

## ABSTRACT

**AZKA, MUHIBBATUN N.** 2016. The Correlation between Field Independent and *Students' Reading Achievement at STAIN Ponorogo in Academic Year 2015/2016*. **Thesis**, English Education Department, Tarbiyah Faculty, State Islamic College of Ponorogo. Advisor Dra. Aries Fitriani, M.Pd.

**Key words: Field Independent and Students' Reading Achievement**

Reading is a process in getting meaning from written symbols. By strengthening reading skills, students will be able to develop other areas of learning. Field independent is the way someone processes and memorizes information. Students apply field independent as a domain of cognitive style in perceiving materials.

The statement of the problem of this research is as follow: is there any correlation between field independent and students' reading achievement at STAIN Ponorogo in academic year 2015/2016. The aim of this research was to find out whether field independent and students' reading achievement at STAIN Ponorogo in academic year 2015/2016 was correlated or not.

This research applied quantitative approach and used the correlational design as the research method. The population of this research was the fourth semester students. The sample taken by calculating trough Isaac and Michael's formula were 56 students. The techniques to collect the data were questionnaire to get the data of field independent and documentation to get the data of students' reading achievement. For data analyzing, contingency coefficient correlation was used to find out whether there field independent and students' reading achievement at STAIN Ponorogo in academic year 2015/2016 was correlated or not.

The conclusion of this research is as follow: there is correlation between field independent and students' reading achievement at STAIN Ponorogo in academic year 2015/2016. It can be proved by the result of analysis that showed the value of the contingency coefficient formula between field independent and students' reading achievement was 0,3388. The result of the computation of the df with significance standard 5% was 0,2638. The  $\phi_{xy}$  was higher than  $\phi_{table}$ , so that  $H_a$  was accepted and  $H_0$  was rejected. Therefore, the lecturers should be able to stimulate the students in applying their field independent to make the students have better achievement in reading subject. Meanwhile, the students have to increase their field independent in order to make reading is easier to be learnt and to cover the problems that usually the students get in reading subject.

## CHAPTER I

### INTRODUCTION

#### A. Background of Study

As the university students, especially in English program, students are required to learn the four skills; reading, speaking, listening, and writing. Reading is required in about 90 percent of the work done in school or college subjects.<sup>1</sup> Students and teachers value reading skill highly. Besides, the experts also cite that reading provides both good models for writing and opportunities to introduce new topics, to stimulate discussion, and to study the language; vocabulary, grammar, idioms, etc.<sup>2</sup> Johnson points out that reading helps students become better writers. He explains more that through reading, students have incidental contact with the rules of grammar. Students develop a sense for the structure of the language and grammar and increase their vocabulary.<sup>3</sup> Nunan says that by strengthening reading skills, learners will make greater progress and development in all other areas of learning.<sup>4</sup> Shortly, reading provides the beneficial aspects, not only for educational but also in other field of real-life context.

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<sup>1</sup> Paul Witty, *How to Become A Better Reader* (Chicago: Science Research Associates, 1953), 9.

<sup>2</sup> Jeremy Harmer, *How to Teach English: An Introduction to The Practice English Language Teaching* (Essex: Longman, 1998), 68; Jack C. Richards and Willy A. Renandya, *Methodology in Language Teaching*. (USA: Cambridge University Press, 2002), 273.

<sup>3</sup> Andrew P. Johnson, *Teaching Reading and Writing: A Guidebook For Tutoring and Remediating Students* (USA: Rowman& Littlefield Education, 2008), 7.

<sup>4</sup>David Nunan, *Practical English Language Teaching* 1<sup>st</sup> Edition (New York: McGraw-Hill Companies, 2003), 69.

According to Schwartz, “Make sense” out of the printed page is one of the main purposes of reading. There are some definitions of making sense; (1) making sense of a passage is being able to extract the main idea from a passage, (2) being able to answer simple questions about it, and (3) being able to drawing inferences from what is read is the feature of comprehension.<sup>5</sup> It means that the readers should get the essence of related-text after reading it.

Comprehension is the essence of reading because the objective of written language is communication of messages. It seems with we are not reading if we do not understand the message.<sup>6</sup> Comprehension involves both understanding different words or vocabulary and the ways in which these words are organized in sentences and paragraphs to create meaning.<sup>7</sup> By comprehending the text, readers will be able to understand the messages which writer wants to reveal and get the information which readers need. However, after conducting a pre-research, the writer found some problems happen to the students in comprehending texts.

A student of STAIN Ponorogo said that she has problems in reading subject. Her major problem is difficult to comprehend text. Based on her experience, she would feel difficult to understand the text because she didn't know the meaning of some words.<sup>8</sup> Students' limited vocabulary may be the cause of those

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<sup>5</sup> Steven Schwartz, *Measuring Reading Competence*, (New York: Springer Science + Business Media, 1984), 99.

<sup>6</sup> Gerald Duffy, *Explaining Reading: A Resource for Teaching Concepts, Skills, and Strategies* Second Edition, (New York: The Guilford Press, 2009), 14.

<sup>7</sup> Jim Cummins, “Reading Instruction and Reading Achievement Among EL Students,” *Research Into Practice Reading* (2008), 1.

<sup>8</sup> Research Interview (March 8, 2016).

problems. Furthermore, the limited vocabulary in understanding the text may bring the incorrect information about the text, so the exactly writer's messages are not fully revealed. For students, wrong understanding may affect to their score, because of the incorrectness of answering the teacher's questions. There is an effective way in solving those problems; the students apply the suitable learning style. Furthermore, using learning styles makes the analyzing reading text as an enjoyable activity and the both feeling of hesitation and anxiety can be reduced to achieve reading purposes.

Eliason in Kang said that students can improve their learning power by being aware of style areas in which they feel less comfortable and by working on the development of these, thus, providing chances to develop their intellectual growth.<sup>9</sup> In other words, students can improve their language skills by fostering and working on the unpleasant style areas.

According to Keefe learning styles, is broadly described as “cognitive, affective, and physiological traits that are relatively stable indicators of how learners perceive, interact with, and respond to the learning environment”.<sup>10</sup> Learning styles are always correlated with cognitive styles, because cognitive styles are usually more generally referred to as learning styles when they are specially related to an educational context, where affective and physiological

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<sup>9</sup> Robert Wyss, Field Independent/dependent Learning Styles and L2 Acquisition (June, 2002), 2.

<sup>10</sup> Joy M. Reid, The Learning Styles Preferences of ESL Students, TESOL Quarterly, 21 (March, 1987), 87.



factors are intermingled.<sup>11</sup> In other word, learning styles and cognitive style has a relation when affective and psychological aspects are mixing as an educational program to face the circumstance of learning.

The cognitive style characteristics describe the individual's mode of understanding, thinking, remembering, judging, and solving problems.<sup>12</sup> According to Ehrman and Leaver, there are nine styles in second language acquisition; (1) field dependence/independence, (2) random vs. sequential, (3) global vs. particular, (4) inductive vs. deductive, (5) synthetic vs. analytic, (6) analogue vs. digital, (7) concrete vs. abstract, (8) leveling vs. sharpening, and (9) impulsive vs. reflective.<sup>13</sup> Similarly, Messick provides the dimensions of cognitive styles; (1) field dependence/independence, (2) scanning, (3) breadth of categorization, (4) conceptualizing styles, (5) cognitive complexity versus simplicity, (6) reflection versus impulsivity, (7) leveling versus sharpening, (8) constricted versus flexible control, and (9) tolerance for unrealistic experiences.<sup>14</sup> It means that cognitive styles as a mark of someone's way in facing problems has some styles that composed based on its characteristics.

From those dimensions, we can see that field dependent/independent is included for the both experts' characteristics. Field dependent/independent is a bipolar and stable trait affecting of how someone thinks, feels and behaves

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<sup>11</sup> H. Douglas Brown, *Principles of Language Learning and Teaching* Fifth Edition (California: Longman, 2007), 119-120.

<sup>12</sup>Olivia N. Saracho, *Teachers' and Students' Cognitive Styles in Early Childhood Education* (Westport: Bergin& Garvey, 1997), 4.

<sup>13</sup>H. Douglas Brown, *Principles of Language Learning and Teaching* Fifth Edition , 120.

<sup>14</sup> Olivia N. Saracho, *Teachers' and Students' Cognitive Styles in Early Childhood Education*, 4.

problems.<sup>15</sup> In this case, the writer explores about students' field independent to solve the problems in reading a text.

Brown states that field independent enables someone to distinguish parts from a whole, to concentrate on something (like reading a book in a noisy train station), or to analyze separate variables without the contamination of neighboring variables.<sup>16</sup> By developing this style, the students not only able to cover the limited vocabulary, but also help the students to focus on something without worry of environment distractions. This can be helpful for students to increase their reading achievement.

To support this idea, some experts had proved the importance of Field Independent. Abraham found that second language learners who were FI performed better in deductive lesson, while those with FD styles were more successful with inductive lesson.<sup>17</sup> Chappelle and Roberts (1984) found field independence to be a significant predictor of success on a multiple-choice grammar test given to ESL students after study in an intensive English program.<sup>18</sup>

This research is a correlational research where two variables are observed whether correlates or not. This research has a goal to find out the correlation of field independent in students' reading achievement. The writer takes a research

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<sup>15</sup> Mohammad Rostampour and Seyyedeh Mitra Niroomand, "Field Dependence/Independence Cognitive Style: Are They Significant at Different Levels of Vocabulary Knowledge?", *IJELS*, 1 (January, 2014) 52.

