

On Relationship between Factors and the Use of Reading Strategies

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Abstract—This paper presents the course of study, including three research questions; subjects; instrument and procedure, by which analyzes the relationship between factors such as age, sex, motivation. The older and the younger should be differentiating strategy instruction. Boy students are more likely to translate into Chinese to but girl students prefer to analyze the grammatical structures. Motivation does have important influence on students' use of reading strategies.

Index Terms—relationship, factors, reading strategies

I. THE RESEARCH QUESTION

The research questions in present study concern the relationship between the students' reading strategies and their reading comprehension in study English as a second language. The specific reading comprehension strategies used by the students will be investigated. More special aims of this experiment are to deal with at least three following key questions:

- (1) What is the relationship between age and the use of reading strategy?
- (2) Are there any differences in using reading strategy by different gender?
- (3) What is the relationship between motivation and the use of reading strategy?

The main concern of the study is English majors and adult students majoring in English. Although a number of studies have been conducted in China to investigate the learning strategies of the learners who are learning English as a second language, most of them focus on students who major in English as normal ones. The limitations are evident in these researches, for instance, some only focus on normal students. The present study gets its subjects from one institute in Nan Chang City. In addition, this research is conducted in an attempt to provide useful and practical information for teachers and learners, especially for those who study in adult institute. That is to say, the conclusion of the study may be helpful to language teaching as well as learners.

II. SUBJECT

Although 120 students take part in the questionnaire, 106 of them provide with valid ones, so we choose them as our subjects. They are second-year English majors in the Jiangxi Educational Institute, whose ages are about 19 to 35, among which are 24 boy students and 82 girl students.

The participants are selected for two reasons: Firstly, all of them have intensive and extensive reading course during their studies. It is fair to say that most of them have constructed their own learning strategies including reading comprehension strategies. Certainly, they all come from Jiangxi Province, therefore, they have roughly similar cultural and educative background. Secondly, we know it is evident that the term-end exam is often not the most accurate measure of a student's proficiency of a language while we take the CET and TEM score as a yardstick, whose values of validity reliability and discrimination are high and which are the true reflection of students' achievement. So we take them as data pool. Most subjects have been learning English for about seven and a half years. Normal students have six years of English learning in middle school, and one and a half years at institute. Adult students have three years of English learning in junior middle school, three years in normal school, and one and a half years in university.

With the help of their teachers, 106 students from two classes are willing to participate in the investigation. According to my observation, most subjects of the study are serious and cooperative in finishing the questionnaire. They are all highly motivated students in studying English. So almost all of them show great interest in the study of English and are eager to learn it well.

III. INSTRUMENT

There are so many kinds of instrument—verbal reporting, think-aloud, interview, they have their own advantages and of course have shortcomings. Verbal reporting is adopted on the condition that subjects have experienced in this protocol; more example, think-aloud tasks fail to verbalize important information without training; interview can be costly time-consuming and difficult to administer and there is likely for the interviewee to respond in a certain way to please the interviewer which shows their subjectivity and personal bias. This study is designed to undergo quantitative

analysis so that a questionnaire is suitable for these reasons.

A questionnaire Strategy Inventory for Reading is designed by author herself combined with the observation and experience of the investigator on the basis of Anita (2001) SILL---Strategy Inventory for Language Learning (Version 7) contains two parts: background and statements. The subjects are demanded to fulfill their background information such as age, sex, test scores of CET or TEM. The second part consists of a simple statement that is stated in the first person, including 36 statements, each of which uses five-point scale ranging from 1 (I never or almost never do this) to 5 (I always or almost always do this) (2 indicting rarely; 3 indicting neutral and 4 indicting sometimes). The second questionnaire includes 12 statements that are divided into two groups: instrumental motivation (from1-6) and integrative motivation (from7-12). Subjects are asked to read each statement and write down the number that applies to them, indicting the frequency with which they use the reading strategies implied in the statement. The higher the number, the more frequent the use of the strategies concerned, (excluding strategy 11, 12, 17, 18, 19, 20, 21, 24, 32, 33. These statements are opposite to the rest for they are perceived as effective strategies which were designed from the reverse side on purpose to test the reliability of the participants' response). A brief description of each category and the number of items within each category are given below:

Metacognitive reading strategies: 12 statements are those intentionally, carefully planned techniques by which students monitor, manage or evaluate their reading, such strategies include having a purpose in mind, previewing the text so as to its length and organization. (Strategies 1,2,3,4,5,7,8,9,13,22,30,32)

Cognitive reading strategies: 22 statements are the actions and procedures students use while working directly with the text, when problems develop in understanding textual information they are used. Examples of cognitive strategies include adjusting one's speed of reading when the material becomes difficult or easy, guessing the meaning of unknown words, and re-reading the material for improving comprehension. (Strategies 6, 10, 11, 12, 14, 15, 16, 17, 18, 19, 20, 21, 23, 24, 25, 26, 27, 28, 29, 31, 33, 34)

Social\affective reading strategies: 2 statements (Strategies 35, 36) focus on the question and clarification by asking for help from teachers or peers and controlling emotional reaction to reading behavior.

Metacognitive strategies

1 Formulate some questions before reading the text	Advance organizers
2 Guess the following content	Advance organizers
3 Read immediately without second thought	Advance organizers
4 Recognize failure\success to understand a portion of the text	Self-evaluation
5 Comfirm\disconfirm an understanding after reading	Self-evaluation
7 Try to concentrate on the reading	Directed attention
8 Distinguish main points from details	Directed attention
9 Adjust reading rate in order to increase comprehension	Self-management
13 Skip unknown words	Selective attention
22 Skip to find the needed vocabulary or phrase	Selective attention
30 Read ahead for further clues	Advance organizers
32 Abandon unknown meaning	Selective attention

Cognitive strategies

6 Think about the significance and truthfulness	Organizing
10 Refer to lexical items that impede comprehension	Elaboration
11 At a loss at difficult text	Directed physical
12 Response negatively to uninteresting articles	Directed physical
14 Skip to find out the summary	Organizing
15 Imagine the mentioned content	Imagining
16 Read not word by word but according to thought-groups	Inferencing
17 Want to look up dictionary meeting unknown words	Resourcing
18 Round the sentences mentally	Repetition
19 Analyze the constructure of sentence	Analyzing
20 Pay attention to the details	Grouping
21 Read one word by one word	Auditory representation
23 Guess words meaning by its root	Inferencing
24 Translate the words or sentences into Chinese	Translation
25 Understand the text by paraphrase	Inferencing
26 Extrapolate from information presented in the text	Inferencing
27 Reread when misunderstanding the article	Auditory representation
28 Use contextual clues to interpret a word or phrase	Inferencing
29 Response to the genre and organization of the text	Organizing
31 Use background knowledge to help to understand	Transferring
33 Analyze the grammatical structures to help comprehension	Analyzing
34 Use signal words to help understand	Inferencing

Social affective strategies

35 Communicate with teachers improving comprehension

Question for Clarification

36 Discuss with peers to improve comprehension

Cooperation

IV. PROCEDURE

A questionnaire survey is conducted to collect data on the students' reading strategies. The questionnaire is distributed at the beginning of individual class period with the help of the classroom instructor. Most of the subjects are serious with the questionnaire completed. Before we deliver the questionnaire items, we explain the nature of the study to the subjects and tell them some basic knowledge about reading and reading strategies. We have translated the questionnaire into Chinese in order to avoid the ambiguity in understanding and also explain some of items that we think to be difficult to understand. Subjects are advised again that there is no right or any answers on the questionnaire and the responses will not affect anything and are reminded that questionnaire doesn't measured their belief, that is to say, what they think about learning English, but do measure their strategies, that is to say, how they actually go about learning English. It takes the subjects about ten minutes to finish the questionnaire on the average. During their working on the questionnaire, some subjects don't quite understand one or two statements, so they have been helped by the teacher. On the whole, there was no big problem of understanding.

