

# A Research on Reading Strategies among Non-English Major Postgraduates

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## Abstract

As a very important skill both in English teaching and learning, reading strategy has been emphasized at home and abroad for a long time. Many scholars and teachers make research on undergraduates of English major or non-English major. However, the postgraduates are often neglected. Actually, it is also imperative to make a study among postgraduates of non-English majors, getting the information of their use of reading strategies and giving some useful suggestions to them. Therefore, this paper makes a quantitative study among 40 postgraduates from College of Mechanical Engineering in Chang'an University. This study shows that postgraduates of non-English major in Chang'an university do not frequently use reading strategies to improve their reading speed and proficiency. And there is a big difference between the successful learners and unsuccessful learners in terms of the use of reading strategies.

**Keywords:** Non-English major postgraduates, learning strategies, reading strategies

## 1. Introduction

Reading is one of the most important language skills for Chinese EFL teaching and learning. For one thing, reading is the main source of language input and it is very necessary to improve other language skills like speaking and writing. For another, it has the high proportion in CET-4 and CET-6 (College English Test Band 4 and Band 6) in China. After the psycholinguistic model being proposed, reading has been regarded as an interactive process rather than static one (Goodman, as cited in Liu, 2001). As a result, the focus of reading research is shifted from the reading result to the reading process, thereby reading strategies become a key issue. So many linguists have already paid much attention to the reading strategies at home and abroad for a long time. From the 1970s, many strategies have been used in teaching to improve the reading speed, such as skimming and scanning. For example, Block (1986) divides the reading strategies into two categories and Lv and Tu (1998) make an investigation of reading strategies on non-English major undergraduates.

There are so many researches which are conducted out among the undergraduates of English major or non-English major (Sheorey & Mokhtari, 2002; Yu & Wang, 2003; Mokhtari & Richard, 2004; Liu, 2002). However, the postgraduates of non-English major are often neglected and few scholars do an investigation among them. Actually, reading is also very important for them, since they need to read lots of foreign literatures and pass the CET-6.

Improving reading proficiency is imperative for students and it is beneficial to their daily reading as well as examination. Researchers always emphasize the importance of classroom teaching and teachers' guidance of reading practice. Actually, it is students themselves that should be responsible for their own study.

This study will make a research among the postgraduates of non-English major, aiming to find out their situation of using reading strategies and compare the difference of the use of reading strategies between successful learners and unsuccessful learners. This study aims to have some pedagogical significance, especially for postgraduates, helping them to consciously use the reading strategies to improve their reading proficiency.

## 2. Literature Review

### 2.1 An introduction to Reading Strategy

Language learning strategy refers to "the processes and actions that are consciously utilized by language learners to help them to learn a language more effectively" (Cohen & Macaro, 2007). O'Malley and Chamot (1990)

divide the learning strategies into meta-cognitive strategy, cognitive strategy and social/affective strategy. For them, cognitive strategy is the most important one and then the meta-cognitive strategy. Therefore, the questionnaire in this study will mainly focus on cognitive strategy and meta-cognitive strategy.

Reading strategies refer to “behavior process taken by the learner to solve the difficulties in reading” (Johnson & Johnson, as cited in Dong, 2009). Reading strategies are important parts of learning strategies. The researches of reading strategies are conducted on the basis of the theoretical framework of cognitive linguistics, psycholinguistics, the second language acquisition and so on. There is no unanimous definition and classification of reading strategies. At the beginning, reading strategies are regarded as the static and passive skills used by the readers (Langer, as cited in Wan, 2013). Then, people consider reading strategies to be flexible, changing with the contents of the article and the reading purposes (Wallace, as cited in Wan, 2013). Later, reading strategies are treated as cognitive skills used to solve the problems which may occur in the reading process (Aarnoutse & Schellings, 2003).

Block (1986) divides the reading strategies into two categories: comprehensive strategies and partial strategies. Comprehensive strategies include predicating, identifying the structure, using common sense, monitoring understanding, and so on. Partial strategies refer to paraphrase, re-read, solving the vocabulary problem, etc.

