Investigating Chinese English Majors' Use of Reading Strategies

A Study on the Relationship between Reading Strategies and Reading Achievements

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Abstract

For several decades, reading strategies have aroused many researchers' interest. Reading is a very important language skill for English learners; however, many English majors feel that their reading proficiency is far from satisfying though they have studied English for more than ten years. Therefore, the current situation of using reading strategies among Chinese sophomore English majors is studied in this paper. The research aims to study the relationship between the use of reading strategies and the students' reading achievements. The reading comprehension part of TEM 4 (2006) and two questionnaires are adopted in this study to collect data from the investigated students. The participants are 54 English major sophomores from a university in China. The major findings of this study are: English majors use reading strategies in medium level when doing reading comprehension tests. Both metacognitive and cognitive reading strategies significantly correlate with reading achievements and both of them play important roles in reading comprehension. There are differences in the application of reading strategies between high-proficiency readers and low-proficiency readers. Teachers do not pay high attention to instructing reading strategies in the classroom, so some pedagogical implications on the teaching of reading strategies are suggested.

Key words: metacognitive reading strategies; cognitive reading strategies; reading achievements

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1. Introduction

Reading, as one of the four basic skills in language learning and teaching, is very important not only as a language skill but also as language input for other skills to develop. Actually, many learners feel that they cannot effectively comprehend what they read. One major reason accounting for this phenomenon is that learners have not mastered and applied effective reading strategies.

Reading strategies refer to "the mental operations involved when readers purposefully approach a text and make sense of what they read" (Barnett, 1988: 66). According to Baker and Brown (1984), reading strategies contain cognitive and metacognitive strategies in reading. Cognitive strategies are conscious ways in dealing with learning, such as resourcing, deduction, grouping, note-taking, translation and elaboration. Metacognitive strategies are used to monitor or regulate cognitive strategies, which include checking the outcome of any attempt to solve a problem, planning one's next move, monitoring the effectiveness of any attempted action, revising, and evaluating one's strategies for learning. Researchers began to study reading strategies in the middle of the 1970s and paid much attention to understand what proficient, skilled readers typically do while reading. Researchers especially focus on identifying the strategies used by high-proficiency readers. Garmer (1985) says that this kind of research has been useful to instruct non-proficient first as well as second language learners to increase their awareness of using reading strategies and then improve their reading comprehension proficiency.

As for Chinese English majors, reading proficiency is very important to them. However, a large number of sophomores still feel that their reading proficiency is not satisfying after many years of English study at school. Therefore, this essay mainly focuses on investigating the use of reading strategies by second-year English majors and attempts to find out which reading strategies are beneficial to English learners' reading comprehension proficiency. The study hopes to help the students develop effective reading strategies and to improve their reading proficiency. It is also expected to help instructors develop appropriate methodologies in teaching English reading.

1.1 Aim

The present study attempts to study the current situation of using reading strategies among Chinese English major sophomores. To be more specific, this study aims to investigate the frequency of different kinds of reading strategies adopted by sophomore English majors and to study the correlation between the adoption of reading strategies and the students' reading achievements. This study will also examine the differences in reading strategy use between high-proficiency readers and low-proficiency readers.

1.2 Material and Method

In this study, two separate questionnaires, one for students and one for teachers, as well as the reading comprehension test selected from TEM 4 (2006) will be included.

1.2.1Participants

The participants in this study are 54 English major sophomores from a university located in the south-east of China. They are from two classes. There are 45 females and 9 males in total. These students have taken similar English courses at the university. All of them are native speakers of Chinese and have learned English for more than ten years since primary school. In general, according to the author's personal experience, it can be assumed that these participants have acquired some reading strategies. Their age ranges from 20 to 23. They are about to take the TEM 4 (2011) test on June, 2011 and have not been involved in the TEM 4 (2006) reading comprehension test. Among these participants, twelve who score above 14 in the reading test are classified as the high reading achievement group and another thirteen students who score below 9 are regarded as the low reading achievement group.

In addition, six English teachers from the same university who are teaching comprehensive English courses for English majors will also be investigated. All of them have taught comprehensive English courses for more than seven years. They are invited to participate in doing the questionnaire for teachers and the purpose is to see whether English teachers in college have the awareness of teaching reading strategies to their students and what their attitudes or opinions are toward reading strategies. The following table is the background information of the six teachers.

Table 1 : Background information of the six teachers

Teachers	Gender	Teaching experience
1	Female	12
2	Female	7
3	Male	8
4	Female	13
5	Male	10
6	Female	13

1.2.2 Reading comprehension test

In order to measure sophomore English majors' reading proficiency, a reading test is administered to the participants. The reading comprehension test used in the present study is chosen from model tests of TEM 4 (2006). Two reasons account for this choice. First, TEM 4 (Test for English Majors—Band 4) is a national test designed for undergraduates of English majors which is authoritative and of a high reliability and predictability. Second, the 2006 version of TEM 4 is designed in line with the new TEM 4 test syllabus. Therefore, the score of the test can well reflect the students' English proficiency.

The test takers are required to read four passages followed by questions or unfinished statements, each with four suggested answers marked A, B, C and D and then choose the best answer. All these reading tasks should be finished within 25 minutes. There are altogether twenty questions in the form of multiple choices and the total marks are 20. The participants will be classified into the high-proficiency level (Level H), the intermediate level (Level I) and the low-proficiency level (Level L) according to the scores they get in this test. The subjects whose scores are above 14 are categorized as high-proficiency readers and those who get the score between 10 and 13 are intermediate-proficiency readers. Those subjects who score below 9 are considered low-proficiency readers.

1.2.3 Questionnaires

In this study, there are altogether two separate qustionnaires involved. According to Parrot (1993), the questionnaire is an important tool which is often used to gather primary data about the general and common preferences of the learner, as well as to elicit the response of learners to specific factors in their learning process. The first qustionnaire (see Appendix 2) is

prepared for the students in order to investigate their adoption of metacognitive and cognitive reading strategies when doing their reading comprehension tests. The questionnaire on reading strategies used in this thesis is extracted from Phakiti's (2003) and some adjustments are made by the author. There are two reasons for the adjustments. First, several statements proposed by Phakiti are similar to each other, so they are left out in this paper. Second, some statements are added in the present study with reference to O'Malley and Chamot's classification (1990) of learning strategies as well as the reading strategies put forward by Anderson (2003). In order to make the participants understand the questionnaire clearly and thoroughly, the questionnaire is written in Chinese. The English version of the questionnaire for the students can be found in Appendix 3. The questionnaire designed for students consists of two parts. Part A concerns personal details including the student number, gender, age and class. Part B is conerned with the students' self-assessment of using reading strategies, which contains 40 statements related to metacognitive and cognitive reading strategies. In the questionnaire, the 1-5 Likert Scale is used, so five choices are offered for each statement. Participants are asked to choose the option that best represents their opinions.

The other qustionnaire (see Appendix 4) is prepared for the teachers in order to investigate whether they teach the knowledge of reading strategies to students and what their attitudes are toward the reading strategies. This questionnaire contains nine questions. For each question, four choices are offered. The teachers need to choose the option that best corresponds to their opinion.

1.2.4 Procedures

The procedures of investigation are conducted systematically. It is carried out in the following steps. First, the reading comprehension part of TEM 4 (2006) and the questionnaires are sent to the researcher's previous comprehensive English teacher via e-mail and she is asked to help arrange the participants to take the test. The subjects are required to finish the reading comprehension test within 25 minutes. After the test, the teacher distributes questionnaires to the students and asks them to finish the answers in class within 15 minutes. The participants are told that there is no right or wrong answer for the questions in the survey and their answers have nothing to do with their course grades so that they can finish the questionnire in a relaxing atmosphere. However, they must complete the questionnaire independently without discussing with their fellow classmates. The teacher score all the tests. With the help of the teacher, all the students' scores of the reading comprehension part of TEM 4 (2006) will come

out. The questionnaire for the teachers is carried out by the six teachers during working hours. The scores of the test and the questionnaires are sent back to the researcher via e-mail. Third, the researcher analyzes these data, including dividing the participants into three groups on the basis of their scores and dealing with the collected questionnaires.

The data of the questionnaire for the students is analyzed by the SPSS 17.0 (the Statistical Package for Social Science) which is a comprehensive statistical analysis and management system. By using this system, descriptive statistics, including the mean and standard deviation of 40 individual reading strategy items are calculated. In addition, the statistical correlations between the use of reading stragtegies and the participants' reading achievements are also obtained through the SPSS. In this paper, frequency refers to the extent to which different reading strategies are employed by the participants. The analysis of the frequency of strategies used by the subjects in this study is based on the scale delineated by Oxford (1990) which is shown in the table 2.

Table 2: Frequency scale delineated by Oxford (1990)

Mean score	Frequency scale	Evaluation
1.0-1.4	Low	Never or almost never used
1.5-2.4		Generally not used
2.5-3.4	Medium	Sometimes used
3.5-4.4	High	Usually used
4.5-5.0		Always or almost always used

According to Oxford (1990), the average value (mean score) reveals the frequency of strategy use. Scores between 1.0 and 1.4 indicate "never or almost never used". Scores between 1.5 and 2.4 indicate "generally not used". Scores between 2.5 and 3.4 indicate "sometimes used". Scores between 3.5 and 4.4 are "usually used" and scores between 4.5-5.0 are "always or almost always used".

2. Theoretical Background

This section provides background information for the present study. To begin with, the focus will be on the importance of reading in language learning. Then, the definition of reading and reading comprehension will be presented. After reviewing some basic concepts of reading, this section continues to discuss what the reading strategies are and the classifications of reading strategies. Finally, previous researches on reading strategies will be examined.

2.1 The importance of reading in language learning

Reading is an important skill which is the foundation for the improvement of other skills, such as speaking and writing. As we know, reading and listening belong to receptive skill, whereas writing and speaking belong to productive skill. According to Krashen (Lightbown & Spada, 2006), in order for language acquisition to take place, the acquirer should first receive comprehensible input through listening and reading before using it.

In the development of second language reading research, researchers have acknowledged the importance of reading skills for language learners. Grabe (1991) claims that the crucial significance of reading skills in academic contexts has resulted in considerable researches on reading in a second language. For second language learners, reading is the main way for them to acquire information, to understand other nations' cultures and to know the world of English-speaking countries. Reading plays a very important role in second language learning and teaching. Carrell (1998) says that for many students, reading is by far the most important of the four skills in a second language, particularly in English as a second or foreign language.

2.1.1 A brief review on reading

What is reading? Different scholars understand the term "reading" in diffferent ways. According to Fan (2010), research on what reading is has experienced two different periods. The first period began in the 1950s. Both Bloomfield and Fries who are the structural linguists, regard reading as an activity that identifies the language signs and the first priority for the learners when they read is to learn how to spell and pronounce these language symbols. Structural linguists' opinions on reading only touched upon the surface of reading instead of upon the nature of it.

With the development of the reading research, the second period began in the 1960s when psycholinguistics dominated this research field. Psychologists propose that reading is the interaction between language structure and human thinking. Goodman (1988) says that reading is a receptive language process as well as a psychological process, which begins with decoding the linguistic surface of information and ends with readers' own construction of the information. Baker and Brown (1984) argue that reading involves metacognition as well as cognition. Skilled readers do not just decode the reading materials by using cognitive and metacognitive reading stategies while reading. Actually, they are aware of their strategies and have the ability to regulate this hidden process. Silberstein (1994:12) says that "reading is a complex information processing skill in which the readers interact with the text in order to create or recreate meaningful discourse." In this sense, the reader can be viewed as an active, problem-solving individual who adopts a number of skills and strategies to facilitate comprehension.