<sup>16</sup> H. Douglas Brown, *Principles of Language Learning and Teaching* Fifth Edition, 121.

<sup>17</sup> *Ibid*, 122.

<sup>18</sup> Roberta G. Abraham. *Field Independence-Dependence and the Teaching of Grammar*. *TESOL Quarterly*, 20 (December, 1985), 690.

with title “THE CORRELATION BETWEEN FIELD INDEPENDENT AND STUDENTS’ READING ACHIEVEMENT AT STAIN PONOROGO IN ACADEMIC YEAR 2015/2016”.

## **B. Identification of the Problem**

From the background of the study, the research focuses to several problems.

Those problems can be stated as follows:

1. Students are difficult to understand the reading text.
2. Students had limited vocabulary.
3. Students are difficult to catch the exactly writer’s information.
4. Students answer the teacher’s questions incorrectly.

## **C. Limitation of the Study**

Based on the identification of the problem above, the researcher takes the limitation of the study below:

1. This research focuses on the using of learning style to cover the limited vocabulary.
2. This research identifies the learning style based on the cognitive aspects; field independent. Field independent is the opposite of field dependent; cognitive style domains. The major idea of field independent cognitive style is the “independent” way of thinking, remembering, processing, and solving problems.
3. The researcher uses reading final score as the reading achievement of the students.

4. The object of this research is the fourth semester students at STAIN Ponorogo in the academic year 2015/2016.

#### **D. Statement of the Problem**

From the limitation of the study, the researcher stated the following formula:

“Is there any correlation between field independent and students’ reading achievement of fourth semester students at STAIN Ponorogo in academic year 2015/2016?”

#### **E. Objective of the Study**

The objective of the study of this research is:

“To find out whether there is any correlation between field independent and students’ reading achievement of fourth semester students at STAIN Ponorogo in academic year 2015/2016”.

#### **F. Significance of the Study**

##### **a. Theoretical significance**

The result of this research is expected to add the reference of field independent’s level and also teaching reading’s level. It can be as a reference to enhance the quality of education especially for English subject.



b. Empirical significance

1. Students

The result of this research can make the students know about their cognitive style, especially in the types of field independent. Students can develop this style to help them understanding the text. Moreover, the purposes of reading can be reached and they can apply it as the way to solve problems of reading in real-life context.

2. Teacher

For the teacher, this research can be useful to apply as a strategy in English learning especially in reading subject based on the students' cognitive styles. Furthermore, teacher will be able to know the various students' characteristics in learning English and to figure out the appropriate teaching styles in teaching English.

3. Writer

This research is expected to add the writer's knowledge and significance of applying learning styles especially field independent in reading subject. Also, the writer will be able to solve the self reading problem trough field independent.

## **G. Organization of the Thesis**

This research is organized systematically into five chapters that consist of related sub chapters. In order to understand of thesis easily, the organization of the thesis is needed.

Chapter I is introduction. In this chapter, the researcher tells about the problems that comprise background of the study, statement of the problem, objectives of the study, significance of the study, and organization of the thesis.

Chapter II Review of Related Literature, in this chapter consists of theoretical background, previous research finding, theoretical framework and hypothesis.

Chapter III Research Methodology, in this chapter consists of research design, population, sample, data collection instrument, technique of data collection, technique of data analysis.

Chapter IV Research Finding, in this chapter consists of research location, data description, data analysis, and discussion.

Chapter V Closing, in this chapter consists of conclusion and suggestions.

## CHAPTER II

### LITERATURE REVIEW

#### A. Theoretical Background

##### 1. Field Independent

###### a. Definition of Field Independent

In learning style taxonomy that mentioned by Mary Ann Christison in Practical English Language Teaching (First Edition), there are three types of learning styles: (1) cognitive styles, (2) sensory styles, and (3) personality styles.<sup>19</sup> Cognitive style can be found in the way we learn things in general and the way we solve a problem seem to rely on a rather mysterious link between personality and cognition.<sup>20</sup> Saracho cites that the responses to a broad range of circumstances are referred to as “style,” and the approach surround in both the perceptual and intellectual undertakings is referred to as the “cognitive” style.<sup>21</sup> We can say that cognitive style as one of learning style classifications is defined as how someone processes information or solve problems in which affective and physiological aspects are working on together.

Field dependent-field independent is one important approach to the classification of cognitive styles which has been focused with major cognitive

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<sup>19</sup> David Nunan, Practical English Language Teaching 1<sup>st</sup> Edition, 270.

<sup>20</sup> H. Douglas Brown, Principles of Language Learning and Teaching Fifth Edition, 119.

<sup>21</sup> Olivia N. Saracho, *Teachers' and Students' Cognitive Styles in Early Childhood Eduation*, 10.

processes of perception, memory, and thought and a predominant approach of this subset of the cognitive or information-processing style concept. The ability to perform the perceptual analytic type tasks is included in this approach.<sup>22</sup> Field dependent independent (FDI) characterizes one way of perceiving, remembering, and thinking as an individual apprehends, stores, transforms, and processes information.<sup>23</sup> Similarly, Chapelle cites that FDI refers to how people perceive and memorize information.<sup>24</sup> We can say that the both field dependent/independent are the approaches or ways of individual to respond and work on the information.

Brown defines field independent as the ability to perceive a particular, relevant item of factor in a “field” of distracting items. He continues to define field dependence as the tendency to be “dependent” on the total field so that parts embedded within the field are not easily perceived, although that total field is perceived more clearly as a unified whole.<sup>25</sup> It means that field independent and dependent has the opposite classification. Field independent has definition as the ability to focus on relevant items of the field without any distraction from the irrelevant items. While, field dependent characterizes

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<sup>22</sup> Bob Pithers, *Field Dependence-Field Independence & Vocational Teacher* (December, 2000), 2.

<sup>23</sup> Olivia N. Saracho, *Teachers' and Students' Cognitive Styles in Early Childhood Education*, 9.

<sup>24</sup> Robert Wyss, *Field Independent/dependent Learning Styles and L2 Acquisition*, 1.

<sup>25</sup> H. Douglas Brown, *Principles of Language Learning and Teaching Fifth Edition*, 121.



someone who perceives the field as a unity, they do not perceive the parts within the field as different parts.

Furthermore, Witkin and his partners also mention that in a field-dependent mode, pattern recognition is strongly dominated by the holistic organization of the total perceptual field with its parts being perceived as 'fused'. In contrary, the field-independent mode of perceiving is more likely to see the parts of the field as distinct from the organized ground.<sup>26</sup> In addition, Witkin and Goodenough states field dependent-independent identified the degree of difficulty in separating an item from an organized field or overcoming an embedding context. Greater or less disembedding or analytic ability shows itself across an individual's perceptual and intellectual abilities. They continue that the original field dependent-independent concept proposes that field dependent individuals, who are limited in their ability to disembed figures, also have an interpersonal orientation. In contrary, field independent individuals are more competent in disembedding ability but have an impersonal orientation.<sup>27</sup> We can conclude that field dependent is good in social interaction, although has limitation in distinguish the relevant details among distracting items. On the other hand, field independent people who are have the ability to concern on the relevant items without be distracted by the irrelevant details is a 'difficult to socialize' person.

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<sup>26</sup>Bob Pithers, *Field Dependence-Field Independence & Vocational Teacher*, 3.

<sup>27</sup>Olivia N. Saracho, *Teachers' and Students' Cognitive Styles in Early Childhood Education*, 10-11.

## **b. Characteristics of Field Independent**

Witkin and Goodenough propose that field dependent-independent has 3 major constructs: (1) reliance on internal versus external referents; (2) cognitive restructuring skills; (3) interpersonal competencies.<sup>28</sup> The differences of the both field are which are more dominant the individuals and greater or less in overcoming the skills.

Saracho and Spodek compose nine specific characteristics of field independent: (1) analytical; (2) able to solve problems whose materials require structuring; (3) able to abstract an item from the surrounding field; (4) use specialized defenses such as intellectualization and isolation; (5) are independent of authority; (6) are dependent on their own values and standards; (7) are impersonal and socially detached; (8) favor occupations in which working with others is not essential, such as astronomy or physics; (9) favor impersonal abstract subjects, such as mathematics and the physical sciences.<sup>29</sup>

Ellis based on Hawkey listed the 4 basic characteristics of field independent: (1) depends on internal referents in processing information as a means of impersonal orientation; (2) recognizes parts as separate from the total field as a means of analytic; (3) sense of separate from others as a means of

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<sup>28</sup> Olivia N. Saracho, *Teachers' and Students' Cognitive Styles in Early Childhood Education*, 12.

<sup>29</sup> *Ibid*, 12.

independent; (4) has a less skill in social interaction as a means of socially sensitive.<sup>30</sup>

We can conclude that field independent can be detected if someone has three main constructs; (1) more specific in analyzing information, (2) able to distinguish the details from its surrounding context, and (3) impersonal and socially separated.

### **c. Advantages and Disadvantages of Field Independent**

Applying learning style can be a helpful way for students to overcome their problem in learning subjects. But, if students cannot apply it well, sometimes it contaminates the negative interplays. Likewise, it happens for field independent.

