now so angry. She thinks I'm a terrible friend to send such a message to her. What can I say to her? *Sorry in Cincinnati*	
*Think about which language is better for you to summarize the text effectively. Then summarize the third one in a language you prefer. Dear Debbie, My wife and I are having an argument. We share a computer and the other day she was looking in the "trash" for an old file she had thrown out. While she was looking around for her lost file, she found all these old e-mails of mine sent to an ex-girlfriend. You see, my wife is not happy about me keeping in touch with this old girlfriend. So, I've been secretly e-mailing her for years. It's nothing really. But because I know it would make my wife mad, I've been careful to delete the messages. Well, I thought I was deleting the messages. I guess they were just sent to the "trash." I didn't know I had to "empty the trash" to really get rid of them. Anyway, my wife read them and is now really mad at me. She says I should apologize for writing to my ex-girlfriend. I say I haven't done anything wrong. In fact, I think she should apologize for reading e-mails not sent to her. Who's right? *Mad in Miami*	

Appendix 17. SI6. English Reading Strategy 4: Finding Patterns (s+v)

* While reading the following text, put a yellow-green tag on the verb in each sentence, and a purple tag on its subject.

You are hereby summoned to appear for petit jury service for a term of not more than one trial. Furnishing any information about race, religion, or national origin is not required to qualify for jury service. Any person who willfully misrepresents a material fact on a juror qualification form for the purpose of avoiding or receiving service as a juror qualification may be fined not more than $500 or imprisoned not more than (30) thirty days or both. Any person failing to fill out a juror qualification form without good cause may be fined not more than $100 or imprisoned not more than (3) days or both.

1. What is Finding Patterns?
- On a more micro level than previous strategies, identifying a verb and its subject for each sentence.

2. Why should Finding Patterns be used?
- After having a grasp of the topic of a text, when you read sentence by sentence, finding a verb and its subject easily will help you understand a sentence correctly, no matter how complicated the sentence is.
- Unlike Korean sentences, an English sentence must have a subject and a verb. Finding these is very important to understand an English sentence.

3. How can Finding Patterns be used?
- You must find a verb first.
- Distinguish the verb in a sentence from a verb transformed into a noun or an adjective.
- After finding a verb, look in front of the verb to find its subject. Except for questions, a subject is placed in front of its verb.

Example: As soon as the necessary equipment ordered last month arrives at the plant, Mobis Industries will begin production of its new line.

In addition, sales of our single engine Mini Turbo planes doubled, thanks to Mr. Weiss' efforts.

4. When and where should Finding Patterns be used?
- While reading, especially when you read an important sentence, like a topic sentence, or when you read a complex sentence with conjunctions.

5. How should the use of Finding Patterns be evaluated?
- By checking whether a verb and its subject match and whether all the necessary grammatical components that the verb needs are present.

* NOTE: Even with this stress on identifying grammar, it is important to note that if you worry too much about grammar, you may not understand the topic of an entire text.

Appendix 18. P5. Practice of Finding Patterns (s+v)

* While reading the following text, put a yellow-green tag on a verb of each sentence, and a purple tag on its subject.

In 1968 a company called Bolt Beranek and Newman (BBN) was hired by the United States Defense Department to build Arpanet. Arpanet later became what we now call the Internet. In 1971, while working for BBN, an engineer named Ray Tomlinson developed the first system for sending e-mail between computers. In a recent interview, Ray Tomlinson wrote about his own experience with e-mail. (p.88)

Appendix 19. SI7. English Reading Strategy 5: Clarifying

1. What is Clarifying?
- To make clear what you can't understand, reading it aloud or repeatedly, or reading from the previous sentences.

2. Why should Clarifying be used?
- To make an effort to understand important parts without getting help from others or dictionaries.
- To give yourself another chance to understand those parts before getting help from others or dictionaries

3. How can Clarifying be used?
- When you can't understand something, read it aloud until it becomes clear.
- When you can't understand something, read it repeatedly until you can understand.
- When you can't understand something, read from the previous sentences.