On the basis of reviewing the historical research on reading, it can be seen that there are two types of reading. The first type of reading is speaking or reciting a written text aloud. This can be done with or without an understanding of the contents. The other type of reading is looking at a written text in order to understand its contents and this type of reading is called reading comprehension which is often done silently. In this paper, reading refers to reading with meaning, that is, reading comprehension. The types and models of reading comprehension are also discussed in the following sub-section.

2.1.2 The purpose of reading

According to Grabe and Stoller (2005), there are two major purposes of reading. First, the purpose of reading is to search for key information and for general comprehension. Second, the purpose of reading is to learn from texts.

Grabe and Stoller (2005) say that reading for searching key information is considered as a common reading ability, though some researchers regard it as a relatively independent cognitive process. Readers often scan the text quickly for a specific piece of information and it is used very frequently in doing reading tasks. Reading for general comprehension is a common part of many reading tasks and is also a useful skill.

Grabe and Stoller (2005) also claim that reading to learn from texts often occurs in academic or professional contexts in which the reader needs to learn a large amount of information from texts. Grabe and Stoller (2005: 13) point out that "reading to learn requires abilities to remember main ideas as well as a number of details that elaborate the main and supporting ideas in the text; recognize and build rhetorical frames that organize the information in the text; link the text to readers' knowledge base." Reading to learn requires strong inference demands and its reading rate is slower than general reading comprehension.

As for the TEM 4 reading comprehension test, the purpose of reading is to to find out key information or get the main ideas of passages within limited time. Sometimes, test-takers are also required to make inferences according to the given text. Therefore, it is inevitable for students to resort to different reading strategies in order to finish the complex TEM 4 reading test successfully.

2.1.3 Factors influencing reading

In order to learn how to read more efficiently, it is essential to know not only what reading is, but also the factors that influence reading. Scarcella and Oxford (cited in Aebersold & Field, 1997) propose four dimensions of competences that affect reading, namely, grammatical competence, sociolinguistic competence, discourse competence and strategic competence. Grammatical competence refers to the readers' grammar knowledge which has an impact on getting meaning. Sociolinguistic competence is the readers' ability to use language appropriately in various social contexts. Discourse competence refers to the knowledge of acceptable patterns in written and spoken language which can help interpret the texts. Strategic competence refers to the readers' ability to use a variety of language strategies while reading.

According to factors influencing reading, it can be indicated that strategic competence plays a significant role in reading comprehension, and strategies used in reading process is the central topic of this paper.

2.1.4 Reading comprehension

Johnson (1983) proposes that reading comprehension is a complex activity which involves conscious and unconscious use of various strategies (e.g. problem-solving strategies) to construct a model of the meaning which the text is assumed to have intended. Reading

comprehension is an active process that readers infer the writer's intention by using their own prior knowledge, various cognitive and metacognitive processes as well as the clues that are revealed between the lines. Johnson (1983) also suggests that assessment of performance on reading comprehension test is based on the nature of the task, characteristics of the text, and the context and the person's prior knowledge and reading abilities.

In 1972, Barrett developed a taxonomy of reading comprehension according to the readers' purposes in reading (cited in Alcantara, 2003: 92).

(1) Literal comprehension: reading in order to understand, remember or recall information explicitly appeared in a passage.

(2) Inferential comprehension: reading in order to find information that is not explicitly contained in a passage and to use the reader's experience to infer information.

(3) Critical orevaluative comprehension: reading in order to get information in a passage which is based on the reader's personal knowledge as well as values.

(4) Appreciative comprehension: reading in order to obtain an emotional or other kind of valued response from a passage.

As for the reading comprehension part of TEM 4 (2006), literal comprehension and inferential comprehension are two common types of reading comprehenion that are tested.

2.1.5 The models of reading comprehension

With the increasing understanding of what reading is, many experts have paid much attention to the researches on the reading process. Three general models of reading processes are proposed by researchers. These three models are bottom-up, top-down and interactive models, which are constructed to describe the whole reading process.

The bottom-up model is related to behaviorism. The main characteristic of this model is focusing on the function of the text itself. Gough (1972) describes how a reader processes a text from the first moment of looking at the printed words until the time when meaning is obtained from the words. The bottom-up approach is known as a lower- level reading process which has some shortcomings. First, it is text-based. According to Gough (1972), readers will read letter by letter, from left to right. They identify letters first and make these words meaningful on the lexical level. At last, meanings of words are stored in the short-term memory. Second, it separates the text into isolated parts, which prevents the reader from getting a complete meaning and it is impossible for the reader to interact with the writer.

Bottom-up models analyze reading as a process in which small chunks of text are analyzed and then added to the next chunks until they become meaningful. With all these deficiencies, the bottom-up (text-driven) model of comprehension is replaced by the top-down model in 1967.

The top-down model is known as the psycholinguistic model. Goodman (1967) says that reading is a psycholinguistic guessing game. The top-down approach is described as the process in which readers make predictions about the text according to their prior background knowledge or experience, and then read the text for confirmation of these predictions. The top-down reading model, which is also called the concept-driven reading model, stresses the importance of the readers' background knowledge in reading comprehension. Goodman (1967: 60) argues that "readers use their knowledge of syntax and semantics to reduce their dependence on the print and phonics of the text." The readers make use of their reading strategies as well as reading skills to infer what the writer means and what information is intended. The readers do not process a text by identifying and interpreting every letter and word in the text. Instead, they predict the meaning by taking advantage of their prior knowledge. Obviously, this model emphasizes the reconstruction of meaning rather than decoding the single words or word phrases of the text. However, the top-down model of reading has its limitations too. Carrell and Eskey (1988) propose that the application of top-down model to L2 reading has resulted in some problems. L2 readers lack background knowledge, so it is impossible for L2 readers to do reading comprehension without paying much attention to the words and sentences in the text. In addition, if readers pay less attention to letters or words in the text, comprehension will become a guessing game which preventing predictions from being confirmed. In light of the perceived shortcomings of both bottom-up and top-down models, a more effective model is proposed which combines these two models into one. It is called the interactive model.

The interactive model stresses that the meaning of a text is acquired by an interaction between the knowledge stored in the readers' mind and the the written language information. The model tells us that readers are not passive information receivers, but they are active information searchers and information reconstructors. Rumelhart (1977) argues that reading is a perceptual and cognitive process. All of the various sources of knowledge, including knowledge about the language patterns, syntax, vocabulary, semantics as well as context, come together to interpret what has been read. L2 readers are encouraged not only to use

lexical, syntactic, semantic and common knowledge, but also to use both careful reading skills and reading strategies to finish different reading tasks or to fulfill different reading purposes. Therefore, the interactive reading model quickly becomes central to second language reading theory and is widely put into practice in the field of English reading teaching.

The above three reading models help us have a further understanding of the nature of reading and also provide us with a theoretical basis and guidance for learning and teaching reading.

2.2 Definition of Reading strategies

Different researchers show different opinions on the definitions of reading strategies. Barnett (1988) argues that reading strategies refer to the tools that are used by the readers for solving problems and acquiring text information. Cohen (1990) defines reading strategies as the psychological process and these strategies are used by the reader consciously when he is doing a reading task. Anderson (1991: 460) claims that the reading strategies are "cautions and cognitive measures adopted by the reader for acquiring, storing and amending new information". Although different researchers define reading strategies in different ways, they have the common agreement that reading strategies are conscious actions that the readers take to achieve specific reading goals. Reading strategies are part of the language learning strategies which are essential factors of effective reading. All the strategies used by the readers, directly or indirectly, in the process of doing reading tasks not only solve the specific comprehension difficulties, but are also helpful in improving the reading comprehension ability. According to Carrell (1998), reading strategies include the following strategies: scanning the text to get the main idea of the text; skimming the text quickly to obtain specific infomation; skipping over new words; using context to guess words; predicting the text content, and so on. In this paper, reading strategies used by the students are classified into metacognitive and cognitive reading strategies.

2.3 The classification of reading strategies

In this sub-section, different classifications of language learning strategies will be summarized first and then O'Malley and Chamot's (1990) classification will be focused on. The reading strategies which will be studied in this paper are based on O'Malley and Chamot's learning strategies.

Second Language Acquisition researchers have spent much time studying language learning strategies. Cohen (1990), O'Malley and Chamot (1990) and Oxford (1990) have provided different classifications of learning strategies. Oxford (1990) defines learning strategies as behaviors or actions which are consciously taken by learners to make language learning more successful and self-directed. O'Malley and Chamot (1990:1) say that "language learning strategies are the special thoughts or behaviors that individuals use to help them comprehend, learn or retain new information." The present study is based on O'Malley and Chamot's classification of learning strategies, because their classification is more clear and easier to understand by comparison with that of Oxford's. In addition, O'Malley and Chamot's (1990) classification is much related to this study in that they divide the learning strategies into three sub-categories, whereas Oxford divides them into six subcategories. In this paper, only metacognitive and cognitive strategies used by sophomore English majors will be examined, so six subcategories will not to be used as a reference.

O'Malley and Chamot (1990) think that learning strategies are mental and social-affective processes, so they divide the learning strategies into three main branches, namely, metacognitive, cognitive and social-affective strategies. They ground the classification of learning strategies on Anderson's information processing theory. Oxford (1990) proposes that the language learning strategies can be divided into direct and indirect groups. Among them, memory strategies, cognitive strategies and compensation strategies are classified into direct strategies, whereas metacognitive strategies, affective strategies and social strategies belong to indirect strategies.

Cohen's classification of language learning strategies is slightly different from the two researchers mentioned above. In consideration of the purposes of using strategies, Cohen (1990) classifies second language learner strategies into two types: language learning strategies and language use strategies. Language learning strategies are strategies used to learn a language, which include identifying the materials that need to be learned; distinguishing some materials form others; grouping materials for easier learning; having repeated contact with the materials and committing to memorize materials when they cannot be acquired naturally. Language use strategies refer to strategies that are adopted by learners in order to use a language. They contain retrieval strategies, rehearsal strategies, compensation strategies and communication strategies.

As mentioned above, in this paper, O'Malley and Chamot's classification of learning strategies is adopted. Metacognitive strategies and cognitive strategies used by the sophomore English majors in the process of doing reading tasks will be investigated, while the other learning strategies---social/affective strategies will be neglected, since they are not as closely related to reading comprehension as cognitive and metacognitive strategies.

2.3.1 Metacognitive strategies

The notion of metacognitive strategies originated from metacognition which first appeared in Flavel's research on the preschool children's cognition in the early 1970s. Flavell (1978: 58) defines metacognition as "knowledge that takes as its object or regulates any aspect of any cognitive behavior". In other words, the function of metacognition is to monitor or regulate cognitive strategies. Baker and Brown (1984: 353) say that metacognitive strategies encompass "checking the outcome of any attempts to solve a problem, planning one's next move, monitoring the effectiveness of any attempted action, testing, revising and evaluating one's strategies for learning". O'Malley and Chamot (1990) point out that metacognitive strategies are higher order executive skills which involve knowledge about cognitive processes, regulation of cognition, self-management, planning for learning, monitoring and self-evaluating after the learning activities have been completed. Oxford (1990: 136) considers metacognitive strategies as "actions which go beyond purely cognitive devices, and which provide a way for learners to coordinate their own learning process". He says that metacognitive strategies are essential for successful language learning. Strategies, such as organizing, setting goals, considering the purpose and planning for a language task, help learners arrange as well as plan for their language learning in an efficient way. According to the definitions of metacognitive strategies above, it can be concluded that metacognitive strategies involve planning for learning, thinking about the learning process, monitoring of comprehension and self-evaluating after the learning activities are finished. It is also known that they are higher-order executive skills which may make planning, monitoring or evaluating become an important part of a learning activity.