Brown says that field independent enables someone to distinguish parts from a whole, to concentrate on something (like reading a book in a noisy train station), or to analyze separate variables without the contamination of neighboring variables.<sup>31</sup> Similarly, Pithers cites that field independent individuals tend to be able to break up the given field organizational structure and locate a nominated structural part. Witkin et al., continues that field independent people are more capable of restructuring the perceptual field or imposing a structure if one is missing.<sup>32</sup>

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<sup>30</sup> Robert Wyss, *Field Independent/dependent Learning Styles and L2 Acquisition*, 2.

<sup>31</sup> H. Douglas Brown, *Principles of Language Learning and Teaching* Fifth Edition, 121.

<sup>32</sup> Bob Pithers, *Field Dependence-Field Independence & Vocational Teacher*, 3.

On the other hand, Brown says that too much field independent may result in cognitive “tunnel vision”; people see only the parts and not their relationship to the whole.<sup>33</sup> They also get ‘stuck’ on unfamiliar vocabulary or ambiguous grammar structures.<sup>34</sup> Moreover, field independent individuals are viewed as “cold” and “individualistic”.<sup>35</sup> It may be because of their preference to work on something by themselves as an individual.

Based on the statements above, we can see that there are positive and negative sides of field independent. We should be wise to apply this learning style to avoid the influence of disadvantages.

## **2. Reading**

### **a. Definition of reading**

Anderson states that reading can be defined simply as making meaning from print. He continues to define that reading is a fluent process of readers combining information from a text and their own background knowledge to build meaning.<sup>36</sup> Similarly, Johnson defines reading as the practice of using text to create meaning.<sup>37</sup> We can say that reading is a process in getting meaning from symbols of a written text.

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<sup>33</sup> H. Douglas Brown, *Principles of Language Learning and Teaching* Fifth Edition, 121.

<sup>34</sup> Robert Wyss, *Field Independent/dependent Learning Styles and L2 Acquisition*, 3.

<sup>35</sup> Mohammad Rostampour and Seyyedeh Mitra Niroomand, *Field Dependence/Independence Cognitive Style: Are They Significant at Different Levels of Vocabulary Knowledge?*, 52.

<sup>36</sup> David Nunan, *Practical English Language Teaching: Reading* (New York: The McGraw-Hill Companies, Inc., 2008), 2.

<sup>37</sup> Andrew P. Johnson, *Teaching Reading and Writing : A Guidebook For Tutoring and Remediating Students*, 3.



According to Mayer and Alexander, reading is the complex communicative behavior of deriving meaning from presented text.<sup>38</sup> Meanwhile, Marcel states that reading is that operation of the mind by which ideas are attached to the written words as the eye glances over them. Furthermore, he points that reading is a cognitive process whereby meaning is imposed on written symbols.<sup>39</sup> It means that cognition is involved in the reading process to recognizing the symbols of letters and words, so that meaning can be created.

Grabe in Richards and Renandya says that comprehension is the primary purpose for reading (though this is some time overlooked when students are asked to read overly difficult texts); raising student awareness of main ideas in a text and the organization of a text are essential for good comprehension.<sup>40</sup> Reading is the word that is properly used for all manner of activities when we try to make sense of circumstances; its original meaning was "interpretation." Making sense is a matter of interpreting, relating the situation you are in to everything you know already.<sup>41</sup> Making sense is the alternative term of comprehension and understanding.<sup>42</sup> Kintsch and Kieras shows that text comprehension is a matter of deriving and relating propositions drawn from

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<sup>38</sup> Richard Mayer and Patricia Alexander, *Handbook of Research On Learning and Instruction: Educational and Psychology handbook Series* (New York: Routledge, 2011), 7.

<sup>39</sup> A. P. R. Howatt, *A History of English Language Teaching* (Oxford: Oxford University Press, 1984), 155.

<sup>40</sup> Jack C. Richards and Willy A. Renandya, *Methodology in Language Teaching*, 277.

<sup>41</sup> Frank Smith, *Understanding Reading: A Psycholinguistics Analysis of Reading and Learning to Read* (New Jersey: Lawrence Erlbaum Associates, Inc., Publishers, 2004), 2.

<sup>42</sup> *Ibid*, 12.

the text. These propositions consist of abstractions of the text's main ideas. Schwartz adds that to understand texts, the reader must be able to infer cause-effect relations, prove hypotheses, infer implications, make value judgments, use logic, and understand abstract ideas.<sup>43</sup> It means that reading is activities to interpret texts through comprehension in order to achieve particular skills that the readers need to be achieved.

### **b. Reading Skills**

Harmer mentions 4 skills that are needed to acquire by the students:

1. Students must be able to scan the text which means that they do not have to read each words and line.
2. Students need to be able to skim a text which means that to get general idea by casting their eyes over the text surface.
3. Students make reading as a pleasure. It will make students more utilitarian with a library work.
4. Students use reading for detailed comprehension. It means that students are looking for detailed information.<sup>44</sup>

Brown classifies the reading skills into micro and macro skills. The micro skills of reading are:

1. Discriminate among the distinctive graphemes and orthographic patterns of English.

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<sup>43</sup> Steven Schwartz, *Measuring Reading Competence*, 86.

<sup>44</sup> Jeremy Harmer, *How to Teach English: An Introduction to The Practice English Language Teaching*, 69.

2. Retain chunks of language of different lengths in short-term memory.
3. Process writing at an efficient rate of speed to suit the purpose.
4. Recognize a core of words, and interpret word order patterns and their significance.
5. Recognize grammatical word classes (nouns, verbs, etc.), systems (e.g., tense, agreement, pluralization), patterns, rules, and elliptical forms.
6. Recognize that a particular meaning may be expressed in different grammatical forms.
7. Recognize cohesive devices in written discourse and their role in signaling the relationship between and among clauses.

He also describes the macro skills of reading. Those are:

1. Recognize the rhetorical forms of written discourse and their significance for interpretation.
2. Recognize the communicative functions of written texts, according to form and purpose.
3. Infer context that is not explicit by using background knowledge.
4. From described events, ideas, etc., infer links and connections between events, deduce causes and effects, and detect such relations as main idea, supporting idea, new information, given information, generalization, and exemplification.
5. Distinguish between literal and implied meanings.

6. Detect culturally specific references and interpret them in a context of the appropriate cultural schemata.
7. Develop and use a battery of reading strategies, such as scanning and skimming, detecting discourse markers, guessing the meaning of words from context, and activating schemata for the interpretation of texts.<sup>45</sup>

Ur gives her assumptions about reading skills. They are:

1. We need to perceive and decode letters in order to read words.
2. We need to understand all the words in order to understand the meaning of a text.
3. The more symbols (letters or words) there are in a text, the longer it will take to read it.
4. We gather meaning from what we read.
5. Our understanding of a text comes from understanding the words of which it is composed.<sup>46</sup>

### c. **Kinds of Reading**

Pugh, Lunzer, and Gardner in Hedge propose kinds of reading, they are:

1. Receptive reading is undertaken, for example, when a reader wants to enjoy a short story, follow a line of argument in a newspaper editorial or

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<sup>45</sup> Douglas Brown, *Language Assessment: Principles and Classroom Practices* (New York: Pearson Education, Inc, 2004), 187-188.

<sup>46</sup> Penny Ur, *A Course in Language Teaching: Practice and Theory* (United Kingdom: Cambridge University Press, 1999), 57.



understand the main stages in the text book description of manufacturing process.

2. Reflective reading involves episodes of reading the text and the pausing to reflect and backtrack, for example, when a reader wants to check whether a new line of arguments in a political text is consistent with opinions expressed earlier in the same article.
3. Skim reading is used to get a global impression of the context of a text. An example would be previewing a long magazine article by reading rapidly. Skipping large chunk of information, and focusing on heading and first line of paragraphs.
4. Scanning involve searching rapidly through a text to find a specific point of information, for example, the relevant times on a timetable, items in a directory, or key points in a academic text.
5. Intensive involves looking carefully at the text, as a student of literature would look at a poem to appreciate the choice of words, or as a solicitor would study the precise wording of legal document.<sup>47</sup>

Focusing to the kinds of reading above, there are two different approaches that are usually used by the teacher in the classroom, they are:

1. Intensive reading means students are expected to understand everything they read and to be able to answer detailed vocabulary and comprehension

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<sup>47</sup> Tricia Hedge, *Teaching and Learning in the Language Classroom* (Oxford: Oxford University Press, 2000), 195.

questions.<sup>48</sup> The aim of intensive reading is to help students obtain detailed meaning from the text, to develop reading skills; such as identifying main ideas and recognizing text connectors, and to enhance vocabulary and grammar knowledge.<sup>49</sup>

2. Extensive reading means students have a general understanding of the text without necessarily understanding every word.<sup>50</sup> The purpose of extensive reading is that learners read large quantities of books and other materials in an environment that nurtures a lifelong reading habit. Besides, this program share a common belief that the ability to read fluently is best achieved through an instructional program that emphasis reading extensively in the language.<sup>51</sup>

#### **d. Models of Reading**

According to Nunan, the models of reading can be divided into three categories:

1. Bottom-up model

This term has been used to describe the decoding of letters, words, and other language features in the text.<sup>52</sup> Brown describes bottom-up model as a process where readers must first recognize a multiplicity of linguistics signals (letters, morphemes, syllables, words, phrases, grammatical cues, discourse

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<sup>48</sup> Michael Lewis and Jimmie Hill, *Practical Technique for Language Teaching* (Hove Language Teaching Publication, 1997), 109.