4. When and where should Clarifying be used?
- While reading (and when you face confusing or incomprehensible sentences or expressions).

5. How should the use of Clarifying be evaluated?
- By checking your understanding (from reading aloud or repeatedly, or reading from the previous sentences) whether it conforms to the topic sentence or whether it doesn't contradict the following sentences.
- By checking its grammar with your background knowledge.

* Read the following text. Without looking up words you don't know, try to understand the underlined sentences. Remember! Read the underlined sentences aloud or repeatedly, or reading from their preceding sentences, to understand them.

Tantalize

Most of us sometimes want what we cannot have, but this is really not a big problem for us. The problem is greater if what we want is barely beyond reach and just hangs there seemingly forever. The problem is greater still if every time we can extend our reach a little the thing we want moves another inch away. It's worse yet if the thing was deliberately put there by someone else. For this cruel torment there is a name: *tantalize*.

This diabolical device for creating misery was invented and first used long ago by the Olympian gods. They were displeased with a fellow named Tantalus. At

first they thought him quite acceptable and welcomed him into their company. After all, he was himself a sort of demigod.

Soon, though, the gods were convinced that Tantalus fraternized too freely with humans, that he even divulged to them the secrets of the gods. They discovered that on one occasion he had killed his own son, cooked the flesh, and served it at a banquet to see if they knew what they were eating.

Since the gods resented being tested in such a way, they decided to sentence Tantalus to the worse possible punishment. Although they banished him to the underworld, this was not enough. In addition, they devised a devilish scheme to compound his agony. He was forced to stand forever in water up to his neck under a tree that bore luscious fruit. But whenever he reached for fruit, the tree's limb would spring away. Thus, in the presence of water Tantalus was always thirsty and in the presence of food always hungry.

Logically, when his fiancée kept postponing the marriage date, John asked pleasantly, "How long will you tantalize me?"

Appendix 20. P6. Practice of Clarifying

* **Without looking up a word in a dictionary**, with using only Clarifying (i.e., reading aloud, reading repeatedly, or reading from the previous sentences), write the meaning of the underlined sentence.

Since the gods resented being tested in such a way, they decided to sentence Tantalus to the worse possible punishment. Although they banished him to the underworld, this was not enough. In addition, they devised a devilish scheme to compound his agony. He was forced to stand forever in water up to his neck under a tree that bore luscious fruit. But whenever he reached for fruit, the tree's limb would spring away. Thus, in the presence of water Tantalus was always thirsty and in the presence of food always hungry.

Meaning:

_____

_____

1. Was Clarifying useful to understand the underlined sentences?

   No Yes

   Why do you think so?

   _____

   _____

   _____

Appendix 21. SI. English Reading Strategy: Grouping

1. What is Grouping?
- Remembering (memorizing) words or expressions after grouping them by common characteristics.

2. Why should Grouping be used?
- Maximizing our information processing: Psychology proves that we process and store information by chunks, not by separate item. Accordingly, chunking words or expressions is more effective to remember them.
- Magic number 7 (7±2).

3. How can Grouping be used?
- Finding out what the words share in common semantically (e.g., clothing: jeans, jackets, coat / cleaning: polish, detergent, bleach, mop).
- Fining out what the words share in common grammatically (e.g., verb: decide, think, encourage / adjective: friendly, nice, separate.
- Finding out common prefixes and suffixes (e.g., mis-: misunderstand, misuse, misplace / -ist: scientist, physicist).
- Grouping based on your personal reasons (e.g., POEM: planning, organizing, evaluating, monitoring).

4. When and where should Grouping be used?
- Usually after reading (to remember better).

5. How should the use of Grouping be evaluated?
- By checking whether you think of the meaning of the words or expressions later when necessary.

*Group the given words into proper categories. Please list the words under each category.

a cold, AIDS, ants, apples, broccoli, cancer, feel, files, flowers, herbicides, lettuce, mosquitoes, oranges, pesticides, see, smell, taste, the flu, trees, vegetables, weeds

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