

The Influence of Field Independent/ Dependent Cognitive Styles on English Majors' Reading Competence

Jingmei Li

Meishan Pharmaceutical College, Sichuan Meishan 620200, China

Abstract: Reading is one of the important ways for English learners to absorb language materials and get perceptual knowledge. It is not only a cognitive and constructive process, but also a process of interacting with each other between learners and reading materials, as well as a process of the use of the reading strategy. However, reading comprehension process is a complex cognitive process and one of the individual factors of English learners is the cognitive style, which embodies features of individual cognitive processing preference. This study is based on the theory of field independence/dependence, which is first put forward by the America psychologist, Witkin.H.A. and this paper adopts questionnaire to investigate English Majors' cognitive style and reading ability as well as analyzes the influence of cognitive features on reading comprehension ability, and thus proposes proper solutions to improve methods of reading teaching.

Keywords: Field of independence;Field of dependence;Reading comprehension

1. Definition of Field Independence and Field Dependence

Field independence has its origins in visual perception. It distinguishes individuals dichotomously as to whether or not they are dependent on the prevailing visual, she or he can not see anything right in front of them. On the other hand, those who are field independent are better able to notice details outside the prevailing visual object and are not dependent on that subject. Some individuals are better at finding objects in the middle of clutter(field independent), whereas others(field dependent) can not see things that may be obvious to those with a field independent orientation. In other words, the field(surroundings) gets in the way of field dependent individuals. In a review of the literature, Johnson and Prior(2000) report that field independents do, in general, better in performing cognitive task, but Chapelle (1995) points out that those who are field dependent have an orientation that might be deemed more interpersonal and more sensitive to the social context. This would certainly have importance for their differential role in the interaction studies. It is predicted that field dependent individuals would be more sensitive to implicit feedback than field independent individuals and would, as a result, benefit more from interaction.

Actually, field independence and field dependence represent two different ways of dealing with information: Field independents tend to use the internal reference as the basis of psychological activity, be good at using the way of analytic perception, and have a high cognitive reorganization ability, as well as they can decompose the content into various components, and then according to their need to re-build the structure so that this process naturally make them obtain a number of information on the operation, such as classification, inference, hypothesis testing and so on. Field dependents tend to use external reference as the basis of psychological activity. It is difficult to get rid of the impact of environmental factors, and it can not distinguish a number of elements or components from complex situations. In addition, they always get used to adopting to holistic cognitive approach and they are more sensitive to external clues and they absorb the information as a whole according to the way the information is presented..

2. Research Objectives

The first objective of this study is to make efforts to explore the general inclination to the relationship between Chinese English majors' reading comprehension ability and field independence/dependence through the systematic analysis of their reading scores and cognitive styles.

The second objective is to find out how English majors in China benefit from various cognitive styles. There is no doubt that

reading is an significant part in English language learning for most students. Therefore, they will try their best to boost it. Meanwhile reading ability cannot be acquired during a short time. Instead, its acquirement may be time-consuming and may labor-consuming, usually making students frustrated and baffled. Thus, the author hopes that this study may help the students with a better understanding of their problems and provide them with useful implications in the process of English learning and teaching of reading.

3. Research Design

Reading Comprehension Test and the Group Embedded Figure Test are the mainly research methods that were taken in this thesis.

The participants of the study are made up of 46 English major students from XuZhou Institute of Technology. They have similar education background and got similar language training from their college. What's more, they all have four years' English study and regard Chinese as their mother tongue. In their second language acquisition, they have little opportunity for them to acquire some psychological linguistic knowledge owing to lack of referring in their syllabus. Therefore, their awareness on field independent/dependent cognitive styles is at the same level.

A reading test prepared to measure the students' reading comprehension competence. And the reading comprehension test is formed by four passages, including Passage A, Passage B, Passage C and Passage D, which, in total, are twenty questions in the form of multiple choices. And these four passages were all selected at a TEM-4 degree of difficulty so as to secure the reliability and validity. Passage A is related to a humanistic issue concerning Chinese American. Passage B is about a scientific study on a controversy over the use of DNA in which it involves a lot of analysis and arguments. Passage C is about anti-smoking, in which the author refers to the anti-smoking process and a number of reports and data are involved. Passage D is about various kinds of jobs the college students may take after they graduate from their schools. As is mentioned above, Passage A and Passage D are humanistic genre and Passage B and Passage C are scientific genre.