As for classification of metacognitive strategies, it began in the 1970s. O'Malley and Chamot (1990) classify metacognitive strategies into three categories on the basis of their functions in general language learning. The sub-categories of metacognitive strategies are listed in the following Table. Table 3 is not directly taken from O'Malley and Chamot (1990), but it is made on the basis of what they said in their books. Therefore, it is modified by the researcher.

Table 3: O'Malley and Chamot's classification of metacognitive strategies

Strategies	Categories	Strategies
Metacognitive strategies	Planning	1. Advance organization: deciding what the objective of a specific reading task is and making a plan on how to finish it.
		2. Directed attention: Paying attention to the main points in a reading task to get a general understanding and ignoring irrelevant information.
		3. Selective attention: Paying attention to particular details which related to the reading comprehension tasks.
		4. Self-management: Understanding necessary conditions for reading and managing their own motivation for tasks as well as adjusting reading rate.
	Monitoring	1.Comprehension monitoring: Monitoring understanding of the reading materials and checking or verifying one's understanding.
		2. Task monitoring : monitoring completion of the tasks.
	Self-evaluation	1. Performance evaluation: judging how well they have done on the reading task.
		2. Problem identification: deciding on what problems they still have with the reading task.

Table 3 above shows that the metacognitive strategies include advance preparation; adjusting reading speed according to different reading purposes and reading tasks; using different reading strategies; having a clear aim of the information that has to be obtained; evaluating the reading process actively.

2.3.2 Cognitive strategies

O'Malley and Chamot (1990) say that the cognitive strategies are closely linked to specific learning tasks and they are used in the learning process, including repetition, translation, grouping, resourcing, note-taking, deduction, elaboration, imagination and inferencing. They (1990: 44) define cognitive strategies as "operating directly on incoming information, manipulating it in ways that enhance learning." The cognitive strategies that are involved in reading activities include relating new words to a word in memory or writing down the main idea; outlining key points or making a brief summary of the text in order to comprehend the

text better. O'Malley and Chamot (1990: 40) propose that "cognitive strategies include 15 items: repetition, directed physical response, translation, grouping, note-taking, deduction, recombination, imagery, auditory representation, key words, contextualization, elaboration, transfer and inference." The cognitive strategies proposed by O'Malley and Chamot are listed in Table 4.

Table 4: O'Malley and Chamot's classification of cognitive strategies

Strategies	Categories	Strategies
Cognitive strategies	Resourcing	Using target language reference materials. (e.g.dictionaries, encyclopedias, textbooks)
	Deduction	Consciously applying rules to understand or produce the second language or working out the parts they fail to understand.
	Translation	Using the first language as a base for understanding and producing the second language.
	Grouping	Reordering or reclassifying and perhaps labeling the material to be learned based on common attributes or meaning.
	Recombination	Constructing a meaningful sentence or larger language sequence by combining known elements in a new way.
	Contextualization	Working out what they have missed in understanding by looking at it in a meaningful language sequence.
	Elaboration	Applying background knowledge to new concepts or making personal associations.
	Note-taking	Writing down key words or concepts.
	Inferencing	Using available information to guess meanings of new items.
	Summarising	Making a summary of new information.

According to table 4 above, it can be concluded that cognitive strategies involved in reading are inferencing through the context, scanning, skimming, grouping, translation, imagination, reviewing and note-taking, deduction and elaboration.

Another scholar, Anderson (2003), proposes ten items relating to cognitive reading strategies. The details of these ten items are as follows:

(1) Predicting the content of an upcoming passage or section of the text;
(2) Relying on grammar to help understand unfamiliar constructions and understanding the main idea to help comprehend the entire reading;
(3) Expanding vocabulary and grammar to increase reading speed;
(4) Guessing the meaning of unfamiliar words or phrases by using prior knowledge about English;
(5) Analyzing theme, style and connections to improve comprehension;
(6) Distinguishing between opinions and facts in reading;
(7) Breaking down larger phrases into smaller parts to help understand difficult passages;
(8) Linking L1 knowledge with words in English;
(9) Creating a map or drawing of related ideas to understand the relationship between words and ideas;
(10) Writing a short summary of what you read to help get the main ideas.

Compared with O'Malley and Chamot's cognitive strategies in the learning process, Anderson's cognitive reading strategies are more specific and detailed, because these strategies are focused on the reading part. Thus, his ten items of cognitive reading strategies are used as reference when designing the questionnaire for the students.

2.3.3 Studies on reading strategies in China and in other countries

Reading strategies are considered as a particularly important part in English learning. Studies on reading strategies became the focus of second language reading in the late 1970s to the early 1980s and these studies on reading strategies still have been conducted by researchers in recent years. Researchers show interest in studying reading strategies, mainly because using strategies is related to effective reading. The English syllabus of Chinese universities demands teachers to train students by using correct and effective reading strategies so as to make students become good readers.

As we know, reading comprehension makes up a large proportion of every English proficiency test, thus it is essential to make sure that students can finish reading comprehension tasks purposefully and effectively. In order to achieve this goal, students need to develop useful reading strategies and master some reading skills to comprehend the given texts in an effective way and then finish different kinds of tasks successfully. Without doubt,

reading comprehension is a complex process that involves many strategies. These strategies are keys to get relevant information or to interpret meanings that are implied in the words or sentences. Therefore, the study of reading strategies has been undertaken by psycholinguists and cognitive linguists both in China and in other countries. The major reason to divide studies on reading strategies in China and in other countries is that the investigation of this study is carried out among Chinese university students who learn English as a foreign language, so the review on the studies conducted in China is made in detail. The results of the previous studies are used to support or have a comparsion with the result of the present study.

2.3.3.1 Studies on reading strategies in China

In China, all universities and colleges hope to train English majors with high-proficiency Engish ability. The fact is that not all the English majors are good readers. This situation is well reflected in large-scale examinations, such as TEM 4 and TEM 8, since a large number of English majors get low marks in the reading comprehension part. As a matter of fact, many English majors have difficulties in doing reading comprehension tasks successfully and they cannot even understand what they have read effectively.

Since the 1980s, Chinese researchers have studied the situation of the use of learning strategies in reading among Chinese learners. The Chinese scholars Lv and Tu (1998) examined the use of reading strategies by non-English majors and they concluded that metacognitive strategies, like self-evaluating and planning strategies, were less used by the students in their English reading. Liu (2001) conducted a study on the relationship between reading strategies and reading comprehension achievement. She designed a questionnaire to English major students in a university in China. The research shows that reading strategies adopted by the students were closely related to their reading achievement. High-scoring students used cognitve, metacognitive strategies more frequently than low-scoring students when doing reading comprehension tasks. Yang and Zhang's (2002) study reveal that there is a positive correlation of Chinese college students' metacognitive knowledge with their English reading achievement. Meng (2004) found that using and training reading strategies can improve the students' English reading ability. Liu's study (2002) reflects that Chinese students differed greatly in the use of the reading strategies, since successful language learners were much better at using metacognitive strategies than the unsuccessful ones. Xu's (2007) investigation on the college students' metacognitive awareness of reading strategies

shows that the participants had awareness of using different types of metacogitive strategies to facilitate reading comprehension and to meet the purposes of different kinds of reading texts.

2.3.3.2 Studies on reading strategies in other countries

Baker and Brown (1984) investigated the relationship between metacognitive ability and effective reading proficiency. The findings indicate that high achievers are higher metacognitive and more self-directed than low achievers. O'Malley and Chamot (1990) propose eight metacognitive strategies that are the most frequently used by students with a higher reading ability. These metacognitive strategies include planning, directed attention, selective attention, self-monitoring, self-management, delayed production, self-enhancement and self-evaluation. Carell (1989) investigated the relationship between the metacognitive awareness of second language readers and comprehension in both their first and second language reading through metacognitive strategy training. The result demonstrates that better readers were also better strategy users. Gourgey (1999) found that the metacognitive strategies that differentiate proficient readers from non-proficient readers were as follows: clarifying the statements of the text; understanding the relationship between main contents; activating the relevant background knowledge; identifying the important aspects of a message; self-questioning; self-monitoring. Ryan (1981) compared students who use metacognitive strategies with those who do not use them. He found that successful readers use more strategies effectively than unsuccessful readers and said that successful readers often adjust their reading rate for ambiguous words or confusing parts within a text and may repeat inconsistent sentences several times to compare what they know with what is written in the text.

Salataci and Akyel (2002) claim that cognitive reading strategies help the readers in constructing meaning from the text. Phakiti (2003) argues that cognitive reading strategies are directly related to the target language as well as the world knowledge of the learners, which allows them to construct meaning from a text and to perform the given task. Anderson (2003) revealed that weaker students are quite different from stronger students in reading abilities. He found that better readers use more cognitive reading strategies.

Zare-ee (2007) made a study on the relationship cognitive and meta-cognitve strategy use and EFL reading achievement. The findings of this study indicate that the correlation between reading achievement and the use of meta-cognitve strategies is significant, while the

correlation between reading achievement and the use of cognitive strategies is insignificant. This study also reveals that students with higher level reading proficiency use metacognitive strategies more often than the less successful readers. Phakiti (2003) carried out an investigation on the relationship of test-takers' use of cognitive and metacognitive strategies in English as a Foreign Language reading test performance. The results suggest that the use of cognitive and metacognitive strategies had a positive impact on the learners' reading test performance. Successful test-takers are found that they use metacognitive strategy with higher frequency than the unsuccessful learners.

The review of studies on reading strategies above indicate that researchers pay much attention to the relationship between metacognitive reading strategies and second language reading. Many researches show that the use of metacognitive strategies by the learners are closely related to their reading achievements. High-proficiency readers use more metacognitive strategies than those low-proficiency readers. However, very few studies have been done on the relationship between Chinese English majors' using of both cognitive and metacognitive strategies and their reading proficiency. This is the reason why the present study is conducted.

3. Analysis and Discussion

In this section, the data collected from the reading comprehension test and two questionnaires are analyzed. This section consists of four major parts. In the first part, the results of the reading comprehension test are presented. In the second part, the frequency of metacognitive and cognitive reading strategies used by Chinese English major sophomores is shown. The correlation between reading strategy use and the participants' reading achievements as well as the differences of using reading strategies between high-proficiency readers and low-proficiency readers will be discussed. In the third part, teachers' responses toward reading strategies will be discussed. In the last part, some pedagogical implications will be suggested.

3.1 Analysis of the result of the reading comprehension test

A total of 54 students participated in taking the reading comprehension part of TEM 4 (2006) test. They were divided into three groups on the basis of their scores. The students whose scores were above 14 marks were regarded as high-proficiency readers and those students whose scores were between 10 and 13 were categorized as intermediate-proficiency readers.

The participants who scored below 9 were viewed as low-proficiency readers. Table 5 gives the basic background information on the participants and Table 6 presents the classification of the partcipants according to their scores.