<sup>49</sup> Jack C. Richards and Willy A. Renandya, *Methodology in Language Teaching*, 295-296.

<sup>50</sup> Michael Lewis and Jimmie Hill, *Practical Technique for Language Teaching*, 109.

<sup>51</sup> Jack C. Richards and Willy A. Renandya, *Methodology in Language Teaching*, 296.

<sup>52</sup> Tricia Hedge, *Teaching and Learning in the Language Classroom*, 189.

markers) and use their linguistics data-processing mechanisms to impose some sort of order on these signals.<sup>53</sup>

Students start with fundamental basics of letter and sound recognition, which in turn allows for morpheme recognition followed by word recognition, building up to the identification of grammatical structures, sentences, and longer texts. Letters, letters clusters, words, phrases, sentences, longer texts, and finally meaning is the order in achieving comprehension.<sup>54</sup>

## 2. Top-down model

The term of top-down has been used to describe the application of prior knowledge to working on the meaning of a text.<sup>55</sup> Brown also defines top-down models as a teaching model where readers understand a text through drawing on their own intelligence and experience.<sup>56</sup> It begins with the idea that comprehension resides in the reader. The reader uses background knowledge, makes predictions, and searches the text to confirm or reject the predictions that are made. A passage can thus be understood even if all of the individual words are not understood. Within a top-down approach to reading the teacher should focus on meaning generating activities rather than a mastery of word recognition.<sup>57</sup>

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<sup>53</sup> Douglas Brown, *Teaching by Principles: An Interactive Approach to Language Pedagogy* Second Edition (New York: Longman, 2007), 299.

<sup>54</sup> David Nunan, *Practical English Language Teaching* 1<sup>st</sup> Edition, 70.

<sup>55</sup> Tricia Hedge, *Teaching and Learning in the Language Classroom*, 189.

<sup>56</sup> Douglas Brown, *Teaching by Principles: An Interactive Approach to Language Pedagogy* Second Edition, 299.

<sup>57</sup> David Nunan, *Practical English Language Teaching* 1<sup>st</sup> Edition, 71.

### 3. Interactive model

This model begins with the ideas that both models are important to be applied together. Top-down model is used to predict probable meaning, and then shift to bottom-up to check whether that is really the writer says.<sup>58</sup> Shorter passage is provided by the teacher to teach specific reading skills and strategies explicitly. Besides, learners are encouraged to read longer texts without an emphasis on testing their skills.<sup>59</sup>

#### e. Students' Reading Achievement

In the Standards for test construction achievement is viewed basically as the competence a person has in an area of content. This competence is the result of many intellectual and nonintellectual variables. Achievement is the word preferred in the educational or psychometrics fields, being sometimes characterized by the degree of inference required on the part of the student to give a response, and by the type of reference to a cognitive process made explicit in the measurement tool.<sup>60</sup> We can conclude that students' reading achievement is the result during the academic processes which students achieve in reading subject. This achievement is usually derived from a test.

An achievement test is related directly to classroom lessons, units, or even a total curriculum. Achievement tests are (or should be) limited to

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<sup>58</sup> Douglas Brown, *Teaching by Principles: An Interactive Approach to Language Pedagogy* Second Edition, 299.

<sup>59</sup> David Nunan, *Practical English Language Teaching* 1<sup>st</sup> Edition, 72.

<sup>60</sup> Salvador Algarabel and Carmen Dasí, "The Definition of Achievement and the Construction of Tests for Its Measurement: A Review of the Main Trends," *Psicológica*, 22 (2001), 44-45.

particular material addressed in a curriculum within a particular time frame and are offered after a course has focused on the objectives in question.<sup>61</sup> An achievement test is a systematic procedure for determining the amount a student has learned. Achievement testing is viewed as an end-of-unit or end-of-course activity that is used primarily for assigning course grades. The main purpose of testing is to improve learning, and within this larger context there are a number of specific contributions it can make.<sup>62</sup>

#### **f. Approach of Reading Measurement**

To help the teacher decide whether aspects that teacher wants to measure in constructing reading test, three main approaches may be used by the teacher:

1. Logical analyses are nothing more than statements by test experts about what skills are necessary for reading. Typically, these analyses conclude that reading requires skills such as word recognition, sentence comprehension, fluency, and many more.
2. Statistical technique designed to reveal regularities among tests. It was originally developed as an aid to researchers attempting to define intelligence and was viewed as mainly an exploratory technique. That is, factor analysis was seen as a "useful tool in hypothesis formation rather than hypothesis testing". Factor analysis, in the reading context, is a means

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<sup>61</sup> Douglas Brown, *Language Assessment: Principles and Classroom Practice*, 47.

<sup>62</sup> Norman Edward Gronlund, *Constructing Achievement Tests* (New Jersey: Prentice-Hall, Inc., 1977), 1-2.



of determining relationships among skill measures to identify independent reading sub-skills.

3. Theoretical deductions are deciding reading aspects or skills which are wanted to be measured by developing theories of reading. These theories can be derived from psychological and psycholinguistics theories, information-processing theories, communication processes theories, and many more.<sup>63</sup>

## **B. Previous Study**

This study discusses about the correlation between field independent and students' reading achievement. Based on the statement, the research takes previous studies from journals. First, the journal titled "Field Dependence-Independence as a Variable in Second Language Cloze Test Performance" that is arranged by Charles Stansfield and Jacqueline Hansen. This paper reveals field independent individuals do indeed fill in the blanks on a Cloze Test more easily than do field dependent persons.

The difference between this research and the research of the journal above is that this paper explores the influence of one student characteristic, field dependent-independent cognitive style, on second language test performance, especially as it relates to performance on the integrative type of measure known as the cloze test. Meanwhile, the research that is conducted by the researcher tries

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<sup>63</sup> Steven Schwartz, *Measuring Reading Competence*, 48-51.

to find whether field independent has correlation with students' reading achievement.

Second, journal titled "Field Independence-Dependence and the Teaching of Grammar" that is arranged by Roberta G. Abraham. This paper reveals that field-independent subjects are performed better with the deductive lesson. It is consistent with earlier studies of this cognitive style; moreover, the additional finding that field dependent subjects performed better with the example lesson suggests a useful alternative, at least for some students, to the usual classroom approach of teaching grammar.

The difference between this research and the research of the journal above is that this paper discovers whether less rule-oriented teaching might prove more beneficial for field-dependent students. Meanwhile, the research explores how far field-independent correlates to the reading score.

Last, journal titled "A Comparative Study between Field-Independent and Field-Dependent Students in Reading Comprehension Achievement" by Dwi Artha Rini, Ujang Suparman, Sudirman. This paper proves that field-independent students are better than field-dependent students in reading comprehension achievement.

The differences between this research and the research of the journal above are: (1) this paper used the comparative design of research methodology. Meanwhile, the research uses the correlational design of research methodology. (2) This paper compared the result of students' reading achievement based on

their field dependent-independent performances, while the research tries to find out whether there is correlation between field independent and students' reading achievement.

### **C. Theoretical Framework**

In this research, there are two variables, they are:

X = Field Independent

Y = Students' Reading Achievement

In this research, there are two variables. Those are field independent as independent variable (X) and students' reading achievement as dependent variable (Y). From the two variables above, we can conclude that the theoretical framework as follow:

- a. The students' higher field independent, the better students' reading score.
- b. The students' lower field independent, the lower students' reading score.

### **D. Hypothesis**

- Ho: there is no significant correlation between field independent and students' reading achievement.
- Ha: there is significant correlation between field independent and students' reading achievement.

## CHAPTER III

### RESEARCH METHODOLOGY

#### A. Research Design

This research is a quantitative research. Quantitative research is based on the measurement of quantity or amount. It is applicable to phenomena that can be expressed in terms of quantity.<sup>64</sup> According to Creswell, quantitative research is a means for testing objective theories by examining the relationship among variables.<sup>65</sup>

The writer used the correlational study in this research. Correlational research involves the calculation of a correlation coefficient which is a measure of the extent to which variables vary in the same way.<sup>66</sup> According to Ary et al., the correlation indicates whether the relationship between paired scores is positive or negative and the strength of this relationship.<sup>67</sup> We can conclude that this research has aim to find out the correlation between two variables; variable (X) is field independent cognitive style and variable (Y) is students' reading achievement. Also, this research identifies the strength of the both variables relationship.

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<sup>64</sup> C.R. Khotari, *Research Methodology Methods and Techniques* 2<sup>nd</sup> Revised Edition (New Delhi: New Age International (P) Ltd., Publishers, 2004), 3.

<sup>65</sup> John Creswell, *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* 3<sup>rd</sup> Edition (USA: SAGE Publications, Inc., 2009), 4.

<sup>66</sup> Gary Anderson and Nancy Arsenault, *Fundamentals of Educational Research* 2<sup>nd</sup> Edition (UK: The Falmer Press, 1998), 118.

<sup>67</sup> Donald Ary, Lucy Cheser Jacobs, and Chris Sorensen, *Introduction to Research in Education* 6<sup>th</sup> Edition (Belmont: Wadsworth, 2010), 128.

## **B. Population and Sample**

### **1. Population**

A population is defined as all members of any well-defined class of people, events, or objects.<sup>68</sup> In the simple word, we can say that the population is all the people of the research take place.

From the definition above, the researcher decides that the population of this research is all of the fourth semester students of English Program at STAIN Ponorogo in academic year 2015/2016. The fourth semester students consists of 3 classes and total of the students are 80.