Oxford (1990) puts forward the most comprehensive learning strategies (as cited in Ellis, 1999). In his system, the cognitive strategies refer to summary, explanation, analysis, using the context to predict, and so on. Comprehensive strategies include analogy, guessing, consulting dictionary, and so on. Meta-cognitive strategies include concentrating, self-monitoring, and correcting errors during reading. Affective strategies include self-encouraging, reducing anxiety and so on. Social strategies are involved in the reading process where the cooperation is needed.

### *2.2 Related Studies on Reading Strategies at Home and Abroad*

Since the late 1970s, the research of reading strategies is closely connected with the classroom teaching of second and foreign language. Some related empirical studies are carried out, including the research of students' use of reading strategies and the comparative study between the successful language learners and unsuccessful learners in terms of the use of reading strategies.

Wen (1995) makes a case study to analyze the difference between one pair of successful and unsuccessful English learners in terms of their reading strategies. Lv and Tu (1998) make an investigation and comparative study of reading strategy among 300 non-English major undergraduates in Tsinghua University.

Sheorey and Mokhtari (2002) conduct a research among 105 undergraduates to get the information of the use of meta-cognitive strategies during reading. They find that the female students more frequently use the reading strategies than male students. In China, Zhong (2001) make a research on 84 non-English major freshmen to find out the relationship between the meta-cognitive strategies and the reading proficiency. The results show that the training of meta-cognitive strategies in classroom teaching is effective to help students improve reading proficiency. Yu Ping & Wang Rongyuan (2003) also make the similar research and get the similar results. Liu Ying (2009) makes an empirical study on a ten-week meta-cognitive reading strategy training for less efficient non-English major sophomores and aims to provide some implications for EFL teaching and learning in Chinese university.

## **3. Methodology**

This paper will make a quantitative study to investigate the situation of the strategy use of non-English major postgraduates and show the difference between the successful and unsuccessful learners.

### *3.1 Research Questions*

The study attempts to answer the following two questions:

- (1) What is the overall situation of non-English major postgraduates' use of reading strategies?
- (2) What are the differences between the successful and unsuccessful learners in terms of the use of reading strategies?

### *3.2 Participants*

40 non-English major postgraduates from College of Mechanical Engineering in Chang'an University participate in this study. They are selected randomly in two classes with the same major. All of them are in the first year of their postgraduate study.

There are two reasons why non-English major postgraduates from first year are selected as subjects. For one

thing, they have to read a large number of foreign literatures during their postgraduate study. Improving their reading proficiency is very imperative. Therefore, it is quite necessary to know their situation of the use of reading strategies and give some suggestions according to their weaknesses. For another, there are no English courses in the second or third year of their postgraduate study. So they have to study English by themselves and the reasonable suggestions are very helpful for them.

The Table 1 presents the basic information of the participants.

Table 1. Participants' information

|                                   |             |    |     |
|-----------------------------------|-------------|----|-----|
| Postgraduate Entrance Examination | 58 or above | 6  | 15% |
|                                   | Under 58    | 34 | 85% |
| College English Test              | CET-4       | 37 | 93% |
|                                   | CET-6       | 11 | 28% |

According to the score of Postgraduate Entrance Examination and whether pass the CET-6, 40 participants are divided into two groups. Those who have passed CET-6 or the score is 58 or above 58 are grouped as the successful learners (SL), while the rest of them are grouped as the unsuccessful learners (UL). The two groups will be compared in the following study.

### 3.3 Data Collections and Data Analysis

The instrument used in this study is a questionnaire (see Appendix). The questionnaire is cited from Dong Juxia (2009) and some revision has been made to adapt to this study. Dong Juxia's questionnaire is designed according to O'Malley and Chamots' definition and classification of learning strategies and Nuttall's classification of reading strategies. This questionnaire is written in Chinese for the better understanding. It consists of 34 questions and meta-cognitive and cognitive strategies are involved. After collecting the data, the EXCEL is used to analyze the raw data and get the mean of each item.

In this study, the 5-point Likert scale is employed, which is designed according to Oxford's Frequency Scale (see table 3-2). Table 3-3 is the detailed structure of the questionnaire in this study.

Table 2. Frequency scale

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

Before carrying out the investigation, some explanation and guidance were given to the participants in order to ensure the efficiency of the study. 40 questionnaire papers are distributed and all of them are collected back and valid.