After the questionnaires were collected, each of them was examined individually, and 14 of them were discarded because some reasons. Then came the data-processing stage. The data from 106 usable questionnaires were coded into computer for statistical analysis to answer the research questions indicted above. The raw data were processed by means of Cohen's (2000) the Statistical Package for Social Science (SPSS Software for MS Window Release10.0) to analyze and describe the status of effective and ineffective students in using reading strategies and whether significant differences existed between two groups of subjects. Based on the result of the experiment, some issues were discussed, which interested us and we finally came to our conclusions.

V. RELATION BETWEEN FACTOR AND THE USE OF READING STRATEGIES

A. Age

In order to find out whether there is any significant relationship between age and reading strategies, the author carries on an analysis of variance comparing the younger adult students with the older adult students. There are 54 younger students with an average age of 21.37 and the remaining 52 older students with an average age of 28.13.

The differences between the younger group and the older group are to be revealed in the following aspect: the frequency of reading strategy use. To find out the differences between the younger and the older in the frequency of reading strategy use is conducted according to the performance in the questionnaire. The mean scores of every category of reading strategies are also calculated and compared between two groups. As to the older, frequency has shown that they use all three subcategories of strategies. The mean score attains by an average older adult in every metacognitive strategy is 3.5826, every cognitive strategy 3.6783 and every social/affective strategy 2.1697. Though the data are not extremely high, they are still high enough to indicate that the older use all three strategies often. Through a comparison, the mean scores of the younger are 3.5181, 3.6792 and 2.1438, the gap between the younger and the older is 0.0645, 0.089 and 0.0259. The results suggest that the younger and the older use reading strategies frequently as each other.

Although the difference between the younger and the older is not significant in the total use of reading strategies, the results show that there is a strong tendency indicating that the older use reading strategies more frequently. The score of the older is higher than the younger in S1, S3, S13, S22, S35, S36, while the score of the younger is higher than the older in S10, S16, S25, S31.

Now there are many adult students studying ESL course. One of the most important characteristics about adult students is that they differ greatly from each other in age. Since age influences reading strategy use, it is very important to find out the differences between the younger and the older in reading strategy use.

It's generally believed that the younger are better language learners than the older are, thus many scholars suggest that the younger are also better in reading strategy use than the older are. However, statistical comparisons from several aspects reveal that the older are not worse than the younger in reading strategy use. The older use reading strategies a bit more frequently than the younger do, although their superiority in the frequency of reading strategies slight.

The superiority of the older in metacognitive and social/affective reading strategies strongly indicates the influence of age. The older have been away from school for many years than the younger, Therefore their memory about English and their ability to handle individual reading tasks are not as sharp as the younger. To compensate their inferiority in these aspects, the older tend to depend on reading strategies to develop their reading ability. According to my personal experience, the older are much more attentive than the younger with reading strategy instruction are, and they are more active to apply the reading strategies to practice. Moreover, the older have cultivated from their richer life and working experiences, the ability of self-managing, organizing and self-evaluating that happen to be the fundamental characteristics of metacognitive reading strategies. As we have known, metacognitive reading strategies are executive skills that may entail self-managing, organizing or self-evaluating the success of reading activity. It can be inferred that the older have transferred these abilities to read. Just like in a work, they make organization for the whole process of

reading; and they also evaluate their reading as often as they can. Similarly, the success of the older in use of social/affective reading strategies is also due to the influence of age. The older have experienced so much in their life that very few things in the world can frustrate them or make them nervous. When faced with difficulties in reading tasks, they are able to control their affective response very well and seek help from classmates and teachers.

In contrast, the younger have not been away from school for many years, their memory about English is still fresh, and their ability to handle individual reading tasks is still sharp. It happens that cognitive reading strategies are more directly related to individual reading tasks, therefore the younger always depend on cognitive reading strategies, which are seen to bring them with direct and immediate results. On the other hand, the younger are not good at metacognitive reading strategies. They are not as experienced as the older in self-management, organizing and self-evaluating reading strategies, because they are higher executive skills and actions going beyond purely cognitive devices. Moreover, the younger are not as experienced as the older in interacting with the other people or controlling their emotions, therefore they are also not very good at social/affective reading strategies.