The Group Embedded Figure consists of twenty-nine figures and the twenty-nine figures are divided into three parts. The first part includes nine complex figures, which is designed to warm up and the second and third part is made up of ten figures respectively. In order to make the students understand the test more clearly and correctly, the requirements were presented in Chinese.

4. Research process

Thanks to the help of 46 English major students who try their best to participate in the study in the morning of March 24th, 2017. The author chose a classroom and asked students to help to carry out this study. First, all students participated in the Group Embedded Figure Test. Then the author presented the objectives of this test and some important points so that they can fully understand how to operate in the test, which can validly guarantee the accuracy of the data. They were given 15 minutes to finish the test and the total mark of the test is 20 scores. And their average score is used to distinguish their cognitive styles. If the student's score is higher than the average, he is regarded as independent cognitive style and otherwise, the student is dependent cognitive style. After the Group Embedded Figure Test, the students were divided into two groups in terms of their scores of the former test. All students were given reading comprehension test to collect the data and learn about their reading comprehension ability. The students have to finish the four passages within 30 minutes. The scores students obtained in the reading test is to figure out whether field independent learners are doing better or not. The whole research took about 1 hour.

5. Data Collection and Analysis and Research Results

Table 1 : Descriptive Statistics of Group Embedded Figure Test

N	Valid	46
	Missing	0
Mean		10.5453
Median		10
Standard Deviation		4.2629
Maximum		17
Minimum		3

Table 2 : Total Scores of Reading Comprehension Test

	N	Minimum	Maximum	Mean	Standard	Deviation
RCS	46	6	17	13.2531	4.12476	
Valid N						

Note: RCS is an abbreviation of reading comprehension scores, N is an abbreviation of numbers.

Table 3 : Reading Comprehension Scores of Field Independent Students

	N	Minimum	Maximum	Mean	Standard	Deviation
FIRCS Valid N	23	12	17	15.1312	1.63542	23

Note: FIRCS is an abbreviation of field independent reading comprehension scores,N is an abbreviation of numbers.

Table 4:Reading Comprehension Scores of Field Dependent Students

	N	Minimum	Maximum	Mean	Standard	Deviation
FDRCS Valid N	23	6	13	9.1521	2.11345	23

Note: FDRCS is an abbreviation of field dependent reading comprehension scores,N is an abbreviation of numbers.

In this study, the author makes efforts to figure out the college English majors' cognitive styles and make sense of the relationship between field independence/ dependence and reading comprehension ability in order to make a conclusion that field independent English major students are more excellent in doing reading test. And in the process of analyzing statistics and discussing the results, the major findings are as follow.

Firstly, the scores field independent students obtained are higher than those of field dependent students. Therefore, it is evident that there is an optimistic relationship between field independent cognitive style and the reading comprehension ability. In other words, a student with a strong tendency in field independence are more likely to obtain better grades in TEM-4 comprehension test. This result is consistent with some researchers, such as Seliger(1977), Chapelle and Robert(1986), Cater(1998), Xu(1999).

Secondly, it is clear to see that different genres of reading materials will have an essential effect on different cognitive styles. Field independent students are more excellent in scientific materials because they tend to be more analytic and pay more attention on data and detailed information. While field dependent students are doing better in humanistic genre of reading materials because they focus on the whole structure and take more background information into consideration. Actually, either cognitive style cannot be treated as good or bad, as it is only a psychological process that will have an influence on people's thinking ways when they encounter various sorts of problems..

6. Conclusion

The Group Figure Test and the Reading Comprehension Test are adopted in this thesis to figure out how field independent/ dependent cognitive styles have an effect on reading comprehension competence of English major students. The present study on the relationship between field independent/dependent cognitive styles and reading comprehension competence carried out in XuZhou Institute of Technology are made efforts to guarantee the reliability and validity by the author. So some new ideas appears in the research and data collection and analysis are objective. But there are still some limitations in the thesis that require further improvement.

To begin with, the samples of this research are only 46 English major students in our school. So the subjects are small. In addition, all the participants are from one college, which makes it difficult to spread the research findings into other colleges. What's more, with a stereotype about the differentiation of the cognitive styles, the author might have had some prejudice.

Hopefully, further research can be carried out in this area to improve the English students' reading proficiency and further studies can be carried out to promote students' reading efficiency and contribute to some more practical ideas to improve the reading comprehension competence of both cognitive styles.

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About the author:

Jingmei Li (1995.8.29-), Han Nationality, Sichuan Qingshen, English teaching.