Table 5: Distribution of the participants

Class	Female	Male	Total Number
3	22	4	26
4	23	5	28
Total number	45	9	54

Table 6: The result of the reading comprehension test

Scores	Class	Number	Total Number	Percentage
Above 14	3	7	12	22%
	4	5		
10-13	3	13	29	54%
	4	16		
Below 9	3	6	13	24%
	4	7		
Total number			54	100%

According to table 5, there are 26 students from class 3. Among them, 22 are female students and the other four are male students. As for class 4, 23 participants are female ones and 5 participants are male ones. The number of students from class 4 is 28 in total. Table 6 reflects that the total number of the students whose scores are above 14 is twelve, which means that 22 percent of the participants can be categorized as high-level readers. There are twenty-nine students whose scores are between 10 and 13 and it means that 54 percent of the students are intermediate-level readers. The other thirteen participants' scores are below 9 marks which accounts for 24 percent of the total participants, so they are labeled as low-level readers.

3.2 Analysis of the questionnaire for the students

The questionnaire for the students includes 40 items. Among them, 24 items can be classified as metacognitive reading strategies and the other 16 items are cognitive reading strategies. The 24 items of metacognitive reading strategies are further divided into six subcategories: advanced organization, selective attention, directed attention, self-management, monitoring

and self-evaluation. Similarly, the 16 items of cognitive strategies are also grouped into 10 subcategories, namely, skimming, prediction, analyzing, inferring, translation, summarizing, elaboration, repetition, guessing and note-taking. The detailed information is shown in table 7.

Table 7: A taxonomy of the cognitive and metacognitive strategies in the questionnaire

Strategies	Subcategories	Number of items	Items in questionnaire
Metacognitive strategies	Advanced organization	4	1, 2, 3, 4
	Selective attention	4	6, 8, 16,22
	Directed attention	1	7
	Self-management	2	21, 32
	Monitoring	7	20, 23, 24, 25, 26, 30, 34
	Self-evaluation	6	35, 36, 37, 38, 39, 40
Cognitive strategies	Skimming	1	5
	Prediction	1	9
	Anzlyzing	3	10, 18, 33
	Inferring	3	11, 29, 31
	Translation	1	12
	Summarizing	1	13
	Elaboration	2	14, 27
	Repetition	1	15
	Guessing	2	17, 19
	Note-taking	1	28

3.2.1 The overall situation of the use of reading strategies

One of the aims of this study is to investigate the frequency of reading strategies used by sophomore English majors in their English reading. According to the 54 participants' questionnaire answers, the frequency of metacognitive and cognitive reading srategies use and the frequency of their subcategories are presented in the following four tables.

Table 8: Descriptive statistics about two major classes of reading stategies

Strategies	N	M	Frequency scale
Metacognitive strategies	54	2.82	Medium
Cognitive strategies	54	2.81	Medium

N=number of participants; M=mean;

According to Oxford's (1990) frequency scale, variable scores between 3.5 and 5.0 are regarded as high in frequency, and scores between 2.5 and 3.4 are viewed as medium. Those variables that score between 1.0 and 2.4 are considered as low. From table 8, it can be found that the mean score of metacognitive reading strategies is 2.82 and the mean score of cognitive reading strategies is 2.81. The average of both these two major kinds of reading strategies are between 2.5 and 3.4, so their frequency in use belongs to medium. According to Oxford (1990), it further indicates that the participants sometimes use both metacognitive and cognitive reading strategies. The above table also reveals that metacognitive strategies used by the participants (M=2.82) is slightly more frequent than cognitive strategy use (M=2.81). In order to investigate the differences in using different subcategories of the metacognitive and cognitive reading strategies by the participants, the following table about the frequency of using the sixteen subcategories of reading stategies is displayed.

Table 9: Descriptive statistics about 16 subcategories of reading stategies

Strategies	Subcategories	M	Frequency scale
Metacognitive strategies	Advanced organization	2.59	Medium
	Selective attention	3.19	Medium
	Directed attention	2.29	Low
	Self-management	3.23	Medium
	Monitoring	3.06	Medium
	Self-evaluation	2.56	Medium
Cognitive strategies	Skimming	3.83	High
	Prediction	2.59	Medium
	Anzlyzing	2.92	Medium
	Inferring	2.96	Medium
	Translation	2.18	Low
	Summarizing	2.91	Medium
	Elaboration	3.04	Medium
	Repetition	3.24	Medium
	Guessing	3.50	High
	Note-taking	1.39	Low

M=mean;

Table 9 shows that the skimming (M=3.83) and guessing (M=3.50) strategies are used in high frequency and they belong to cognitive reading strategies. The means of those two strategies are between 3.5 and 4.4, which means that they are usually used by the students. On the contrary, directed attention (M=2.29), translation (M=2.18) and note-taking (M=1.39) strategies are used in low frequency. The means of directed attention and translation are between 1.5 and 2.4, which means that they are generally not used by the students. The note-taking strategy is ranked as the lowest, with a mean of 1.39 which is below 1.4, so it is never or almost never used by the students. The above table reflects that a majority of reading strategies is in medium use with a mean of between 2.5 and 3.4, so they are sometimes used by the participants. According to the statistics above, there are some slight differences between different reading strategies. The sequence of these 16 reading strategies is as follows: skimming (M=3.83), guessing (M=3.50), repetition (M=3.24), self-management (M=3.23), selective attention (M=3.19), monitoring (M=3.06), elaboration (M=3.04), inferring (M=2.96), analyzing (M=2.92), summarzing (M=2.91), prediction (M=2.59), advanced organization (M=2.59), self-evaluation (M=2.56), directed attention (M=2.29), translation (M=2.18) and note-taking (M=1.39). Among all the 16 groups of reading strategies, 13 of them are above 2.5, which shows that the students can employ various strategies to accomplish their reading tasks. Table 10 and table 11 in the following are descriptive statistics about the forty items of reading strategies in the questionnaire. Table 10 shows the mean of each item of metacognitve strategies, with 24 items in total. Table 11 displays the mean of each item of cognitve strategies with 16 items in total.

Table 10: Descriptive statistics of each item of metacognitive strategies

	Item number in questionnaire	Number of participants	Mean	SD
Mcs 1	Q1	54	2.31	.95
Mcs 2	Q2	54	2.98	.90
Mcs 3	Q3	54	2.70	.79
Mcs 4	Q4	54	2.38	.99
Mcs 5	Q6	54	3.20	.97
Mcs 6	Q8	54	3.02	.72
Mcs 7	Q16	54	4.41	.49
Mcs 8	Q22	54	2.15	.79
Mcs 9	Q7	54	2.29	.81

Mcs 10	Q21	54	3.37	.68
Mcs 11	Q32	54	3.09	.73
Mcs 12	Q20	54	3.00	.87
Mcs 13	Q23	54	3.26	.81
Mcs 14	Q24	54	2.20	.71
Mcs 15	Q25	54	3.85	.63
Mcs 16	Q26	54	2.93	.80
Mcs 17	Q30	54	3.26	.73
Mcs 18	Q34	54	2.94	.74
Mcs 19	Q35	54	2.37	.85
Mcs 20	Q36	54	2.50	.99
Mcs 21	Q37	54	2.37	.83
Mcs 22	Q38	54	2.94	.71
Mcs 23	Q39	54	2.81	.85
Mcs 24	Q40	54	2.39	1.09

SD=standard deviation; Mcs=metaconitive strategy; Q=question

In table 10, Mcs refers to metacognitive strategy, and the numbers 1-24 represent the 24 statements in the questionnaire for the students related to metacognitive strategies. From the table, it can be seen that the frequency of two strategies is high with means above 3.5. They are strategies Mcs 7 and Mcs 15. The results show that Mcs 7 (M=4.41, SD=0.49) is the most frequently used strategy of all the 24 statements of metacognitive strategies and its frequency scale is high, so it is usually used by the students. However, the SD of Mcs 7 is the lowest one, which indicates that the degree scores chosen by the students toward this statement are very close to the mean, and the use of this strategy does not vary greatly among the individuals. The statement of Mcs 7 is “I underline or circle key words or key sentences while reading”. It reflects that most subjects realize the importance of marking out the useful information during reading and pay much attention to it, which might be helpful to them in understanding the reading material. Mcs 15 is also in high frequency use with the mean of 3.85. The statement of Mcs 15 is “I keep track of my own progress to complete the questions on time”. It shows that most participants frequently monitor their completion of the reading tasks. The SD of Mcs 15 is 0.63, which is higher than Mcs 7, so it indicates that the use of Mcs 15 varies more among the individuals than the adoption of Mcs 7. Meanwhile, Mcs 8 (M=2.15, SD=0.79) is the least frequently used strategy of all the 24 statements and its frequency scale is low. According to Oxford (1990), Mcs 8 belongs to “generally not used”. The statement of Mcs 8

is “I mark the topic sentences of every paragraph”. It reveals that most participants have no habit of highlighting the topic sentences of each paragraph. There are 16 strategies with their means between 2.5 and 3.4 which belong to the level of medium use, so they are sometimes used by the students. The means of Mcs 1, 4, 8, 9, 14, 19, 21 and 24 are below 2.5, which indicates that these strategies are not favored by the students. There is no strategy in the above table with a mean of between 1.0 and 1.4 which would mean that it is never or almost never used.

The table 11 shows the mean of 16 strategies use under cognitive strategy. In this table, CS refers to cognitive strategy and number 1-16 represent the number of statements in the questionnaire for the students which are related to cognitive strategies, and they are used to survey the situation of the subjects’ adoption of cognitive strategies in reading.

Table 11: Descriptive statistics of each item of cognitive strategy

	Item number in questionnaire	Number of participants	Mean	SD
Cs 1	Q5	54	3.83	.72
Cs 2	Q9	54	2.59	.86
Cs 3	Q10	54	2.39	.81
Cs 4	Q18	54	3.16	.92
Cs 5	Q33	54	3.22	.82
Cs 6	Q11	54	2.41	.80
Cs 7	Q29	54	2.96	.91
Cs 8	Q31	54	3.50	.72
Cs 9	Q12	54	2.18	.89
Cs 10	Q13	54	2.91	.73
Cs 11	Q14	54	2.80	.71
Cs 12	Q27	54	3.28	.86
Cs 13	Q15	54	3.24	.58
Cs 14	Q17	54	3.17	.93
Cs 15	Q19	54	3.81	.62
Cs 16	Q28	54	1.39	.49

SD=standard deviation; Q=question

From table 11, it can be seen that Cs 1 (M=3.83) is the most frequently used strategy among all the 16 statements of cognitive strategies. According to Oxford (1990), the frequency scale of CS1 is high and it is "usually use" to most participants. The statement of CS1 is "I skim the text quickly to have a general understanding of the given text". It shows that most subjects know the importance of skimming the given text quickly to have some general idea before reading closely. Likewise, both the means of Cs 8 (M=3.50) and Cs 15 (M=3.81) are above 3.5, which indicates that those two cognitive strategies are used in high frequency and they are usually used by the students. The statements of those two strategies are "I use the available clues or information to guess the new information" and "I guess the meaning of unknown words according to their roots or affix" respectively. On the contrary, the least frequently used strategy is CS 16 (M=1.39) and it refers to the statement "I take notes when reading to help memorize useful information". This result shows that most subjects do not take notes while doing reading comprehension tests. There are 12 strategies with means between 2.5 and 3.4 which belong to the level of medium use, so it means that a large majority of cognitive strategies are used by most participants when they are doing reading comprehension tests.