### **2. Sample**

Webster states that a sample can be defined as a finite part of a statistical population whose properties are used to make estimates about the population as a whole.<sup>69</sup> Meanwhile, the process of selection of sampling units from the population to estimate population parameters in such a way that the sample truly represents the population is called as sampling.<sup>70</sup>

Khotari mentions that there are two kinds of sampling: probability sampling and non-probability sampling.<sup>71</sup> This research uses the probability sampling. One of the types of probability sampling is simple random sampling. The basic

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<sup>68</sup>Ibid, 148.

<sup>69</sup> Kultar Singh, Quantitative Social Research Methods (New Delhi: Sage Publications India Pvt Ltd, 2007), 88.

<sup>70</sup> Ibid, 89.

<sup>71</sup> C.R. Khotari, Research Methodology Methods and Techniques 2<sup>nd</sup> Revised Edition, 58.



characteristic of simple random sampling is that all members of the population have an equal and independent chance of being included in the random sample.<sup>72</sup> For determining the amount of sample, the researcher uses the Isaac and Michael's formula. The formula as follow:

$$S = \frac{\lambda^2 N \cdot P(1 - P)}{d^2(N - 1) + \lambda^2 \cdot P(1 - P)}$$

Where:

S = Number of Sample

N = Number of Population

P = Proportion of Population

d = Degree of Accuration

$\lambda^2$  = Degree of trusty  $(0,95)^2 = 1,841$ <sup>73</sup>

The amount of sample for this research can be calculated below:

$$S = \frac{\lambda^2 \cdot N \cdot P(1 - P)}{d^2(N - 1) + \lambda^2 \cdot P(1 - P)}$$

$$S = \frac{1,841 \cdot 80 \cdot 0,5(1 - 0,5)}{(0,05)^2(80 - 1) + 1,841 \cdot 0,5(1 - 0,5)}$$

$$S = \frac{36,82}{0,1975 + 0,46025}$$

<sup>72</sup> Donald Ary et.al, Introduction to Research in Education 6<sup>th</sup> Edition, 150.

<sup>73</sup> Ating Somantri, Sambas Ali Muhidin, Aplikasi Statistika Dalam Penelitian (Bandung: Pustaka Setia, 2006), 101.

$$S = \frac{36,82}{0,65775}$$
$$= 55,97871$$
$$= 56 \text{ students}$$

### C. Technique of Data Collection

Instrument of data collection is a tool that is used by the researcher to get the data. The researcher uses two kinds of instrument: (1) questionnaire and (2) documentation or secondary data. The questionnaire is used to get the data about the field independent (variable X) and documentation to get the data about students' reading achievement (variable Y).

Before spreading the questionnaire, the researcher should do the prerequisite test. There are two kinds of prerequisite test for questionnaire. They are validity and reliability test.

#### 1. Validity test

Validity is the development of sound evidence to demonstrate that the intended test interpretation (of the concept or construct that the test is assumed to measure) matches the proposed purpose of the test. This evidence is based on test content, responses processes, internal structure, relations to other variables, and the consequences of testing.<sup>74</sup> Assessing the validity of score-based interpretations is important to the researcher because most instruments

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<sup>74</sup> John. W. Creswell, Educational Research: Planning, Conducting and Evaluating, Quantitative and Qualitative Research Fourth Edition (Boston: Pearson, 2012), 630.

used in educational and psychological investigations are designed for measuring hypothetical constructs.<sup>75</sup>

The size of a validity coefficient is influenced by the strength of the relationship between test and criterion and the range of individual differences in the group.<sup>76</sup> Because of that reason, the researcher uses the Pearson product moment formula to assess the validity. The steps to calculate the validity are:

- a. Make the table of item analysis of all questions.
- b. Make the table of item analysis of each question.
- c. Apply the data to the formula of Pearson product moment:

$$r_{xy} = \frac{\Sigma XY - \frac{(\Sigma X)(\Sigma Y)}{N}}{\sqrt{\left(\Sigma X^2 - \frac{(\Sigma X)^2}{N}\right)\left(\Sigma Y^2 - \frac{(\Sigma Y)^2}{N}\right)}}$$

Where:

$r_{xy}$	=	Pearson r
$\Sigma X$	=	sum of scores in X distribution
$\Sigma Y$	=	sum of scores in Y distribution
$\Sigma X^2$	=	sum of the squared scores in X distribution
$\Sigma Y^2$	=	sum of the squared scores in Y distribution
$\Sigma XY$	=	sum of products of paired X and Y scores
N	=	number of paired X and Y scores (subjects) <sup>77</sup>

<sup>75</sup> Donald Ary, Introduction to Research in Education 6<sup>th</sup> Edition, 225.

<sup>76</sup> Ibid, 230.

<sup>77</sup> Donald Ary et al, Introduction to Research in Education 6<sup>th</sup> Edition, 130.

d. Make an interpretation of the index of correlation ( $r_{xy}$ ) of each question.

The question item is valid if the correlation  $r_{xy} \geq 0,553$ . If the  $r_{xy} \leq 0,553$  the question item is invalid. The calculation can be seen in the appendix 2.

Finally, the result of the validity test is:

Table 3.1  
The Result of Validity Test

Question Number	$r_{xy}$	Criteria
1	0,64797	Valid
2	0,70489	Valid
3	0,58211	Valid
4	0,57579	Valid
5	<b>0,50443</b>	<b>Invalid</b>
6	0,56681	Valid
7	0,77811	Valid
8	<b>0,53840</b>	<b>Invalid</b>
9	<b>0,54216</b>	<b>Invalid</b>
10	<b>0,33922</b>	<b>Invalid</b>
11	<b>0,42865</b>	<b>Invalid</b>
12	0,71020	Valid
13	0,89330	Valid
14	<b>0,51655</b>	<b>Invalid</b>
15	0,64556	Valid

16	0,66385	Valid
17	0,58535	Valid
18	0,65777	Valid
19	0,58287	Valid
<b>20</b>	<b>0,28294</b>	<b>Invalid</b>
21	0,70901	Valid
22	0,75714	Valid

From the table above, there are 15 questions with the indexes of correlation  $\geq 0,553$ , those are number question 1, 2, 3, 4, 6, 7, 12, 13, 15, 16, 17, 18 19, 21, and 22. These valid questions are used as the instrument to the sample.

## 2. Reliability test

Reliability means that individual scores from an instrument should be nearly the same or stable on repeated administrations of the instrument and that they should be free from sources of measurement error and consistent.<sup>78</sup>

For calculating the reliability, the researcher uses **Cronbach Alpha**. The formula of Cronbach Alpha as follow:

$$\alpha = \left( \frac{K}{K - 1} \right) \left( \frac{S_x^2 - \sum S_i^2}{S_x^2} \right)$$

Where:

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<sup>78</sup> John. W. Creswell, Educational Research: Planning, Conducting and Evaluating, Quantitative and Qualitative Research Fourth Edition, 627.



$\alpha$	=	Instrument reliability coefficient
K	=	Number of items on the test
$\sum S_i^2$	=	Sum of variances of the item scores
$S_x^2$	=	Variance of the test scores (all K items) <sup>79</sup>

If the value of  $r_{xy} > r_{tabel}$ , the instrument is reliable. The result of reliability test is 0,91187695. Based on the result above the instrument is reliable because  $r_{xy} > r_{tabel}$ ,  $0,91187695 > 0,553$ . The complete calculation can be seen in appendix 3.

#### D. Instrument of Data Collection

In this research, the researcher uses a questionnaire and documentation to get the data. The questionnaires are used to get the data of the students' field independent and the documentation is used to get the data of the students' reading achievement.

##### 1. Questionnaire

Questionnaires are forms used in a survey design that participants in a study complete and return to the researcher. Participants mark answers to questions and supply basic, personal, or demographic information about themselves.<sup>80</sup> A questionnaire consists of a number of questions printed or

<sup>79</sup> Donald Ary et. al, Introduction to Research in Education 6<sup>th</sup> Edition, 246.

<sup>80</sup> John Cresswell, Educational Research: Planning, Conducting and Evaluating, Quantitative and Qualitative Research Fourth Edition, 626.

typed in a definite order on a form or set of forms.<sup>81</sup> The questionnaires are used to get the data of the students' field independent.

The researcher uses list questionnaire. This questionnaire works by asking the respondent to list things. It is a good way to find out views in an unbiased way. This open format forces the respondent to think up answers without having a list of 'acceptable' options from which to choose.<sup>82</sup>

The questionnaire applies Likert scale where the respondent is presented a sentence and is asked to agree or disagree on a three, five or seven-point scale. The way to use this scale is by making a clear statement and the respondent is asked to indicate whether the statement reflects his or her views.<sup>83</sup> For the questionnaire, the researcher decides to use five answer choices:

SS	(Sangat Setuju)	: 5 points
S	(Setuju)	: 4 points
KS	(Kurang Setuju)	: 3 points
TS	(Tidak Setuju)	: 2 points
STS	(Sangat Tidak Setuju)	: 1 points

To determine the field independent of the students, the researcher assumes that the field independent can be measured from its characteristics.

<sup>81</sup> C.R. Khotari, *Research Methodology Methods and Techniques* 2<sup>nd</sup> Revised Edition, 100.

<sup>82</sup> Gary Anderson and Nancy Arsenault, *Fundamentals of Educational Research* 2<sup>nd</sup> Edition, 183.

