

# **The comparison between field-dependent and field-independent students in reading comprehension achievement at the first grade of SMAN 3 Kotabumi**

**Aisyah Wahyuningtyas<sup>1\*</sup>, Ujang Suparman<sup>2</sup>, Tuntun Sinaga<sup>3</sup>**

*Universitas Lampung, Jl. Prof. Dr. Sumantri Brojonegoro, Rajabasa, Bandar Lampung<sup>1,2,3</sup>*

<sup>1</sup>Correspondence: aisyahwahyuningtyas2@gmail.com

## **ABSTRACT**

This research was intended to compare the reading comprehension achievement between field-dependent and field-independent students. The objective of this research was to find out the difference between field-dependent and field-independent students in reading comprehension achievement at SMAN 3 Kotabumi in 2020/2021 academic year. In order to achieve the research objective, 33 samples of first grade students were chosen. This research applied quantitative method for data collection and analysis. Questionnaire was used to categorize the students into field-dependent and field-independent group. Further, reading comprehension test was conducted for testing the students' reading comprehension achievement. The result of this research showed that there was difference between field-dependent and field-independent students. It was confirmed by the difference of reading comprehension test mean score between two groups. The researcher found that the mean score of field-dependent students was 45.67, while the mean score of field-independent students was 82.85. Since the gap of mean score of reading comprehension test was quite a lot, it can be indicated that field-independent students was better than field-dependent students in reading comprehension achievement.

**Keywords:** *Cognitive style, field-dependent, field-independent, reading comprehension achievement*

## **I. INTRODUCTION**

As one of language skills, reading becomes an important skill which must be learned by the students in order to succeed in learning English. By reading, the students can access a lot of information and learn many things about language. According to Harmer (2007: 99), reading is useful for language acquisition. Provided that students more or less understand what they read, the more they read, the better they get at it. It means that the students' success of the study depends on their ability to read. If their reading skill is poor they are likely to fail in their study. On the other hand, if they have a good reading ability they have a better progress on their study.

The purpose of reading can not be separated from comprehension. Comprehending a text is important because it is a process by which a person derives meaning from print. Comprehension is determined not only to know what the letters stand for but also to fully understand the whole text. Suparman (2012) stated that there are some aspects of reading, they are determining main idea, finding specific information, reference, inference, and vocabulary. Reading a text has no benefit if the reader does not comprehend what is being read.

Reading without comprehension does not have a main goal because comprehension is an important process of reading. In reading, basically there is a process of interaction between the author with his language media and the reader with his language knowledge and knowledge of world (Sutarsyah, 2013: 10). Furthermore, there is no benefit of reading if the reader does not comprehend what is being read. If the readers can read the words but they do not understand what they read, they are not completely reading.

The purpose of teaching English in the curriculum 2013 of senior high school is in line with the teacher perception of the importance of English. The teacher has to advance the awareness of the importance of English as a foreign language. It can be developed as a tool of learning. Based on the curriculum 2013, the competences of English that should be mastered by the first grade students are understanding various meanings in a variety of written texts especially in the forms of announcement, descriptive, recount, narrative, and explanation.

The students' language achievement may be affected by different characteristics of each individual. It can be said that there are many characteristics of the students which are different from one to another. The characteristics contribute to the students' success of second language learning. The students have their own style that influence their ability to solve the problem. According to the previous study done by Benham and Fathi (2009), individuals with different cognitive style may approach a problem in different ways. It shows the result of language test is indicated by the different style of participants in solving the problems.

There are some styles of the students when they learn second language. Such as, some students tend to be individual when they want to read a passage; some students like to have a discussion with friends when they have to read a text; some students have quick response to the teaching process while others do not; some students are slow in understanding teaching materials; some students are interested in general things when they read while others are interested in specific things. It can be summarized that how the students learn something in general or specific way and how they create the solution for solving the problems, it relates to the link between their personality and cognition. The link is called cognitive style.

Cognitive style is defined nowadays as one's preferred way to think, perceive and recall, in short, to recognize. It reveals itself, for instance, in problem solving (Soto-Andrade, 2007: 3). Moreover, Suparman (2010: 103) states that cognitive styles are usually defined as an individual's preferred and habitual modes of perceiving, remembering, organizing, processing, and representing information. The individual's preferred and habitual modes of the students will be needed to solve the problems. Both of individual's preferred and habitual modes have an important role in students' response especially in teaching learning process. The students have some ways to response in teaching learning process. It can be said that there are two types of student. First, students who like to socialize with their environments and some others who do not. In addition, within the cognitive style, there are students who prefer to work in group, namely field-dependent and the other tend to work individually, namely field-independent.

It is important for the teacher to know the cognitive style of the students. It can help the teacher easily in finding the appropriate teaching materials, teaching technique and teaching method for the students. When the teacher know the characteristics of the students, the teacher will find the suitable approach to teach the students and the teaching learning process will be more effective. By knowing the characteristic of field-dependent and field-independent, the teachers are expected that they can help the students to improve their reading comprehension achievement.