Table 3. The structure of the questionnaire

| Strategy categories       | Sub-categories              | Detailed description   | Corresponding questions |
|---------------------------|-----------------------------|--|-------------------------|
| Meta-cognitive strategies | Self-consciousness          | Being aware of the importance of reading   | 1                       |
|                           | Working out plan by oneself | Having one's own study goals and reading plan  | 2, 3                    |
|                           | Focusing one's attention    | Analyzing the reading task and concentrating on the contents                               | 4, 5                    |
|                           | Self-monitoring             | Adjusting the reading strategies, reading speed and controlling time                       | 6, 7, 8, 9              |
|                           | Self-evaluation             | Objectively evaluating the effectiveness of reading results                                | 10,11,12,13, 14,15      |
|                           | Skimming                    | Reading each paragraph quickly to get the main idea  | 16,17,18,19             |
|                           | Scanning                    | Finding specific information quickly   | 20,21                   |
| Cognitive strategies      | Structure analysis          | Analyzing the structure within a sentence, between the sentences or between the paragraphs | 22,23,24,25             |
|                           | Prediction                  | predicting the contents according to the title and keeping modifying                       | 26,27                   |
|                           | Word-attack skill           | Guessing the meaning of new words through affix or context                                 | 28,29,30,31, 32         |
|                           | inference                   | Inferring the writer's real intention and attitudes  | 33,34                   |

#### 4. Results and Discussion

##### 4.1 The Overall Situation of Usage of Reading Strategies

###### 4.1.1 The Usage of Overall Strategies

Table 4 shows the overall situation of non-English major postgraduates' use of meta-cognitive strategies and cognitive strategies.

Table 4. The results of overall strategies

| Strategy categories       | Mean | Frequency scale | Overall Mean |
|---------------------------|------|-----------------|--------------|
| Meta-cognitive strategies | 2.63 | Medium          |              |
| Cognitive strategies      | 2.68 | Medium          | 2.66         |

According to Table 4, the overall mean of the two strategies is 2.66, the frequency scale is medium. And the mean of cognitive strategies is higher than the mean of meta-cognitive strategies. This table shows that postgraduates use cognitive strategies more frequently than meta-cognitive strategies. This result is in accord with the results of the related researches made at home and abroad.

###### 4.1.2 The Usage of Meta-cognitive Strategies

Table 5 shows the situation of non-English major postgraduates' use of meta-cognitive strategies.

Table 5. The results of meta-cognitive strategies

| Strategy categories       | Sub-categories              | Mean | Frequency scale |
|---------------------------|-----------------------------|------|-----------------|
| Meta-cognitive strategies | Self-consciousness          | 3.60 | High            |
|                           | Working out plan by oneself | 2.23 | Low             |
|                           | Focusing one's attention    | 2.53 | Medium          |
|                           | Self-monitoring             | 2.30 | Low             |
|                           | Self-evaluation             | 2.52 | Medium          |

From the Table 5, it can be found that the strategy of self-consciousness is in a high level of frequency scale, that is to say, majority of postgraduates know the importance of improving reading proficiency. However, the strategy of self-monitoring and making reading plan are in a low level frequency scale, which means that students do not have extra reading plans after the class and when they read materials, they are not able to adjust their reading strategies according to different materials and different contents. The strategy of self-evaluation is in a medium level of frequency scale. It means that sometimes students can make a correct and objective evaluation of their English study by themselves. The reflection is very important for them to make progress and they need to know their own reading process and the usage of reading strategies.

Overall, the situation of the use of meta-cognitive strategies is not satisfying. The successful language learners are capable of using the meta-cognitive strategies and monitoring their reading procedures (Lv & Tu, 1998). Therefore, the postgraduates should make extra reading plan and pay attention to their reading process and reading results and learn how to adjust their reading strategies during the reading procedures.

#### 4.1.3 The Usage of Cognitive Strategies

Table 6 shows the situation of non-English major postgraduates' use of cognitive strategies.