To sum up, the frequency of the metacognitive and cognitive reading strategies used by the subjects is moderate. Metacognitive strategies, such as advanced organization, self-evaluation and directed attention are less used by the students than other subcategories of reading strategies. According to O'Malley and Chamot (1990), advanced organization and directed attention strategies are categorized as planning and therefore, one finding of this study is that the students lack the ability to plan for reading. This investigation about the application frequency of reading strategies is similar to the study on the adoption of reading strategies by college students which was conducted by the Chinese scholars Lv and Tu (1998). They concluded that metacognitive strategies like self-evaluating and planning strategies were less adopted by the students in their English reading. Metacognitive strategies are higher level strategies which are not easily mastered by the students.

The frequency of using metacognitive strategies is almost equal to the use of cognitive strategies, which means that both these major classes of reading strategies are sometimes used by the students. The strategy of note-taking is generally not used. Strategies of directed attention and translation are also used in low frequency. Skimming and guessing which belong to cognitive reading strategies are used in high frequency. The frequency scale of six

subcategories of metacognitive strategies are all medium except directed attention which belongs to low frequency. The other five categories of metacognitive strategies are advanced organization, selective attention, self-management, monitoring and self-evaluation. As for cognitive strategies, six subcategories are classified as medium, namely, prediction, analyzing, inferring, summarizing, elaboration and repetition. It shows that the students adopt various kinds of cognitive reading strategies when doing reading comprehension tests. Furthermore, the result of the frequency of using reading strategies by sophomore English majors show that the students have paid some attention to the use of reading strategies.

3.2.2 Correlations between the use of reading strategies and the participants' reading achievements

In order to find the relationship between the use of reading strategies and reading achievements, Pearson's analysis of correlation coefficient is used in this study (Wen & Wang, 2001). There are three kinds of relation, namely positive correlation, negative correlation and zero correlation. Positive correlation refers to the case when two variables vary in the same direction. Negative correlation means two variables vary in the opposite direction. Zero correlation means that two variables have no relation at all. Correlation coefficient is significant if sig. (2-tailed) (p) reaches the significant level of .05 or .01. In the case of the .05 level of significance, the confidence level is 95%. The .01 level of significance is equivalent to the 99% confidence level. If the probability (p) is greater than .05, the correlation coefficient obtained is regarded as insignificant. As for the Pearson correlation (r), the closer it is to 1, the more significant is the correlation between the two variables. If the Pearson correlation is closer to 0, it means that the two variables are insignificantly correlated.

To examine the correlation between the use of reading strategies and the students' reading achievements is another major aim of this study. Four tables in the following are made to illustruate this research question. The scores of the students' reading comprehension tests are ranked from highest to lowest in the SPSS and the responses students make to all the statements in the questionnaire are correspondently put into the SPSS.

Table 12: Correlation between overall reading strategies and the participants' scores

		TEM 4 (2006) achievement	Reading strategies
TEM 4 (2006) achievement	Pearson Correlation	1	.711**
	Sig. (2-tailed)		.000
	N	54	54
Reading strategies	Pearson Correlation	.711**	1
	Sig. (2-tailed)	.000	
	N	54	54

** Correlation is significant at the 0.01 level (2-tailed).

According to the statistics above, the Sig. (2-tailed) is .000 ($p<0.01$) which is significant at the level of 0.01. The result of the Pearson correlation between the overall reading strategies use and the subjects' scores is .711 which means that there are positive correlations between the use of reading strategies and the subjects' English reading achievements. Moreover, .711 is much closer to 1, which reflects that the correlation between reading strategy use and reading achievements is very significant. This result further indicates that reading strategies play a very important role in the students' English reading comprehension tests.

Table 13: Correlation between metacognitive strategies and the participants' scores

		TEM 4 (2006) achievement	Metacognitive strategies
TEM 4 (2006) achievement	Pearson Correlation	1	.667**
	Sig. (2-tailed)		.000
	N	54	54
Metacognitive strategies	Pearson Correlation	.667**	1
	Sig. (2-tailed)	.000	
	N	54	54

** Correlation is significant at the 0.01 level (2-tailed).

Table 13 shows that the correlation between metacognitive strategies and reading achievements is .667; its probability (.000) is lower than .01, which means that metacognitive reading strategies and reading achievements are significantly positively correlated. It further indicates that the participants who adopt metacognitive reading strategies more frequently achieve higher reading achievements.

Table 14: Correlation between cognitive strategies and the participants' scores

		TEM 4 (2006) achievement	Cognitive strategies
TEM 4 (2006) achievement	Pearson Correlation	1	.705**
	Sig. (2-tailed)		.000
	N	54	54
Cognitive strategies	Pearson Correlation	.705**	1
	Sig. (2-tailed)	.000	
	N	54	54

** Correlation is significant at the 0.01 level (2-tailed).

Table 14 above shows that the correlation between reading achievements and cognitive strategies is .705, its probability ($p=0.000< .01$). Therefore, the correlation between reading achievements and cognitive strategies is strongly positive, which indicates that the students who have better English reading performance apply cognitive strategies more frequently.

Table 15: Correlation between 16 subcategories of reading strategies and the participants' reading achievements

Strategies	subcategories	Pearson correlation	Sig (2-tailed)	Number
Metacognitive strategies	Advanced organization	.454**	.001	54
	Selective attention	.585**	.000	54
	Directed attention	.226	.100	54
	Self-management	.580**	.000	54
	Monitoring	.492**	.000	54
	Self-evaluation	.590**	.000	54
Cognitive strategies	Skimming	.161	.244	54
	Prediction	.578**	.000	54
	Anzlyzing	.578**	.000	54
	Inferring	.694**	.000	54
	Translation	-.443**	.001	54
	Summarizing	.490**	.000	54
	Elaboration	.360**	.007	54
	Repetition	.231	.093	54
	Guessing	.626**	.000	54
	Note-taking	-.412**	.002	54

** Correlation is significant at the 0.01 level (2-tailed).

According to table 15 above, there are eleven subcategories of reading strategies which are positively correlative with reading achievements. Among them, advanced organization, selective attention, self-management, monitoring and self-evaluation belong to metacognitive reading strategies. Prediction, analyzing, inferring, summarizing, elaboration, guessing are cognitive reading strategies. Inferring (r= .694**), guessing (r= .626**), self-evaluation (r= .590**), selective attention (r= .585**), self-management (r= .580**), prediction (r= .578**) and analyzing (r= .578**) strategies are significantly correlated to reading achievements, since their Pearson correlation are much closer to 1. By contrast, monitoring (r= .492**), summarizing (r= .490**), advanced organization (r= .454**) and elaboration (r= .360**) strategies are not so strongly correlated to reading proficiency. The results presented in this table show that translation (r= -.443**) and note-taking (r= -.412**) strategies are negatively correlated to reading achievements. The correlation coefficient of directed attention (p= .100>0.05), skimming (p= .244>0.05) and repetition (p= .093>0.05) strategies to reading achievements are regarded as insignificant, since their probability (p) is greater than .05.

Based on the analysis of correlations between the use of different reading strategies and the participants' English reading achievements above, it can be concluded that both cognitive reading strategies and metacognitive reading strategies are positively correlated to reading achievements. It means that students who have better reading proficiency use cognitive and metacognitive reading strategies more frequently. This result is identical with the study carried out by the Chinese scholar Liu (2001) who found that reading strategies adopted by the students had a close correltaion to their reading achievements. The result is also supported by another Chinese scholar, Meng (2004), who found that reading strategy use can improve the students' English reading ability.

The finding above reflects that both cognitive and metacognitive strategies are of crucial importance to language learning. Cognitive strategies are significantly related to reading achievements. As O'Malley and Chamot (1990) say, cognitive stategies are closely connected to specific learning tasks and exert diect impact on language acquisition. This study finds that students adopt various kinds of cognitive strategies in reading. For instance, guessing meanings of the unknown words or phrases from the context, analyzing the structure of sentences in reading and predicting the content of upcoming passages. These strategies are all

positively correlated to reading achievements, so it can be concluded that the use of cognitive reading strategies play an important role in doing reading comprehension tests.

Metacognitive strategies are also very important to the learning process. In reading, specific metacognitive activities, such as making a plan of reading, adjusting reading speed and evaluating one's performance in reading are all positively correlated to reading achievements. As Oxford (1990) says, metacognitive strategies are essential to successful language learning. Strategies, such as setting goals, planning for a language task and considering the purpose of a language task help learners arrange as well as plan for their language learning in an efficient way.

Furthermore, the Pearson correlation between cognitive reading strategies and English reading achievements (r= .705**; p= .000) is higher than the correlation of metacognitive reading strategies to reading achievements (r= . 667**; p= .000). This result shows that cognitive reading strategies correlate more significantly to reading achievements compared with metacognitive reading strategies. This result is different from Zare-ee's (2007) result. The findings of Zare-ee's study indicates that the correlation between reading achievements and the use of metacognitive reading strategies is significant, while the correlation between reading achievements and the use of cognitive strategies is insignificant. Two major reasons might explain this difference. The first reason is that there are some differences in designing the statements of the questionnaire related to reading strategies. In Zare-ee's study, there are 12 statements related to cognitive reading strategies and some important statements are not included in his questionnaire. The second might be the number of participants. There are 30 Iranian students in total involved in the study carried out by Zare-ee, while there are 54 Chinese students in the present study.

3.2.3 Differences between high-proficiency and low-proficiency readers in reading strategy use

The last aim of this study is to investigate the differences between high-proficiency readers and low-proficiency readers in metacognitive and cognitive reading strategy use. In this subsection, three tables are displayed to reveal these differences in the frequency of using reading strategies between high-level readers and low-level readers.

Table 16: Frequency distribution of metacognitive and cognitive reading strategies

	High-proficiency readers			Low-proficiency readers		
Strategies	M	Frequency scale	N	M	Frequency scale	N
Metacognitive strategies	3.49	High	12	2.44	Low	13
Cognitive strategies	3.27	Medium	12	2.68	Medium	13

M=mean; N=number

Table 16 above shows that the mean scores of both metacognitive and cognitive reading strategy use of high-proficiency readers outnumber that of low-proficiency readers. The mean of strong readers in adopting metacognitive strategies is 3.49 which belongs to high frequency use. According to Oxford (1990), this result means that metacognitive strategies are usually used by the high-proficiency readers. As for the weak readers, the mean of using metacognitive reading strategies is 2.44 which means that weak readers generally do not use metacognitive strategies, so it belongs to low frequency use. The differences also exist in the use of cognitive reading strategies between high-level readers and low-level readers. The mean of cognitive reading strategies used by the high-proficiency readers is 3.27, whereas for the low-proficiency readers, the mean is 2.68. Though the frequency scales for these two groups are medium, high-level readers use cognitive reading strategies more frequently than those low-level readers when they are doing English reading comprehension tests. In short, high-proficiency readers use metacognitive and cognitive strategies more frequently than low-proficiency ones.

The following two tables, table 17 and table 18, reveal the differences in six subcategories of metacognitive strategies and ten subcategories of cognitive strategies use between high-proficiency and low-proficiency groups separately.