A comparison between frequency in reading strategy use indicates that the older often seek help from metacognitive and social/affective reading strategies while the younger mainly depend on cognitive reading strategies. It gives us an implication that the older and the younger should be differentiating strategy instruction.

B. Sex

For some reasons, there were 24 boy students and 82 girl students participating in the experiment. One reason, as we know, is the fact that girl students greatly outnumber boy students in the English department of any university. Another possibility is that boy students were comparatively careless in finishing the questionnaire. There is a wide spread stereotype in language learning, that girl students often do better than boy students. In the experiment, test was performed to see whether boy students different from girl students in strategies use

Although the difference between boy students and girl students is not significant in the total use of strategies, we can see that girl students use reading strategies more frequently than boy students. Girl students' scoring higher in difference is found in the following strategies: strategy3, 5, 12, 13, 19, 24, 27. And compared with boy students, they more frequently skip unknown words and skim the passage for general idea. It's rather surprising to find that boy students, instead of girl students, have a tendency to translate the words or sentences into Chinese in their reading. Girl students also are more likely to reread the text. Boy students only score higher in strategy 12 and strategy 19 among the above strategies. This means that boy students, comparatively speaking, are more able to monitor their effective response to uninteresting texts than girl students. The significant difference in strategy----indicates that girl students are apt to analyzing the syntactical structures more often than boy students. They pay more attention to the grammar.

Though the difference between boy students and girl students in the overall of use of reading comprehension strategies is not significant, Griffiths (1991) found that there is a strong tendency indicating the great extent of strategies use while the boy students' strategies are very limited. This may explain partly the reason why some of the girl students have better achievement in English learning than boy students. One of the possible reasons for it is that girl students pay more attention to the use of strategies. Of course it is only an assumption that may be carried further research in the following years by researchers.

Boy students and girl students use strategies differently, especially in the strategies for establishing coherence in the text. It appears that girl students are likely to use top-down strategies than boy students, but it should be noted that top-down strategies the girl students tended to use are often text-based, for example, using signal words and contextual clues to help their comprehension. As for the use of background knowledge or schema, no significant difference is found. Boy students even use it a bit more frequently than girl students. In general girl students are more careful than boy students. They seem to use the strategies in a more ritualistic way. The strategies that they used are mostly perceived as effective strategies: think in English, do not translate and read for gist, etc. Girl students get strategies in the textbooks or reference books apply them properly while boy students always ignore the study of strategies, they are astonished with admiration that they do not recite such rules. The awareness of strategies as mentioned in Cohen is lacking among the boy students.

Significant difference in strategy 19 and 24 implies that the girl students are more readily receptive to the new knowledge. They are apt to think in English while boy students, on the other hand, tend to think in their native language. When they meet problems in reading boy students are more likely to translate the words or sentences into Chinese to help them to comprehend. In contrast, girl students would prefer to analyze the grammatical structures to help them.

C. Motivation

Students have been found vary considerably in both the overall frequency with which they employ reading strategies and also the particular types of reading strategies they use. Some factors have found to affect the choice of reading strategies. It's turn to focus on the relationship between motivation and the use of reading strategies. The major purpose of this section is to find out whether there is any relationship between motivation and choice of reading strategies, and to find out which the type of motivation influence students choice of reading strategies.

The students are the same. They all have experienced in intensive reading and extensive reading. Most of them have developed their own motivation and reading strategies. The instrument used in this section is a questionnaire consisting of 12 statements of motivation, six of them are instrumental motivation and the rest are integrated motivation.

Both instrumental motivation and integrated motivation have corrections with some individual reading strategies. That is to say, both instrumental motivation and integrated motivation have effects on reading strategies, either positively or negatively. In order to be convenient to describe, we subdivide 36 reading strategies into 14 categories: C1=Translation, C2=Repetition, C3=Grouping, C4=Contextualization, C5=Inferencing, C6=Resourcing, C7= Practice, C8=Planning, C10=Selection attention, C11=Self-management, C12=Self-evaluation, C13=Anxiety, C14=Cooperation. The statistic that describes the relationship between two kinds of motivation and reading strategies is called a correlation coefficient. This coefficient indicates how closely motivation and reading strategy use. If there is a perfect relationship (either positive or negative), the magnitude of the correlation coefficient would be either +1 or -1. +1 correlation coefficient indicates a positive correlation, -1 correlation coefficient indicates a negative correlation. Instrumental motivation positively correlated with 4reading strategies while integrated motivation positively correlated with 15 reading strategies. We may conclude from the results that the students with instrumental motivation probably use reading strategies frequently or those students who use reading strategies more and often might have integrated motivation.