Table 6. The results of cognitive strategies

|                      |                    |      |        |
|----------------------|--------------------|------|--------|
| Cognitive strategies | Skimming           | 2.56 | Medium |
|                      | Scanning           | 2.73 | Medium |
|                      | Structure analysis | 2.54 | Medium |
|                      | Prediction         | 3.13 | Medium |
|                      | Word-attack skill  | 2.67 | Medium |
|                      | Inference          | 2.30 | Low    |

Among the six cognitive strategies, the strategy of scanning and prediction are more frequently used than the other four strategies. That is to say, postgraduates usually have a habit of guess the main idea of a article through the title and they are able to neglect some unimportant details and find the specific information quickly.

As for the structure analysis, the frequency is relatively low. Students sometimes use it but they do not pay much attention to the relationship between the paragraphs or the structure of the passage. As for the word-attack skill, the frequency is medium. It means that students know the importance of the context and use it to guess the meaning of those unknown words. It is inevitable to encounter some new words during reading and in most cases, it is not necessary to look up the every new word. Therefore, guessing the meaning of the words by context or affix is a good choice.

The mean of the strategy of inference is just 2.3 and the frequency is low. That is to say, students are not frequently use the background knowledge to infer unstated opinions or find out the implied meanings.

In general, postgraduates indeed use some cognitive reading strategies to improve the reading speed and efficiency. However, the frequency is not high and they should pay more attention to these cognitive reading strategies in the future.

#### 4.2 Comparison of the Frequency of Reading Strategies between SL and UL

Table 7 presents the difference of the use of reading strategies between successful learners (SL) and unsuccessful

learners (UL).

Table 7. The difference between SL and UL

| Strategy categories       | Successful Learners |                 | Unsuccessful Learners |                 |
|---------------------------|---------------------|-----------------|-----------------------|-----------------|
|                           | Mean                | Frequency scale | Mean                  | Frequency scale |
| Meta-cognitive strategies | 3.37                | Medium          | 1.89                  | Low             |
| Cognitive strategies      | 3.44                | Medium          | 1.92                  | Low             |
| Overall strategies        | 3.41                | Medium          | 1.91                  | Low             |

There is a big difference of the mean of the overall strategies between the SL and UL. The mean of SL is 3.41, which is in a medium level of frequency, while The mean of UL is only 1.91, which is in a low level of frequency. From the statistics, it can be inferred that the successful learners usually or sometimes use the reading strategies when reading while the unsuccessful learners seldom use the reading strategies when reading. Both the successful learners and unsuccessful learners use the cognitive strategies more frequently than the meta-cognitive strategies. The successful learners consciously use the cognitive strategies like scanning and prediction to improve their reading speed and proficiency. Therefore, they could get the higher score in the examination. However, both the successful learners and unsuccessful learner do not use the reading strategies very frequently.

According to O'Malley and Chamot (1990), cognitive strategies, which invoked mental manipulation or transformation of materials or tasks, are used to enhance comprehension, acquisition, or retention. Qin Xiaoping (1996) thinks that those language learner with the low language proficiency are more likely to use cognitive strategies and pay much attention to the learning behavior and process. From this perspective, it can be concluded that postgraduates in Chang'an University are with the relatively low English proficiency.

Meta-cognitive strategies are involved thinking about (or knowledge of) the learning process, planning for learning, monitoring learning while it is taking place, or self-evaluation of learning after the task had been completed (O'Malley & Chamot, 1990). Meta-cognitive strategies are very important for language learners. Many Chinese and foreign scholars have declared that through the training of students' meta-cognitive strategies, students' reading proficiency could be improved a lot (Sheorey & Mokhtari, 2002; Zhang Hong, 2001; Yu Ping & Wang Rongyuan, 2003). Table 4-1 shows that the frequency of the meta-cognitive strategies is not high. Therefore, postgraduates in this school should be trained to use the mete-cognitive strategies to monitor their reading practice and gradually improve their English proficiency.

## 5. Conclusion

### 5.1 Conclusion of the Study

By means of quantitative study, this paper makes a research on reading strategies among non-English major postgraduates. According to the results of the questionnaire,

- (1) the postgraduates of non-English major in Chang'an University do not frequently use the meta-cognitive strategies or cognitive strategies when they do reading practice. Compared with the meta-cognitive strategies, cognitive strategies are more likely to be used.
- (2) among the five meta-cognitive strategies, the frequency scale of "the self-consciousness" and "focusing the attention" are relatively high. Among the six cognitive strategies, students use "prediction" and "scanning" more frequently.
- (3) there is a big difference between the successful learners and unsuccessful learners in terms of the use of reading strategies. Unsuccessful learners seldom use the reading strategies.