Table 17: Frequency distribution of six subcategories of metacognitive reading strategies

	High-proficiency readers			Low-proficiency readers		
Metacognitive strategies	M	Frequency scale	N	M	Frequency scale	N
Advanced organization	3.23	Medium	12	2.25	Low	13
Selective attention	3.75	High	12	2.92	Medium	13
Directed attention	2.92	Medium	12	2.08	Low	13
Self-management	4	High	12	2.73	Medium	13
Monitoring	3.62	High	12	2.89	Medium	13
Self-evaluation	3.35	Medium	12	2.29	Low	13

M=mean; N=number

According to table 17, low-proficiency readers apply metacognitive strategies of advanced organization, directed attention and self-evaluation less frequently than high-proficiency readers. The means of these three subcategories of metacognitive strategies adopted by low-proficiency readers are 2.25, 2.08 and 2.29 respectively. All of them are between 1.5 and 2.4, so this result shows that they are generally not used by the low-proficiency readers. Strategies of selective attention, self-management and monitoring are sometimes used by the low-level readers because the frequency scale of these three strategies belong to medium use. As for high-proficiency readers, they adopt selective attention, self-management and monitoring in high frequency. The means of all these three strategies are between 3.5 and 4.4 which means that they are usually used by high-level readers. Strategies of advanced organization, directed attention and self-evaluation are sometimes used by the high-proficiency readers, because the frequency scale of these three strategies belongs to medium. In a word, high-proficiency readers use six subcategories of metacognitive reading strategies more frequently than those low-proficiency readers. Therefore, it can be concluded that metacogitive reading strategies have a great positive influence on the English reading comprehension tests.

Table 18: Frequency distribution of ten subcategories of cognitive reading strategies

	High-proficiency readers			Low-proficiency readers		
Cognitive strategies	M	Frequency scale	N	M	Frequency scale	N
Skimming	4.25	High	12	3.92	Medium	13
Prediction	3.58	High	12	1.92	Low	13
Analyzing	3.86	High	12	2.56	Medium	13
Inferring	3.67	High	12	2.36	Low	13
Translation	1.42	Low	12	2.92	Medium	13
Summarizing	3.00	Medium	12	2.38	Low	13
Elaboration	3.63	High	12	2.85	Medium	13
Repetition	3.50	High	12	3.00	Medium	13
Guessing	4.50	High	12	3.04	Medium	13
Note-taking	1.25	Low	12	1.87	Low	13

M=mean; N=number

According to table 18, low-proficiency readers apply cognitive strategies of prediction, inferring, summarizing and note-taking less frequently than the other six subcategories. Strategies of prediction, inferring, summarizing and note-taking belong to the low frequency scale, while the other six strategies belong to the medium frequency scale. The most frequently used strategy by high-proficiency readers is guessing with a mean of 4.5 which means that it is always or almost always used. The least frequently used strategy by both high-proficiency readers and low-proficiency readers is note-taking. The strategy of note-taking is never or almost never used by the high-proficiency readers and it is generally not used by the low-proficiency readers. It is worth to be noted that high-level readers use translation less frequently than low-level readers, which means that the strategy of translation might have a negative impact on English reading comprehension. The use of prediction and inferring cognitive reading strategies are significantly different between strong readers and weak readers. The strong readers use these two stratgeies in high frequency; however, the weak readers use them in low frequency. There also exists obvious differences in using analyzing, summarizing, elaboration, and guessing between the two groups. Among them, analyzing, elaboration and guessing are used in high frequency by high-proficiency readers; however, they are used in medium frequency by the low-proficiency ones.

To sum up, high-proficiency readers use metacoginitive and cognitive strategies more frequently than low-proficiency readers. This finding is consistent with that of Anderson's (2003). Anderson's study revealed that better readers use more cognitive reading strategies than poor readers. There exist significant differences in the use of metacognitive reading strategies between the two groups. The frequency scale of metacognitive reading strategies used by high-proficiency readers is high, while it is low as for low-proficiency readers. This result is also in accordance with Baker and Brown's (1984) result. They found that high achievers use metacognitive reading strategies with higher frequency than that of low achievers. Another scholar, Phakiti (2003) also found that sucessful readers are higher metacognitive strategy users than unsuccesful readers. Strong readers use all the six subcategories of metacognitive reading strategies more frequently than the weak readers. This finding is identical to Ryan's (1981) finding. He found that successful readers use metacognitive strategies more frequently and effectively than unsuccessful readers. In this study, as for the use of ten subcategories of cognitive reading strategies, it is found that translation and note-taking are applied more frequently by the low-proficiency readers than high-proficiency readers. In addition, both groups employ the strategies of repetition and skimming very frequently and both groups employ strategy of note-taking least frequently.

3.3 Analysis of the questionnaire for the teachers

The questionnaire for the teachers includes nine questions. The questions are designed to get the six teachers' responses in the following aspects: the teachers' understanding of the students' reading ability as well as the current situation of the students in using reading strategies (questions 1-3); teachers' understanding of the importance of reading strategies learning and teaching (questions 4-7); teachers' understanding of the current situation of instructing reading strategies in the classroom (questions 8 and 9). Six teachers who teach comprehensive English courses for sophomore English majors were invited to participate in the questionnaire.

3.3.1 The teachers' understanding of the general situation

Responses to question 1, 2 and 3 reflect how the teachers understand their students' reading ability and the general situation of how they use reading strategies.

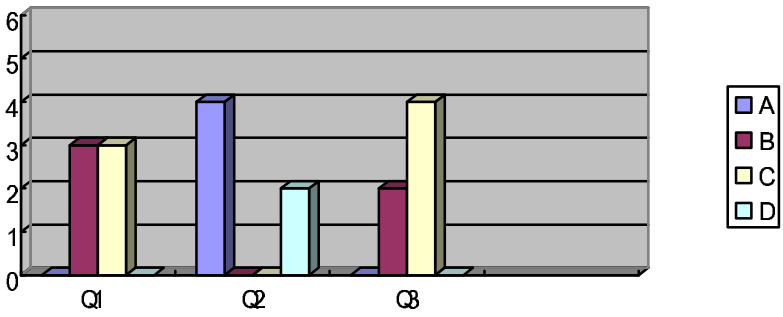

Table 19: The teachers' responses to the questions 1, 2 and 3 (Q=question)

From table 19, it can be seen that half of the teachers chose C to question 1 and think that their students' reading ability is average. The other half of the teachers chose B and think that their students' reading ability is good. None of the teachers think that their students' reading ability is very good or poor. The teachers' opinions toward question 1 show that a majority of the students' reading ability is regarded as medium level. As for question 2, four teachers chose A and the other two chose D. Responses to this question indicate that most teachers know the current situation of their students in using reading strategies; however, the other two teachers chose the answer "I do not know", which means that several teachers do not pay much attention to the use of reading strategies by their students. Question 3 is about to what extent the students have acquired the knowledge of reading strategies from the perspective of the teachers. Responses to question 3 indicate that two-thirds of the teachers think that their students only acquire a little knowledge of reading strategies. One-third of the teachers think that their student might have acquired some knowledge of reading strategies but not enough. None of the teachers think that their students have obtained enough knowledge of reading strategies.

3.3.2 Opinions about the importance of the learning and teaching of reading strategies

The teachers opinions about the importance of the learning and teaching of reading strategies are revealed by their responses to questions 4-7 in the following table.

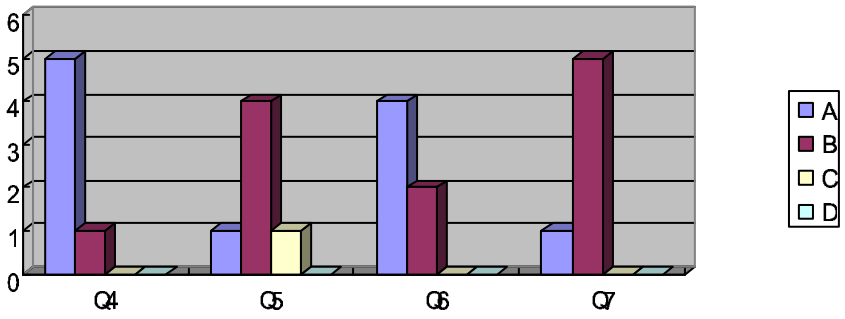

Table 20: The teachers' responses to the questions 4-7 (Q=question)

In table 20, it is shown that the overwhelming majority of the teachers chose A to question 4 and they think that a lack of using reading strategies will greatly impede students' achievements in English reading comprehension tests. The other teacher chose B and thinks that lack of adopting reading strategies will impede students' achievement in English reading comprehension tests but this influence is not such significant. In other words, all the teachers think that using reading strategies is important. This result is similar to that of Khonamri and Salimi (2010). They found that teachers believe that the use of reading strategies is important in reading comprehension tests. As for the responses to Q5, different teachers hold different opinions. One teacher chose A and thinks that reading strategies teaching is very important. Another four teachers chose B and think that it is important for teachers to teach reading strategies. The other one teacher thinks that it is not very important to teach reading strategies in class. This result reflects that teachers do pay some attention to the importance of teaching reading strategies, however, this awareness can be enhanced. From the teachers' response to question 6, it can be seen that all the teachers think that teaching of reading strategies can help students improve their reading comprehension proficiency. Carrel (1989) points out that reading strategies teaching help improve students' reading comprehension proficiency. Two-thirds of the teachers hold the view that it will greatly help students improve their reading proficiency. The result of question 7 reveals that all teachers who participated in this questionnaire think that it is necessary to teach reading strategies in the classroom. This finding is consistent with Chou's (2008) study. He found that EFL instructors believed that reading strategies are important in reading comprehension and it is necessary to teach reading strategies in class.

3.3.3 Teachers' understanding of the current situation of instructing reading strategies in the classroom

Questions 8 and 9 reflect teachers' self-evaluation of instructing reading strategies in classroom

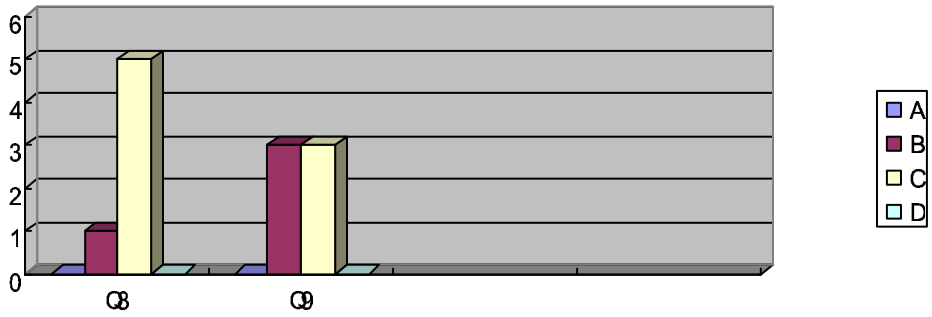

Table 21: The teachers' responses to questions 8 and 9 (Q=question)

The responses to question 8 show that a majority of teachers teach reading strategies occasionally in the classroom. The responses to question 9 indicate that three teachers know how to teach reading strategies in the classroom in general, and the other three teachers think that they only know little about how to teach reading strategies. These two questions reveal that teachers in college do not attach much importance to the teaching of reading strategies in the classroom though they realize the importance of using reading strategies. This result is similar to that of Khonamri and Salimi (2010). They found that there was no significant correlation between teachers' beliefs about the importance of reading strategies and their self-reported classroom practices of teaching reading strategies.

3.4 Pedagogical implications

According to the research results from the qustionnaire for the students and the questionnaire for the teachers, some suggestions on English reading teaching are presented.