Related to the explanation stated before, the researcher formulated the research question as "is there any difference between field-dependent and field-independent students in reading comprehension achievement at SMAN 3 Kotabumi?" The researcher tended to conduct the research of comparing the students' cognitive styles in reading comprehension achievement. The researcher focused the type of cognitive styles as field-dependent and field-independent. The objective of the research is to find out whether there is difference between field-dependent and field-independent students in reading comprehension achievement at SMAN 3 Kotabumi.

Theoretically, the result of this research could be used to support or dis-support the theories about the difference between field-dependent and field-independent students in reading comprehension achievement. Additionally, this research was expected to give information to the teacher that students reading comprehension achievement might be affected by their cognitive styles. Practically, the result of this research could be used by the English teacher as reference to improve the students reading comprehension achievement through the appropriate teaching technique with regard to field-dependent and field-independent theories.

## II. METHOD

This research was quantitative research. The researcher focused on comparing the students reading comprehension achievement between field-dependent and field-independent students. In conducting this research, the researcher used criterion group design that two groups of students will be compared on one measure. This research was conducted in two days at SMAN 3 Kotabumi. First day on May 4<sup>th</sup> 2021, the researcher accomplished this research to try out class. Next the last day on May 10<sup>th</sup> 2021, the researcher accomplished this research to experiment class.

### *Population and Sample*

The population of this research was all the first grade students at SMAN 3 Kotabumi in the academic year of 2020/2021. There were ten classes and the researcher took one class as the sample of try out class and one class as the sample of experimental class. The try out class was X MIA 1, consist of 38 students with 10 males and 28 females. The experimental class was X MIA 3, consist of 33 students with 7 males and 26 females. The sample of the research is randomly determined by the teacher.

### *Instruments*

The instruments of this research were questionnaire and reading comprehension test. The researcher gave reading comprehension test to the students to find out the difference between field-dependent and field-independent students in reading comprehension achievement. The tests consisted of 40 questions. The researcher uses multiple choice to assess the students' reading comprehension. There were five aspects in the reading comprehension test, such as determining main idea, finding specific information, reference, inference, and vocabulary. The specification of reading comprehension test will be illustrated below.

Table 1. Specification of Reading Comprehension Test

| Reading aspects       | Items                         | Total | Percentage |
|-----------------------|-------------------------------|-------|------------|
| Determining main idea | 1, 4, 10, 12, 18, 25, 28, 34  | 8     | 20%        |
| Specific information  | 6, 7, 13, 17, 22, 26, 30, 33  | 8     | 20%        |
| Inference             | 2, 8, 15, 20, 21, 27, 32, 35  | 8     | 20%        |
| Reference             | 5, 9, 14, 19, 24, 29, 36, 40  | 8     | 20%        |
| Vocabulary            | 3, 11, 16, 23, 31, 37, 38, 39 | 8     | 20%        |
| Total                 |                               | 40    | 100%       |

The questionnaire consisted of 16 close-ended items in accordance with the theories of field-dependent and field-independent. The questionnaire based on Likert scale with the score range represented the students' level of agreement from 1 to 4 by categorizing 1 is strongly disagree, 2 is disagree, 3 is agree and 4 is strongly agree.

### **Research Procedures**

The researcher administered the try out of the instrument to the sample class of try out in order to find out the quality of the instrument. The quality itself is related to validity, reliability, discriminating power, and level of difficulty. Then the research continued by administering the reading comprehension test to experiment class in order to gain the data of students' reading comprehension achievement. This test consisted of 40 questions and the time allocation was 70 minutes.

Questionnaire was administered to the experiment class in order to categorize the students into two groups of cognitive styles, they were field-dependent and field-independent group. The questionnaire consisted of 16 close-ended items that related to the theories of field-dependent and field-independent. The time allocation of questionnaire was 15 minutes. The result of questionnaire and reading comprehension test were used to find whether there is a difference between field-dependent and field-independent students in reading comprehension achievement.

### **Data Analysis**

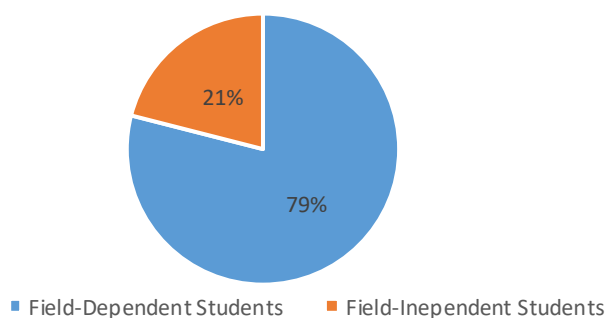
The researcher analyzed the result in order to identify the difference between field-dependent and field-independent students in reading comprehension achievement. After administering the try out test, the researcher dropped the invalid items and administered the valid items to the experiment class. The next analysis was scoring, collecting and tabulating the data of questionnaire and reading comprehension test. Then the researcher examined the result of the research by using Statistical Package for Social Sciences 16 (SPSS 16).

## **III. RESULTS AND DISCUSSIONS**

### **Results**

After collecting the data, the researcher analyzed the result. It supported the discussion which can be used to draw the conclusion and answer the research question.