In conclusion, postgraduates of non-English major in Chang'an university do not frequently use the reading strategies to improve their reading speed and proficiency, especially those unsuccessful learners. Therefore, the teachers should pay much attention to those reading strategies in classroom teaching and help students to develop good habit of using these strategies consciously during reading.

### 5.2 Limitations and Suggestion for Further Research

Clearly, there are some limitations in this study. First, the participants are not varied in terms of the colleges they

come from. Further more, the size of the sample is too small, as just 40 non-English major postgraduates participate in this study. Future researchers could do this study with more participants so that the results would be more convincing. Second, this paper just makes a quantitative study by means of questionnaire. The future research could combine the quantitative study with the qualitative study to make the research results more comprehensive.

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## Appendix

Questionnaire about the Reading Strategies of Non-English Major Postgraduates

The following questionnaire is designed for research on the reading strategies of Non-English Major Postgraduates. Please answer each question honestly and frankly according to your own opinion or learning experience. All the data collected will be highly confidential and will be used for the research only.

### I . Background Information

CET-4/CET-6: \_\_\_\_\_

Scores of Postgraduate Entrance Examination: \_\_\_\_\_

### II. Reading Strategies

Please read each statement and write down the number that best describes you in the bracket. The numbers stand for the following responses:

- 1=This statement is never or almost never true of me
- 2=This statement is usually not true of me
- 3=This statement is somewhat true of me
- 4=This statement is usually true of me
- 5=This statement is completely or almost completely true of me

- ( ) 1. I completely know the importance of improving English reading ability.
  - ( ) 2. I not only can finish the reading tasks assigned by my teacher, but also can make detailed reading plans.
  - ( ) 3. I can choose suitable reading materials by myself.
  - ( ) 4. I have the habit of drawing a line or marking to help me focus on the important contents.
  - ( ) 5. I pay attention to the printing feature and judge the main information by this.
  - ( ) 6. I can reflect on my understanding during the reading process.
  - ( ) 7. I can design questions during reading and find answers step by step.
  - ( ) 8. I can monitor the reading strategies I have used and make some adjustment.
  - ( ) 9. I can monitor and adjust my reading speed.
  - ( ) 10. I can evaluate my reading effect objectively.
  - ( ) 11. I have my own understanding of the ideas of material not completely accept.
  - ( ) 12. I summarize and evaluate the effectiveness of my reading strategies after reading.
  - ( ) 13. I evaluate whether the reading materials really meet my reading demand and objectives after reading.
  - ( ) 14. I evaluate the reading results after reading.
  - ( ) 15. I find my weakness and think about how to improve it.
- When I reading a passage
- ( ) 16. I skim the whole passage quickly to get the main idea.
  - ( ) 17. I usually find the theme of each paragraph before I read carefully.
  - ( ) 18. I carefully read the beginning and ending of the passage when I skim the passage.
  - ( ) 19. I neglect the unimportant points.
  - ( ) 20. I use the way of scanning to find the related information quickly.
  - ( ) 21. I try my best to ensure the accuracy of the information I have get when I improve my reading speed.
  - ( ) 22. I pay attention to the logical relationships among paragraphs.

- ( ) 23. I pay attention to the logical relationships between sentences.
  - ( ) 24. I can analyze the structure of the passage.
  - ( ) 25. I can identify the writing method of the passage, such as contrastive and comparative.
  - ( ) 26. I predict the content of the passage according to the title.
  - ( ) 27. I revise my prediction according to what I have read during reading process.
- When I meet the new words
- ( ) 28. I can guess the meaning according to the context.
  - ( ) 29. I notice the morphology and infer the meaning according to it.
  - ( ) 30. I neglect the unknown words.
  - ( ) 31. I can notice the information of other form than written language and infer the meaning of new words according to it.
  - ( ) 32. I look up the dictionary when I meet the new words.
  - ( ) 33. I use the background information to help me understand the passage.
  - ( ) 34. I infer the writer's real intention and attitudes according to the context.

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