As both the metacognitive and cognitive reading strategies play positive roles in English reading comprehension, teachers in college should raise their awareness of the importance of teaching these reading strategies in class so as to improve the students' reading abilities. Teachers should have a clear understanding of reading strategy use. They should not only teach their students the basic knowledge of various subcategories of metacognitive and

cognitive reading strategies but also teach them how to use them. Cunningham and Allington (1994) suggest that readers need to use necessary strategies when reading. These strategies include taking advantage of relevant background knowledge; predicting what will happen; self-monitoring and self-correction; making inferences; figuring out unknown words and so on. Thus, teachers are expected to attach much importance to the training of both major classes of reading strategies to help students apply these reading strategies efficiently. Previous researches have proved that training of reading strategies is effective to enhance the students' reading competency. According to Wang (2002), one of the main concerns in reading teaching is to train students' specific reading skills and strategies to help them become efficient readers. Teaching reading strategies is also supported by Carrell (1989) who argues that reading strategies can be taught and when they are taught, these strategies help improve students' performance in reading comprehension tests.

Weak readers need instruction on reading strategies more than strong ones. Teachers should remind them of the appropriate reading strategies or correct their strategies. For instance, the strategy of translation is usually adopted by low-proficiency readers; however, high-proficiency readers generally do not use it. Therefore, teachers can attempt to tell weak readers not to use translation strategy while doing reading comprehension tests. The strategies preferred by strong readers are inferring, analyzing, prediction, monitoring, self-management and self-evaluation, so these metacognitive and cognitive reading strategies can be encouraged to train and practice more in classroom reading activities. As Carrell (1989) points out, metacognitive strategy training does enhance L2 reading and it is significant to train students to use different strategies. Another researcher, Anderson (2003) argues that cognitive reading strategies increase students' comprehension. Therefore, teachers should teach both metacognitive strategies and cognitive strategies in the classroom.

4. Conclusion

This paper has examined the use of reading strategies by sophomore English majors. The following findings are summarized through this study.

Firstly, the frequency of using reading strategies is not high. According to the results of this study, the frequency scale of reading strategy use is moderate. It is found that the frequency of using cognitive strategies used by the students is almost equal to the use of metacognitive

strategies. The strategy of skimming is the most frequently used one in the cognitive strategy category, while the strategy of note-taking is generally not used by the students in the cognitive strategy category. In the metacognitive category, the strategy of self-management is the most frequently used one and directed attention is generally not used by the students. The sequences of 16 subcategories of reading strategies are skimming, guessing, repetition, self-management, selective attention, monitoring, elaboration, inferring, analyzing, summarzing, prediction, advanced organization, self-evaluation, directed attention, translation and note-taking. The metacognitive strategies of advanced organization, self-evaluation and directed attention are less adopted by the students compared with other reading strategies.

Secondly, both cognitive reading strategies and metacognitive reading strategies are positively correlated to reading achievements and the correlation is strongly significant. The Pearson correlation between cognitive reading strategies and English reading achievements is higher than the correlation of metacognitive reading strategies to reading achievements. It means that cognitive reading strategies correlate more significantly to reading achievements compared with metacognitive reading strategies. Inferring, guessing, self-evaluation, selective attention, self-management, prediction and analyzing strategies are significantly positively correlated to reading achievements, while translation and note-taking strategies are negatively correlated to reading achievements.

Thirdly, high-proficiency readers use metacoginitive and cognitive strategies more frequently than low-proficiency readers. There is a significant difference in the use of metacognitive reading strategies between the two groups. The frequency scale of metacognitive reading strategies used by high-proficiency readers is high, while it is low for low-proficiency readers. The least frequently used strategy by both high-proficiency readers and low-proficiency readers is note-taking.

Last but not least, according to the teachers' responses to reading strategies, it is found that teachers do not pay high attention to teaching reading strategies, and a large majority of the English teachers do not teach reading strategies in the classroom. Therefore, in order to improve students' reading proficiency, teachers should attach much importance to instructing various kinds of reading strategies in the classroom. Moreover, strategies that are preferred by good readers can be advocated to be trained more in the classroom reading activities to help poor readers improve their reading comprehension proficiency.

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Appendices

Appendix 1

Reading Comprehension Tasks of TEM4 (2006)

PART V READING COMPREHENSION (25 MIN)

In this section there are four passages followed by questions or unfinished statements, each with four suggested answers marked A, B, C and D. Choose the one that you think is the best answer. Mark your answers on your answer sheet.

TEXT A

In the case of mobile phones, change is everything. Recent research indicates that the mobile phone is changing not only our culture, but our very bodies as well.

First, let's talk about culture. The difference between the mobile phone and its parent, the fixed-line phone, is that a mobile number corresponds to a person, while a landline goes to a place. If you call my mobile, you get me. If you call my fixed-line phone, you get whoever answers it.

This has several implications. The most common one, however, and perhaps the thing that has changed our culture forever, is the "meeting" influence. People no longer need to make firm plans about when and where to meet. Twenty years ago, a Friday night would need to be arranged in advance. You needed enough time to allow everyone to get from their place of work to the first meeting place. Now, however, a night out can be arranged on the run. It is no longer "see you there at 8", but "text me around 8 and we'll see where we all are".

Texting changes people as well. In their paper, "Insights into the Social and Psychological Effects of SMS Text Messaging", two British researchers distinguished between two types of mobile phone users: the "talkers" and the "texters"-those who prefer voice to text messages and those who prefer text to voice.

They found that the mobile phone's individuality and privacy gave texters the ability to express a whole new outer personality. Texters were likely to report that their family would be surprised if they were to read their texts. This suggests that texting allowed texters to present a self-image that differed from the one familiar to those who knew them well.

Another scientist wrote of the changes that mobiles have brought to body language. There are two kinds that people use while speaking on the phone. There is

the “speakeasy”: the head is held high, in a self-confident way, chatting away. And there is the “spacemaker”: these people focus on themselves and keep out other people.

Who can blame them? Phone meetings get cancelled or reformed and camera-phones intrude on people’s privacy. So, it is understandable if your mobile makes you nervous. But perhaps you needn’t worry so much. After all, it is good to talk.

81. When people plan to meet nowadays, they

A. arrange the meeting place beforehand

B. postpone fixing the place till the last minute

C. seldom care about when and where to meet

D. still love to work out detailed meeting plans.

82. According to the two British researchers, the social and psychological effects are mostly likely to be seen on

A. talkers

B. the “speakeasy”

C. the “space maker”

D. texters

83. We can infer from the passage that the texts sent by texters are

A. quite revealing

B. well written

C. unacceptable by others

D. shocking to others

84. According to the passage, who is afraid of being heard while talking on the mobile？

A. Talkers

B. The “speakeasy”

C. The “space maker”

D. Texters

85. An appropriate title for the passage might be

A. The SMS Effect

B. Cultural Implication of Mobile Phone Use

C. Change in the Use of the Mobile

D. Body Lanugage and the Mobile Phone

TEXT B

Over the last 25 years, British society has changed a great deal-or at least many parts of it have. In some ways, however, very little has changed, particularly where attitudes are concerned. Ideas about social class-whether a person is "working-class" or "middle-class" --are one area in which changes have been extremely slow.

In the past, the working-class tended to be paid less than middle-class people, such as teachers and doctors. As a result of this and also of the fact that workers' jobs were generally much less secure, distinct differences in life-styles and attitudes came into existence. The typical working man would collect his wages on Friday evening and then, it was widely believed, having given his wife her "housekeeping", would go out and squander the rest on beer and betting.

The stereotype of what a middle-class man did with his money was perhaps nearer the truth. He was-and still is - inclined to take a longer-term view. Not only did he regard buying a house as a top priority, but he also considered the education of his children as extremely important. Both of these provided him and his family with security. Only in very few cases did workers have the opportunity （or the education and training） to make such long-term plans.

Nowadays, a great deal has changed. In a large number of cases factory workers earn as much, if not more, than their middle-class supervisors. Social security and laws to improve job-security, combined with a general rise in the standard of living since the mid-fifties of the 20th century, have made it less necessary than before to worry about "tomorrow". Working-class people seem slowly to be losing the feeling of inferiority they had in the past. In fact there has been a growing tendency in the past few years for the middle-classes to feel slightly ashamed of their position.

The changes in both life-styles and attitudes are probably most easily seen amongst younger people. They generally tend to share very similar tastes in music and clothes, they spend their money in having a good time, and save for holidays or

longer-term plans when necessary. There seems to be much less difference than in previous generations. Nevertheless, we still have a wide gap between the well-paid （whatever the type of job they may have） and the low-paid. As long as this gap exists, there will always be a possibility that new conflicts and jealousies will emerge, or rather that the old conflicts will re-appear, but between different groups.

86. Which of the following is seen as the cause of class differences in the past?

A. Life style and occupation

B. Attitude and income

C. Income and job security

D. Job security and hobbies

87. The writer seems to suggest that the description of ____is closer to truth?

A. middle -class ways of spending money

B. working-class ways of spending the weekend

C. working-class drinking habits

D. middle-class attitudes

88. According to the passage, which of the following is NOT a typical feature of the middle -class?

A. Desiring for security

B. Making long-term plans

C. Having priorities in life

D. Saving money

89. Working -class people's sense of security increased as a result of all the following factors EXCEPT

A. better social security

B. more job opportunities

C. higher living standard

D. better legal protection

90. Which of the following statement is INCORRECT?

A. Changes are slowly taking place in all sectors of the British society.

B. The gap between working -class and middle- class young people is narrowing.

C. Different in income will remain but those in occupation will disappear.

D. Middle-class people may sometimes feel inferior to working-class people.

TEXT C

For several days I saw little of Mr. Rochester. In the morning he seemed much occupied with business, and in the afternoon gentlemen from the neighborhood called and sometimes stayed to dine with him. When his foot was well enough, he rode out a great deal.

During this time, all my knowledge of him was limited to occasional meetings about the house, when he would sometimes pass me coldly, and sometimes bow and smile. His changes of manner did not offend me, because I saw that I had nothing to do with the cause of them.

One evening, several days later, I was invited to talk to Mr. Rochester after dinner. He was sitting in his armchair, and looked not quite so severe, and much less gloomy. There was a smile on his lips, and his eyes were bright, probably with wine. As I was looking at him, he suddenly turned, and asked me, "Do you think I'm handsome, Miss Eyre?"

The answer somehow slipped from my tongue before I realized it: 'No, sir."

"Ah, you really are unusual! You are a quiet, serious little person, but you can be almost rude."

"Sir, I'm sorry. I should have said that beauty doesn't matter, or something likes that."

"No, you shouldn't! I see, you criticize my appearance, *and then you stab me in the back*! You have honesty and feeling. There are not many girls like you. But perhaps I go too fast. Perhaps you have awful faults to counterbalance your few good points."

I thought to myself that he might have too. He seemed to read my mind, and said quickly," yes, you're right. I have plenty of faults. I went the wrong way when I was twenty-one, and have never found the right path again. I might have been very different. I might have been as good as you, and perhaps wiser. I am not a bad man, take my word for it, but I have done wrong. It wasn't my character, but circumstances which were to blame. Why do I tell you all this? Because you're the sort of person

people tell their problems and secrets to, because you're sympathetic and give them hope."

It seemed he had quite a lot to talk to me. He didn't seem to like to finish the talk quickly, as was the case for the first time.

"Don't be afraid of me, Miss Eyre." He continued, "You don't relax or laugh very much, perhaps because of the effect Lowood school has had on you. But in time you will be more natural with me, and laugh, and speak freely. You're like a bird in a cage. When you get out of the cage, you'll fly very high. Good night."