<sup>83</sup> *Ibid*, 184.

This research uses 7 of 9 characteristics that are composed by Saracho and Spodek; which are more suitable to be broken down into questionnaire. Then, the questionnaire is made by the researcher based on those 7 characteristics. Finally, the researcher spreads the questionnaire to the students. A blueprint of the questionnaire is illustrated in the following table:

Table 3.2  
Instrument of Data Collection

Variable	Indicators	Technique	Number of Items	
			Before test	After test
Variable X: Field Independent	Independent of authority	Questionnaire	1, 5, 7	1, 6
	Impersonal and socially separated		2, 8, 10, 13, 14, 20, 22	2, 8, 15
	Tend to be analytical		3, 4, 12, 16	3, 4, 7, 10
	Prefer not to work with others		6, 18	5, 12
	Prefer to choose impersonal subjects		9, 11, 17	11
	Has self values and standards		15, 19	9, 13
	Has specialized defenses		21	14
Variable Y: Student's Reading Achievement	Students' final score of Reading subject	Documentation		

## 2. Documentation

According to Khotari, documentation or secondary data means data that are already available i.e., they refer to the data which have already been collected and analyzed by someone else. He mentions that secondary data are available in: (1) various publications of the central, state and local governments; (2) various publications of foreign governments or of international bodies and their subsidiary organizations; (3) technical and trade journals; (4) books, magazines and newspapers; (5) reports and publications of various associations connected with business and industry, banks, stock exchanges, etc.; (6) reports prepared by research scholars, universities, economists, etc. in different fields; and (7) public records and statistics, historical documents, and other sources of published information.<sup>84</sup> In this research, the documentation is taken from the students' score of reading subject.

### E. Technique of Data Analysis

For analyzing the data, the researcher uses the formula of correlation. The formula of correlation used in this research is called Contingency Coefficient Correlation. The formula as follows<sup>85</sup>:

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<sup>84</sup> C.R. Khotari, *Research Methodology Methods and Techniques* 2<sup>nd</sup> Revised Edition, 111.

<sup>85</sup> *Ibid*, 250.

$$C = \sqrt{\frac{X^2}{X^2 + N}}$$

Where:

C = contingency coefficient

$\chi^2$  = Khai quadrate

N = number of cases

Calculate the statistics chi-square using the formula<sup>86</sup>:

$$\chi^2 = \sum \left( \frac{f_0 - f_e}{f_e} \right)^2$$

Where:

$\chi^2$  = value of chi square

$f_0$  = observed frequency

$f_e$  = expected frequency

Then, number of contingency coefficient is changed into Phi Contingency by using formula<sup>87</sup>:

$$\emptyset = \frac{C}{\sqrt{1 - C^2}}$$

Where:

$\emptyset$  = Phi Contingency

C = contingency coefficient

<sup>86</sup> Kultar Singh, Quantitative Social Research Methods, 128

<sup>87</sup> Retno Widyaningrum, Statistika (Yogyakarta: Pustaka Felicha. 2013), 135.



## CHAPTER IV

### RESEARCH FINDING

#### A. Research Location

##### 1. The history of STAIN Ponorogo

The history of State Islamic College (STAIN) of Ponorogo could not be separated from the history of IAIN Sunan Ampel of Surabaya. In the beginning of 1970, grew fast and succeeded to open 18 faculties, spreading in three provinces: East Java, East Kalimantan, and West Nusa Tenggara. One of the faculties of IAIN Sunan Ampel is *Syari'ah* Faculty of Ponorogo. On the 6<sup>th</sup> *Rabi'ul Awwal* 1390 Hijriyah, exactly in 12<sup>th</sup> May 1970, it was handover from Preparation Committee to Ministry of Religion of Indonesian Republic. At the same time, it began to open program named Program Sarjana Muda (SARMUD).

Started from academic year 1985/1986, *Syari'ah* Faculty of IAIN Sunan Ampel of Ponorogo grew and amended. It operated the doctoral program (S-1) by opening Qadha and Muamalah Jinayah Department. In addition, the President's decision number 11 about the founding of State of Islamic (STAIN) have been released and ratified by Ministry of Religion on 25<sup>th</sup> Syafar 1418 H/ 30<sup>th</sup> June 1997.

Based on the decision above, on the academic year 1997/1998 *Syari'ah* Faculty of Ponorogo changed its status from region faculty become STAIN. It was an organic unit under Religion Department and lead by the chairman who has a responsibility to Ministry of Religion, whereas the construction functionally is

operated by institutional general directorate of Islamic religion. The change of status of *Syari'ah* Faculty of IAIN Sunan Ampel become STAIN Ponorogo was decided based on revolved letter of instructional General Director of Islamic religion number E/136/1997. Since this change of status, State of Islamic College (STAIN) Ponorogo operated educational academic and professionalism by opening three departments; *Syari'ah*, Tarbiyah, and Ushuluddin.

## 2. Visions and mission of STAIN Ponorogo

### a. Vision of STAIN Ponorogo

State Islamic College of Ponorogo is the study center of Islamic knowledge development in order to create the Madani societies.

### b. Mission of STAIN Ponorogo

Implemented the learning process of Islamic knowledge and develop the academic, religious, and humanist condition.

## 3. Geographical position of State Islamic College of Ponorogo

State of Islamic College of Ponorogo is located at Pramuka street 156, Siman District Ponorogo Regency, that verge with:

- a. North side : Let. Jend. Suprpto Street, 1<sup>th</sup> gangway
- b. South side : The settlement of citizen of Menur Street
- c. East side : Let. Jend. Suprpto Street
- d. West side : Settlement

#### 4. Organizational Structure of STAIN Ponorogo

##### a. Head element

- 1) Chairman of State Islamic College
- 2) Deputy Chairman of the Academic Affair
- 3) Deputy Chairman of the Public Administration Affair
- 4) Deputy Chairman of the Students Affair

##### b. Senate of State Islamic College of Ponorogo

###### 1) Faculties

###### a) Syari'ah faculty

(a) Akhwal Al Syakh-shiyah

(b) Mu'amalah

###### b) Tarbiyah Faculty

(a) Islamic education (PAI)

(b) Arabic Education (PBA)

(c) Teacher Education of Madrasah Ibtidaiyah (PGMI)

(d) Tadris of English Education (TBI)

(e) Teacher Education of Kindergarten (PGRA)

(f) Management of Islamic Education (MPI)

###### c) Ushuluddin

(a) Tafsir Hadist

(b) Communication of Islamic Broadcast (KPI)

c. Lecturer

- 1) Permanent lecturer
- 2) Extraordinary lecturer
- 3) Guest lecturer

d. Research Center and Community Service

- 1) Division of research
- 2) Division of Community Service
- 3) Division of Publication
- 4) Division of Genre

e. Division of Administration

- 1) Head of Administration
- 2) Sub-section of Academic and Students Affairs
- 3) Sub-section of Official and Monetary
- 4) Sub-section of General

f. Element of Technical Executor

- 1) Library
- 2) Computer Center
- 3) Language Center
- 4) Education Quality Assurance Center

g. Element of Equipment

- 1) Students Old Fellow Association
- 2) Collegiate Organization
- 3) STAINPO Press
- 4) Woman Study Center<sup>88</sup>

## B. Data Description

In this research, the object is fourth semester students T1.A and T1.C of English Department at STAIN Ponorogo. There are 56 students.

In this chapter researcher explains each variable (Field Independent and Students's Reading Achievement) that are used in the computation. The researcher uses Contingency Coefficient for analyzing the data.

### 1. The data description of Field Independent

In this description, the researcher explains the way to find the data of Field Independent. To determine how Field Independent concern with students' reading achievement, the researcher uses questionnaire. The questionnaire consists of fifteen items by using Likert scale and there are five answer choices. The questionnaire is distributed to students by the researcher in their class. So the researcher gets score of questionnaire. The score of questionnaire is:

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<sup>88</sup> Tim Penyusun, Pedoman Penyelenggaraan Pendidikan Tahun Akademik 2015/ 2016 (Ponorogo: STAIN Ponorogo Press, 2015), 3-12.