Generally, results of our study show that there are correlations between motivation and reading strategies. Integrated motivation relates to social/affective strategies significantly. Rubin (2007) advocates instrumental motivation correlates to cognitive strategies negatively. It seems that students with integrated motivation are likely to reduce anxiety when they read passage and encourage themselves to improve their reading. It's understandable that students who are interested in English study and western culture have stronger desire to read more. Therefore, they maybe seek and treasure opportunities to read and practice.

Statistical results also show that both integrated and instrumental motivation positively correlate with strategies Translation, Grouping, and Anxiety. The positive correlation between integrated motivation and strategy Translation is inconsistent with Wen's(1995) in that her study finds that integrated motivation correlates with mother-tongue strategies negatively. The contradiction with her study might be that we have different subjects from different background.

We can get the relationships between integrated motivation, instrumental motivation and individual reading strategies. Integrated motivation correlates positively with C1, C3, C7, C9, C11, C12, C13, C14 and negatively correlated with C2, C5, C6, C8, C10. The students with integrated motivation are likely to use grouping strategy when they are reading, they can group which are details and which are summary, so they can catch he summary and the correlated details that can help them understand the passage better. The next is self-evaluation. After reading they are able to evaluate the results that can improve their reading for the following times. Instrumental motivation is found to significantly correlate with S19, S33 individual reading strategies. Instrumental motivation positively correlates with S4, S5, S20, S23. It indicates that the students who are instrumental motivation seemed to adjust their reading strategies and that they seldom use reading strategies including S19, S21, S27, S33.

In conclusion, motivation does have important influence on students' use of reading strategies. Rosansky(1976) thinks the more motivation generates both the necessity and desire for the employment of a wider rang of reading strategies. And some special motivation types often lead to the choice of certain types of reading strategies. For example, deep integrated motivation usually leads to more frequent and various use of metacognitive reading strategies.

VI. CONCLUSION

The goal of the study is to check the effects on reading strategies and we can draw the following conclusions: The younger prefer the cognitive reading strategies while the older would rather use metacognitive and social/affective reading strategies. girl students tend to use more and diverse reading strategies and more frequently than boy students because girl students are more careful and more receptive to new things.

Integrated motivation has greater influence than the instrumental motivation on the use of reading strategies. Based on the differences between effective students and ineffective students, teachers should help the students to decide what kinds of strategies are more effective and which are more suitable to them. Oxford(1989) holds that the strategies that are effective for some students may be negative for the others. That's to say, teachers emphasize how to apply reading strategies which is fit to them rather than illustrate a profile of strategies, which is the content of the following chapter.

REFERENCES

- [1] Anita W. D. (2001). *Learner Strategies for learner autonomy*, New York: Prentice-hall International.
- [2] Cohen, A.D. (2000). *Strategies in learning and using a second language*. Beijing: Foreign Language Teaching and Research Press.
- [3] Griffiths, R. (1991). *Personality and Second-language Learning: Theory research and practice in Sadtano*. New York: John Wiley & Sons, Inc.
- [4] Oxford, R., & Nyikos, M. (1989). Variables affecting choice of language learning strategies by university students. *Modern Language Journal*, 73, 247-251.
- [5] Rubin, H. (2007). *Learner Strategies in Language Learning*. Englewood Cliffs, N.J. Prentice Hall.
- [6] Rosansky, Ellen J. (1976). Methods and morphemes in second language acquisition research. *Language Learning*, 26(2), 409~425.
- [7] Wen Q. F. (1995). *English learning strategy theory*, Shanghai: Shanghai foreign language education press.

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