91. At the beginning Miss Eyre's impressions of Mr. Rochester were all EXCEPT_____.

A. busy

B. sociable

C. friendly

D. changeable

92. In "……and all my knowledge him was limited to occasional meetings about the house…" (the second paragraph), the word about means_____.

A. around

B. on

C. outside

D. concerning

93. Why did Mr. Rochester say "…and then you stab me in the back!" (the seventh paragraph)?

A. Because Jane had intended to kill him with a knife.

B. Because Jane had intended to be more critical.

C. Because Jane had regretted having talked to him.

D. Because Jane had said something else to correct herself.

94. From what Mr. Rochester told Miss Eyre, we can conclude that he wanted to_____.

A. tell her all his troubles

B. tell her his life experience

C. change her opinion of him

D. change his circumstances

95. At the end of the passage, Mr. Rochester sounded_____.

A. rude

B. cold

C. friendly

D. Encouraging

TEXT D

The ideal companion machine the computer would not only look, feel, and sound friendly but would also be programmed to behave in a pleasant manner. Those qualities that make interaction with other people enjoyable would be imitated as closely as possible, and the machine would appear to be charming, and easygoing. Its informal conversation style would make interaction comfortable, and yet the machine would remain slightly unpredictable and therefore interesting. In its first encounter it might be somewhat hesitant, but as it came to know the user it would progress to a more relaxed and intimate style. The machine would not be a passive participant but would add its own suggestions, information, and opinions; it would sometimes take the initiative in developing or changing the topic and would have a personality of its own.

Friendships are not made in a day, and the computer would be more acceptable as a friend if it imitated the gradual changes that occur when one person is getting to know another. At an appropriate time it might also express the kind of affection that stimulates attachment and intimacy. The whole process would be accomplished in a subtle way to avoid giving an impression of over-familiarity that would be likely to produce irritation. After experiencing a wealth of powerful, well-timed friendship indicators, the user would be very likely to accept the computer as far more than a machine and might well come to regard it as a friend.

An artificial relationship of this type would provide many of the benefits that people obtain from interpersonal friendships. The machine would participate in interesting conversation that could continue from previous discussions. It would have a familiarity with the user's life as revealed in earlier contact, and it would be understanding and good-humored. The computer's own personality would be lively

and impressive, and it would develop in response to that of the user. With features such as these, the machine might indeed become a very attractive social partner.

96. Which of the following is NOT a feature of the ideal companion machine?

A. Active in communication

B. Attractive in personality

C. Enjoyable in performance

D. Unpredictable in behavior

97. The computer would develop friendships with humans in a (n) _____way.

A. quick

B. unpredictable

C. productive

D. inconspicuous

98. Which of the following aspects is NOT mentioned when the passage discusses the benefits of artificial relationships?

A. Being able to pick up an interesting conversation.

B. Being sensitive to earlier contact.

C. Being ready to learn about the person's life.

D. Having a pleasant and adaptable personality.

99. Throughout the passage, the author is _____in his attitude toward the computer

A. favorable

B. critical

C. vague

D. hesitant

100. Which might be the most appropriate title of the passage?

A. Artificial relationships

B. How to form intimate relationships

C. The affectionate machine

D. Humans and computers

Appendix 2

Questionnair for students (Chinese version)

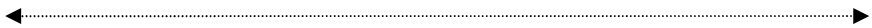
阅读策略使用调查表

班级　　年龄　　学号　　性别

同学你好，本问卷旨在了解你在做英语阅读理解时使用阅读策略的一些情况，你只需如实选择相应的数字即可。本问卷答案无对错之分，谢谢你们的合作。

说明：请仔细阅读下列每句话并选择你在做阅读理解时使用不同策略的频率。1 代表从不使用该策略，2 代表很少使用该策略，3 代表有时使用该策略，4 代表通常使用该策略，5 代表总是使用该策略。请把相应的数字写在每个策略的前面。

从不　很少　有时　通常　总是



1　2　3　4　5

使用频率	题号	策略
	1	在做阅读试题之前，我先计划该做些什么
	2	我确信自己对阅读测试任务的要求已清楚
	3	我明白阅读任务的目的
	4	我确信自己已明白该做什么以及如何做
	5	在做阅读试题之前，我先快速翻阅一下试题
	6	在阅读文章之前，我从问题入手，将问题熟记于心，然后注意文章中相关信息
	7	我试着分析哪些信息重要，哪些不重要，以便阅读时集中读重要部分
	8	我试着快速浏览篇章和任务的内容但并不是每个单词都去读，以便找出相关信息
	9	在我阅读篇章期间，我会思索下文内容是什么
	10	我试着去分析篇章和任务之间的关系
	11	我试着对篇章中的隐含意义做出解释
	12	阅读过程中，我边看边把篇章、测试任务或问题在心里翻译成母语
	13	我对篇章中的主要信息进行总结

	14	我把篇章或测试任务中的信息与自己的先前知识或经验联系起来
	15	当我感觉没有理解篇章或测试任务时我会对它们重读
	16	阅读过程中我会用下划线或圆圈标记重要内容
	17	我根据语境或上下文猜测不认识单词的意义
	18	在阅读篇章和做题期间，我利用了自己学过的语法知识
	19	我根据词根或词缀猜测不认识单词的意义
	20	在阅读过程中，我根据内容的发展不断调整先前对篇章内容的预测
	21	在做阅读试题期间，我意识到时间的限制，会根据阅读目的和任务调整阅读
	22	在阅读过程中，我会划出每段中心句
	23	在做阅读试题期间，我知道还有多少篇章和测试任务还没做
	24	我检查自己是否已对篇章和测试任务理解
	25	在做阅读试题期间，我检查自己的做题情况和进度
	26	在阅读过程中，我会停下来想想自己是否已理解所读内容
	27	在阅读过程中，我运用原有知识来理解文中提供的新信息
	28	在做阅读期间，我会记下关键词或句子
	29	我会利用篇章中诸如 first, second, however, but, because 等过渡词分析篇章主要观点之间的关系
	30	在做阅读期间，我意识到接下来的阅读任务
	31	在做阅读期间，我会根据已知信息推测未知信息
	32	在做阅读试题期间，我试着区分出简单题与难题，并花及较多时间在难题上
	33	阅读中遇到很长的句子很难理解时，我会试着分析句子的语法结构，以便更好理解
	34	当觉得对篇章有误解或做错题后，我会立即纠正
	35	做完阅读，我会评价自己的计划和目标做出是否达到
	36	做完阅读，我会对自己的表现作出评价
	37	我对自己的理解或做题情况进行再次检查
	38	我知道自己在做阅读试题期间何时感到焦虑或紧张
	39	我会找出自己在阅读过程中的不足，并思考如何改正以提高阅读水平
	40	做完阅读试题，我对自己在阅读过程中所使用的策略作出评价

Appendix 3

Questionnarie for students (English version)

Questionnaire on the use of reading strategies

Class: Age: Student Number: Gender:

Directions: Listed below are statements about what you do when you were doing reading comprehension tests. Read each statement carefully and indicate how you thought while you were doing reading comprehension tests. Five numbers follow each statement (1, 2, 3, 4, 5) and each number means the following:

1 means I never do this.

2 means I do this rarely.

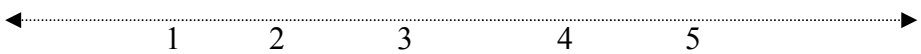
3 means I sometimes do this.

4 means I usually do this.

5 means I always do this.

After reading each statement, write down the number 1, 2, 3, 4,or 5 which corresponds to your own situation in the column of degree. Please note that there are no right or wrong answers to the statements. Thank you all for your kind cooperation!

Never Rarely Sometimes Usually Always



1 2 3 4 5

Degree	No.	Reading strategies

	1	I set plans on how to complete the test
	2	I determine what the test tasks or questions required me to do
	3	I am aware of the objective of the reading tasks
	4	I make sure I know what is need to be done and how to do it
	5	I skim the text quickly to have a general understanding of the given text
	6	I pay attention to the questions and memorize them before reading the given text
	7	I know what to read closely and what to ignore
	8	I read the text quickly to find out the relevant information of reading tasks
	9	I predict the content of the upcoming passage or section while reading
	10	I analyze the relationship between the given reading text and reading tasks
	11	I attempt to understand the implicit meaning of the given text
	12	I translate what I have read into Chinese
	13	I summary the important information as well as the main ideas of the text
	14	I connect what I have read with my prior experience
	15	When the given text or questions became difficult to understand, I reread them to increase my understanding
	16	I underline or circle key words or key sentences while reading
	17	I guess the meaning of unknown words or phrases according to the context or text clues
	18	I take advantage of the grammar knowledge I have learned to analyze sentences so as to help get the meaning
	19	I guess the meaning of unknown words according to their roots or affix
	20	I revise the anticipated information based on text content
	21	I adjust reading speed on the basis of different reading purposes or reading tasks
	22	I mark the topic sentences of every paragraph
	23	I am aware of how much of test remained to be completed
	24	I monitor the understanding of the reading materials and reading tasks
	25	I keep track of my own progress to complete the questions on time
	26	I pause time to time and think whether I have understood the contents I have read
	27	I relate my prior knowledge to new information so as to better understand the given reading materials
	28	I take notes when reading to help memorize useful information
	29	I make the use of transitional words, such as first, second, however, but, because and so on to help understand the logical relations among the main points in the text
	30	I am aware of my ongoing reading tasks
	31	I use the available clues or information to guess the new information
	32	I distinguish the easy and difficult questions and spend much more time on difficult reading tasks
	33	When the sentences are long and hard to understand, I try to analyze the structure of sentences to help better understand meaning
	34	I correct mistakes immediately when I think I am misunderstanding of the text or tasks
	35	I evaluate whether the reading plans are achieved
	36	I evaluate my own performance and progress while completing the test
	37	I check the answers of reading tasks carefully before submitting the test
	38	I am aware of my nerves or anxiety while doing the reading tasks
	39	I try to find out my weakness in reading activity, and think how to improve my reading efficiency
	40	I evaluate the effectiveness of strategies I used while doing the reading tasks

Appendix 4

Questionnaire for teachers

Questionnaire on opinions about reading strategies teaching

Teaching experience: Gender:

Directions: There are ten questions in this questionnaire. For each question, four choices marked A, B, C and D will be offered. Please tick the option that corresponds to your opinion for each of them.

1.What do you think of the reading ability of the majority of the students in your classes?

A. Very good B. Good C. Average D. Poor

2. How do you think the students in your classes use reading strategies?

A. A large majority of students use reading strategies while doing reading comprehension test

B. Some students use reading strategies while doing reading comprehension test

C. Very few students use reading strategies while doing reading comprehension test

D. I do not know

3. Do you think the students in your classes have acquired knowledge of reading strategies?

A. Yes, enough B. Some but not enough C. A little D. Not at all

4. Do you think lack of using reading strategies will impede students' achievement in reading comprehension test?

A. Greatly B. Not so much C. A little D. Not at all

5. Do you think reading strategies teaching is important?

A. Very important B. Important C. Not so important D. Hardly important

6. Do you think reading strategies teaching helps students improve reading comprehension proficiency?

A. Greatly help B. Some help C. A Little help D. No help at all

7. Do you think it is necessary to teach reading strategies in class?

A. Very necessary B. Necessary C. Not so necessary D. Not necessary at all

8. How often do you teach reading strategies in classroom?

A. Always B. Sometimes C. Rarely D. Never

9. Do you think you know how to teach reading strategies in class?

A. Yes, definitely B. Yes, but not so much C. A little D. Have no idea