Table 4.1  
Score of Field Independent

No.	Name of Students	Score
1	ILMA FATIMAH ANZAHRO	63
2	KARIMATUL ARISTYA	60
3	YENNY AFRIDA	63
4	DISTA TYAS AYU PRASTIWI	64
5	M. ADO RIZQI MARDHADITYA	56
6	MILATUL KARIMAH	48
7	NUR ISNAWATI	55
8	ANISA SULISTIANI	54
9	FARIDATUS SHOLIKHAH	41
10	LATIFATUN NAFIAH	54
11	WAHYU NI'MATUL ULYA	55
12	GALIH BRAMASTYO	53
13	WAHYU NOOR HAYATI	41
14	NANDA CHUMAYDAH ALAMANI	39
15	SHULIKAH RAHMA HANDAYANI	54
16	RINA ANGGUN KARTIKA	39
17	NURUL FAHIMAH ARIYANI	50
18	RISMAYYA RATNA LUTHFIDIAN	60
19	MUKTI FEBRIANA RAHAYU	54
20	YUHANITH ZAMARUDA	41
21	RINI ROHMAWATI	55

22	NUR RITA TRIA FEBRIANTY	55
23	RIMAYATUL INAYAH	62
24	RIKA SUSANTI	55
25	ANIK PRASETIYOWATI	55
26	NILA AMBARSARI	64
27	TRIA WIJAYANTI	53
28	NOVI LINDA RAHMATIKA	55
29	EKA KARTIKASARI	57
30	BINTI HAMIDATUS SYAFA'AH	62
31	YULI PUSPITASARI	59
32	RINA SRI AMBARWATI	65
33	PUGUH JIMANTORO	60
34	MIFTAKHUL NA'IM	57
35	NAWAWI	57
36	ALFINA QOMARIYAH	61
37	AFRIAN NOOR RIFAI	60
38	KUSNUL AFIFAH	54
39	LUDFIANA	53
40	HAPPY FITRIASARI	55
41	RINI SUSANTI	64
42	EFRILIA FEBRIANY	56
43	NISA' KHOIRUL FITRIANI	58
44	NENENG DWI CAHYANTI	55
45	MUDRIKAH	53

46	HAJAR QURBIYATULLAH HUSNA	67
47	IDA SETIYANINGSIH	55
48	DINA PERMATASARI	53
49	UMAR KISAH	55
50	ELIYA HIDAYATUR ROHMAH	55
51	DEWI YULIANTI	57
52	MARSINI	56
53	DEVI KUSUMANINGRUM	51
54	RIA RATNA UMAMI	55
55	CHINDY FINOVERA NANCY	51
56	WAHYU SRI REJEKI	59

## 2. The data description of Students' Reading Achievement

In this description, the researcher explains the way to find the data of students' reading achievement. To determine how the students' reading achievement, the researcher uses documentation. The documentation consists of the students' final reading score based on the students' presence, task, and the both of middle and final test in third semester that is scored by reading lecturer. The score of reading achievement is:

Table 4.2

Score of Students' Reading Achievement

No.	Name of Students	Score
1	ILMA FATIMAH ANZAHRO	2,75
2	KARIMATUL ARISTYA	3,25
3	YENNY AFRIDA	3
4	DISTA TYAS AYU PRASTIWI	3,25
5	M. ADO RIZQI MARDHADITYA	2,25
6	MILATUL KARIMAH	3,75
7	NUR ISNAWATI	2,75
8	ANISA SULISTIANI	3,25
9	FARIDATUS SHOLIKHAH	3,25
10	LATIFATUN NAFIAH	2,5
11	WAHYU NI'MATUL ULYA	2,75
12	GALIH BRAMASTYO	3,25
13	WAHYU NOOR HAYATI	3,5
14	NANDA CHUMAYDAH ALAMANI	3,25
15	SHULIKAH RAHMA HANDAYANI	3
16	RINA ANGGUN KARTIKA	3
17	NURUL FAHIMAH ARIYANI	2,75
18	RISMAYYA RATNA LUTHFIDIAN	3,25
19	MUKTI FEBRIANA RAHAYU	2,25
20	YUHANITH ZAMARUDA	2,5
21	RINI ROHMAWATI	2,75
22	NUR RITA TRIA FEBRIANTY	3
23	RIMAYATUL INAYAH	3

24	RIKA SUSANTI	3,25
25	ANIK PRASETIYOWATI	3,5
26	NILA AMBARSARI	3,25
27	TRIA WIJAYANTI	2,5
28	NOVI LINDA RAHMATIKA	3
29	EKA KARTIKASARI	2,5
30	BINTI HAMIDATUS SYAFA'AH	3,25
31	YULI PUSPITASARI	3,25
32	RINA SRI AMBARWATI	3,25
33	PUGUH JIMANTORO	3,5
34	MIFTAKHUL NA'IM	3,25
35	NAWAWI	3,25
36	ALFINA QOMARIYAH	2,5
37	AFRIAN NOOR RIFAI	3,75
38	KUSNUL AFIFAH	2,75
39	LUDFIANA	2,75
40	HAPPY FITRIASARI	2,75
41	RINI SUSANTI	3
42	EFRILIA FEBRIANY	3
43	NISA' KHOIRUL FITRIANI	2,75
44	NENENG DWI CAHYANTI	2,75
45	MUDRIKAH	2,25
46	HAJAR QURBIYATULLAH HUSNA	3,25
47	IDA SETIYANINGSIH	2,75



48	DINA PERMATASARI	3,25
49	UMAR KISAH	3,25
50	ELIYA HIDAYATUR ROHMAH	2,75
51	DEWI YULIANTI	3,75
52	MARSINI	3
53	DEVI KUSUMANINGRUM	1,75
54	RIA RATNA UMAMI	3
55	CHINDY FINOVERA NANCY	3,75
56	WAHYU SRI REJEKI	3

### C. Data Analysis

After getting the data, the researcher analyzes and also interprets it. The researcher analyzes mean, deviation standard of both Field Independent of the students and students' reading achievement, and correlation between Field Independent and students' reading achievement of fourth semester English Department students at STAIN Ponorogo.

#### 1. Data Analysis of Field Independent

Before answering the question whether there is correlation between field independent and students' reading achievement or not, the researcher have to analyze the data of field independent and students' reading achievement. Field independent or variable x is analyzed by applying the following the steps:

- a. Determine  $M_x$
- b. Determine  $SD_x$
- c. Determine top up of field independent's score
- d. Determine bottom of field independent
- e. Make an analysis of field independent

Table 4.3

The calculation data of Field Independent

No.	Name of Students	Score (x)	$x^2$
1	ILMA FATIMAH ANZAHRO	63	3969
2	KARIMATUL ARISTYA	60	3600
3	YENNY AFRIDA	63	3969
4	DISTA TYAS AYU PRASTIWI	64	4096
5	M. ADO RIZQI MARDHADITYA	56	3136
6	MILATUL KARIMAH	48	2304
7	NUR ISNAWATI	55	3025
8	ANISA SULISTIANI	54	2916
9	FARIDATUS SHOLIKHAH	41	1681
10	LATIFATUN NAFIAH	54	2916
11	WAHYU NI'MATUL ULYA	55	3025
12	GALIH BRAMASTYO	53	2809
13	WAHYU NOOR HAYATI	41	1681
14	NANDA CHUMAYDAH ALAMANI	39	1521
15	SHULIKAH RAHMA HANDAYANI	54	2916

16	RINA ANGGUN KARTIKA	39	1521
17	NURUL FAHIMAH ARIYANI	50	2500
18	RISMAYYA RATNA LUTHFIDIAN	60	3600
19	MUKTI FEBRIANA RAHAYU	54	2916
20	YUHANITH ZAMARUDA	41	1681
21	RINI ROHMAWATI	55	3025
22	NUR RITA TRIA FEBRIANTY	55	3025
23	RIMAYATUL INAYAH	62	3844
24	RIKA SUSANTI	55	3025
25	ANIK PRASETIYOWATI	55	3025
26	NILA AMBARSARI	64	4096
27	TRIA WIJAYANTI	53	2809
28	NOVI LINDA RAHMATIKA	55	3025
29	EKA KARTIKASARI	57	3249
30	BINTI HAMIDATUS SYAFA'AH	62	3844
31	YULI PUSPITASARI	59	3481
32	RINA SRI AMBARWATI	65	4225
33	PUGUH JIMANTORO	60	3600
34	MIFTAKHUL NA'IM	57	3249
35	NAWAWI	57	3249
36	ALFINA QOMARIYAH	61	3721
37	AFRIAN NOOR RIFAI	60	3600
38	KUSNUL AFIFAH	54	2916
39	LUDFIANA	53	2809

40	HAPPY FITRIASARI	55	3025
41	RINI SUSANTI	64	4096
42	EFRILIA FEBRIANY	56	3136
43	NISA' KHOIRUL FITRIANI	58	3364
44	NENENG DWI CAHYANTI	55	3025
45	MUDRIKAH	53	2809
46	HAJAR QURBIYATULLAH HUSNA	67	4489
47	IDA SETIYANINGSIH	55	3025
48	DINA PERMATASARI	53	2809
49	UMAR KISAH	55	3025
50	ELIYA HIDAYATUR ROHMAH	55	3025
51	DEWI YULIANTI	57	3249
52	MARSINI	56	3136
53	DEVI KUSUMANINGRUM	51	2601
54	RIA RATNA UMAMI	55	3025
55	CHINDY FINOVERA NANCY	51	2601
56	WAHYU SRI REJEKI	59	3481
	<b>Total</b>	<b>3098</b>	<b>173520</b>

- a. Determine Mean of variable x

$$\text{Mean} = \frac{\sum x}{n}$$

$$= \frac{3098}{56}$$

$$= 55,32143$$

b. Determine Deviation Standard of variable x

$$\begin{aligned}
 SD_x &= \sqrt{\frac{\sum x^2}{N} - \left[\frac{\sum x}{N}\right]^2} \\
 &= \sqrt{\frac{173520}{56} - \left[\frac{3098}{56}\right]^2} \\
 &= \sqrt{3098,57143 - 3060,46062} \\
 &= \sqrt{38,11081} \\
 &= 6,17339
 \end{aligned}$$

From the calculation above, it can be known that  $M_x = 55,32143$  and  $SD_x = 6,17339$ . Then, determine top up and bottom down score of variable x to find out the field independent's category.

- Score with  $M_x + 1.SD_x$  indicates that field independent is in high category.
- Score with  $M_x - 1.SD_x$  indicates that field independent is in low category.
- Score with between  $M_x - 1.SD_x$  and  $M_x + 1.SD_x$  indicate that field independent is in fair category.