Result of Questionnaire



Picture 1. Result of Questionnaire

The diagram showed that the number of field-dependent students are higher than field-independent students. There were 26 students (79%) of 33 students belong to field-dependent group and 7 students (21%) belong to field-independent group.

## Result of Reading Comprehension Test

Table 2. Statistics of Reading Comprehension Test

|                    |         |          |
|--------------------|---------|----------|
| N                  | Valid   | 33       |
|                    | Missing | 0        |
| Mean               |         | 53.5606  |
| Std. Error of Mean |         | 3.11937  |
| Median             |         | 50.0000  |
| Mode               |         | 40.00    |
| Std. Deviation     |         | 1.79194E |
|                    |         | 1        |
| Variance           |         | 321.106  |
| Range              |         | 65.00    |
| Minimum            |         | 22.50    |
| Maximum            |         | 87.50    |
| Sum                |         | 1767.50  |

The table showed the valid total data (33) could be processed. Then, the missing data was 0 referred to the data that could not be processed. It showed that all the data could be processed. Mean score of the table was 53.56 with the maximum score was 87.50 and the minimum score was 22.50.. Median score of the table showed 50 and the mode score of the table was 40.

Table 3. Statistics of Reading Comprehension Test of Field-Dependent and Field-Independent

|         | Field-Dependent | Field-Independent |
|---------|-----------------|-------------------|
| Mean    | 45.67           | 82.85             |
| Median  | 43.75           | 82.50             |
| Mode    | 40.00           | 82.50             |
| Minimum | 22.50           | 80.00             |
| Maximum | 67.50           | 87.50             |
| Sum     | 1187.50         | 580.00            |

The table showed that the maximum score of field-dependent students was 67.50 and the maximum score of field-independent students was 87.50. The minimum score of field-dependent students was 22.50 and the minimum score of field-independent students was 80. The difference of students' reading comprehension test can be seen by comparing the mean score of field-dependent and field-independent students. The mean score of field-dependent students was

45.67 and the mean score of field-independent students was 82.85. The difference of mean score showed that the field-independent students tend to get higher score of reading comprehension test than field-dependent students. It can be assumed that field-independent students were more successful in reading comprehension achievement.

### ***Discussions***

The result of this research is in accordance to previous study by numerous experts. Firstly, as in line with the findings by Maghsudi (2007) that the data analysis indicates that there is a significant difference between dependent and independent students in their English Achievement scores. In the other words, independent subjects score higher than dependent ones in English Achievement Test. Similarly result was stated by Motahari and Norouzi (2015) that FI and FD English translation students performed differently in rendering a prose literary text and FI students outperformed FD ones. In addition, Guisande, Páramo, Tinajero and Almeida (2007) concluded that analysis of their data for several attention tasks shows that field-independent children typically show better performance than both field-dependent children and intermediate-FDI children. Furthermore, as revealed in the study by Naraghipour and Baghestani (2018) that field-independent learners were significantly better at using learning strategies collectively than field-dependent learners.

Regarding to the objective of the research, there is difference between field-dependent and field-independent students in reading comprehension achievement. It is confirmed by the difference in mean score. In line with the theories mentioned before that cognitive style is important because it describes how the individual acquires knowledge and process it. In the other words the students' cognitive style might affect their reading comprehension achievement. The result also showed that the mean score of reading comprehension test of field-independent students is higher than field-independent students.

According to the findings of the previous study, it can be noted there were some aspects causes the difference between field-dependent and field-independent students due to the fact that their psychological and their potentials' were different. The field-independent students were better at memory, have a good analytic skill, recognize implicit clues as well, competitive and prefer individual study. Although, the field-dependent students were better at social aspect, non-selective in the information uptake, recognize only explicit clues in learning or problem solving, and less able to view things separate from the overall. Particularly, field-independent students have advantage in reading comprehension achievement over field-dependent students because their higher cognitive skills in area such recognize clues, memory or knowledge recall, focus their attention on task, and less affected by surroundings.

## **IV. CONCLUSION**

### ***Conclusions***

According to the findings and data analysis, the research question of this research was solved that there was difference between field-dependent and field-independent students in reading comprehension achievement. It was confirmed by the difference in the mean score of field-dependent and field-independent students.

It is worth pointing out that the research question is solved. Nevertheless, the result of the questionnaire showed that the number of students of each field was not equal. Field-dependent consist of 26 students while field-independent consist of 7 students. The data is not balance because the difference of the number of each group is quite a lot. The researcher assumed that the limited number of research sample might affect the inequality of the data. So therefore, it can be anticipated by increasing the amount of sample of the research.

### **Suggestions**

Since the research concludes that there is difference between field-dependent and field-independent students in reading comprehension achievement, the researcher suggest to the English teacher be able to adapt with the difference of students' characteristics or cognitive styles. The English teacher may present some learning activities related to the theories of cognitive style, field-dependent, and field-independent.

Considering that this research was focused on reading comprehension achievement, the researcher suggests to the other researchers to explore the language skills. The other researchers may do research on listening, speaking or writing achievement. Moreover, in order to gain the equal number of the result, the researcher suggests to the further researcher who will conduct the same topic to this research to increase the number of the sample.

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