For the calculating of field independent's category, it can be seen as follow:

$$\begin{aligned}
 M_x + 1.SD_x &= 55,32143 + 1 \times 6,17339 \\
 &= 61,49482 \\
 &= 61 \text{ (dibulatkan)}
 \end{aligned}$$



$$\begin{aligned}
 M_x - 1.SD_x &= 55,32143 - 1 \times 6,17339 \\
 &= 49,14804 \\
 &= 50 \text{ (dibulatkan)}
 \end{aligned}$$

Table 4.4

The data analysis of field independent

Score	F	Percentage	Category
>61	9	16,07%	High
50-61	41	73,21%	Fair
<50	6	10,72%	Low
<b>Total</b>	<b>56</b>	<b>100,00%</b>	

From the table above, it can be seen that field independent is very varieties. There are 16,07% or 9 students have high categorization to the field independent by scoring more than 61, 73,21% or 41 students have fair categorization to the field independent by scoring between 50-61, and 10,72% or 6 students have low categorization to the field independent by scoring less than 50.

## 2. Data Analysis of Students' Reading Achievement

After analyzing the field independent, then the researcher analyzes Students' reading achievement or variable y to find out whether their scores are included into good, fair, or bad categories. Students' reading achievement is analyzed by applying the following the steps:

- a. Determine  $M_y$

- b. Determine  $SD_y$
- c. Determine top up of students' reading score
- d. Determine bottom of reading score
- e. Make an analysis of students' reading achievement

Table 4.5

The calculation data of Students' Reading Achievement

No.	Name of Students	Score (y)	$y^2$
1	ILMA FATIMAH ANZAHRO	2,75	7,5625
2	KARIMATUL ARISTYA	3,25	10,5625
3	YENNY AFRIDA	3	9
4	DISTA TYAS AYU PRASTIWI	3,25	10,5625
5	M. ADO RIZQI MARDHADITYA	2,25	5,0625
6	MILATUL KARIMAH	3,75	14,0625
7	NUR ISNAWATI	2,75	7,5625
8	ANISA SULISTIANI	3,25	10,5625
9	FARIDATUS SHOLIKHAH	3,25	10,5625
10	LATIFATUN NAFIAH	2,5	6,25
11	WAHYU NI'MATUL ULYA	2,75	7,5625
12	GALIH BRAMASTYO	3,25	10,5625
13	WAHYU NOOR HAYATI	3,5	12,25
14	NANDA CHUMAYDAH ALAMANI	3,25	10,5625
15	SHULIKAH RAHMA HANDAYANI	3	9

16	RINA ANGGUN KARTIKA	3	9
17	NURUL FAHIMAH ARIYANI	2,75	7,5625
18	RISMAYYA RATNA LUTHFIDIAN	3,25	10,5625
19	MUKTI FEBRIANA RAHAYU	2,25	5,0625
20	YUHANITH ZAMARUDA	2,5	6,25
21	RINI ROHMAWATI	2,75	7,5625
22	NUR RITA TRIA FEBRIANTY	3	9
23	RIMAYATUL INAYAH	3	9
24	RIKA SUSANTI	3,25	10,5625
25	ANIK PRASETIYOWATI	3,5	12,25
26	NILA AMBARSARI	3,25	10,5625
27	TRIA WIJAYANTI	2,5	6,25
28	NOVI LINDA RAHMATIKA	3	9
29	EKA KARTIKASARI	2,5	6,25
30	BINTI HAMIDATUS SYAFA'AH	3,25	10,5625
31	YULI PUSPITASARI	3,25	10,5625
32	RINA SRI AMBARWATI	3,25	10,5625
33	PUGUH JIMANTORO	3,5	12,25
34	MIFTAKHUL NA'IM	3,25	10,5625
35	NAWAWI	3,25	10,5625
36	ALFINA QOMARIYAH	2,5	6,25
37	AFRIAN NOOR RIFAI	3,75	14,0625
38	KUSNUL AFIFAH	2,75	7,5625
39	LUDFIANA	2,75	7,5625

40	HAPPY FITRIASARI	2,75	7,5625
41	RINI SUSANTI	3	9
42	EFRILIA FEBRIANY	3	9
43	NISA' KHOIRUL FITRIANI	2,75	7,5625
44	NENENG DWI CAHYANTI	2,75	7,5625
45	MUDRIKAH	2,25	5,0625
46	HAJAR QURBIYATULLAH HUSNA	3,25	10,5625
47	IDA SETIYANINGSIH	2,75	7,5625
48	DINA PERMATASARI	3,25	10,5625
49	UMAR KISAH	3,25	10,5625
50	ELIYA HIDAYATUR ROHMAH	2,75	7,5625
51	DEWI YULIANTI	3,75	14,0625
52	MARSINI	3	9
53	DEVI KUSUMANINGRUM	1,75	3,0625
54	RIA RATNA UMAMI	3	9
55	CHINDY FINOVERA NANCY	3,75	14,0625
56	WAHYU SRI REJEKI	3	9
	<b>Total</b>	<b>167,75</b>	<b>511,8125</b>

a. Determine Mean of variable y

$$\begin{aligned}
 \text{Mean} &= \frac{\sum y}{n} \\
 &= \frac{167,75}{56} \\
 &= 2,99554
 \end{aligned}$$

b. Determine Deviation Standard of variable y

$$\begin{aligned}
 SD_x &= \sqrt{\frac{\sum y^2}{N} - \left[\frac{\sum y}{N}\right]^2} \\
 &= \sqrt{\frac{511,8182}{56} - \left[\frac{167,75}{56}\right]^2} \\
 &= \sqrt{9,13951 - 8,97326} \\
 &= \sqrt{0,16625} \\
 &= 0,40774
 \end{aligned}$$

From the calculation above, it can be known that  $M_y = 2,99554$  and  $SD_y = 0,40774$ . Then, determine top up and bottom down score of variable y to find out the students' reading achievement category.

- Score with  $M_y + 1.SD_y$  indicates that students' reading achievement is in good category.
- Score with  $M_y - 1.SD_y$  indicates that students' reading achievement is in bad category.
- Score with between  $M_y - 1.SD_y$  and  $M_y + 1.SD_y$  indicate that students' reading achievement is in fair category.

For the calculating of students' reading achievement category, it can be seen as follow:

$$\begin{aligned}
 M_y + 1.SD_y &= 2,99554 + 1 \times 0,40774 \\
 &= 3,40328
 \end{aligned}$$



$$= 3,4 \text{ (dibulatkan)}$$

$$My - 1.SDy = 2,99554 - 1 \times 0,40774$$

$$= 2,5878$$

$$= 2,6 \text{ (dibulatkan)}$$

Table 4.6

The data analysis of Students' Reading Achievement

Score	F	Percentage	Category
>3,4	7	12,5%	Good
2,6-3,4	40	71,42%	Fair
<2,6	9	16,08%	Bad
<b>Total</b>	<b>56</b>	<b>100,00%</b>	

From the table above, it can be seen that students' reading achievement is very varieties. There are 12,5% or 7 students have good categorization to the reading achievement by scoring more than 3,4, 71,42% or 40 students have fair categorization to the reading achievement by scoring between 2,6-3,4, and 16,08% or 9 students have bad categorization to the reading achievement by scoring less than 2,6.

### 3. Data Analysis of Correlation between Field Independent and Students' Reading Achievement

For analyzing data to find out the correlation between field independent and students' reading achievement, the researcher uses the following steps:

- a. Make a tabulation of variable x and y score and scoring based on its category.

Table 4.7

Score and category of Field Independent and Students' Reading Achievement

Name of Students	Variable x		Variable y	
	Score	Category*	Score	Category*
ILMA FATIMAH ANZAHRO	63	H	2,75	F
KARIMATUL ARISTYA	60	F	3,25	F
YENNY AFRIDA	63	H	3	F
DISTA TYAS AYU PRASTIWI	64	H	3,25	F
M. ADO RIZQI MARDHADITYA	56	F	2,25	B
MILATUL KARIMAH	48	L	3,75	G
NUR ISNAWATI	55	F	2,75	F
ANISA SULISTIANI	54	F	3,25	F
FARIDATUS SHOLIKHAH	41	L	3,25	F
LATIFATUN NAFIAH	54	F	2,5	B
WAHYU NI'MATUL ULYA	55	F	2,75	F

GALIH BRAMASTYO	53	F	3,25	F
WAHYU NOOR HAYATI	41	L	3,5	G
NANDA CHUMAYDAH ALAMANI	39	L	3,25	F
SHULIKAH RAHMA HANDAYANI	54	F	3	F
RINA ANGGUN KARTIKA	39	L	3	F
NURUL FAHIMAH ARIYANI	50	F	2,75	F
RISMAYYA RATNA LUTHFIDIAN	60	F	3,25	F
MUKTI FEBRIANA RAHAYU	54	F	2,25	B
YUHANITH ZAMARUDA	41	L	2,5	B
RINI ROHMAWATI	55	F	2,75	F
NUR RITA TRIA FEBRIANTY	55	F	3	F
RIMAYATUL INAYAH	62	H	3	F
RIKA SUSANTI	55	F	3,25	F
ANIK PRASETIYOWATI	55	F	3,5	G
NILA AMBARSARI	64	H	3,25	F
TRIA WIJAYANTI	53	F	2,5	B
NOVI LINDA RAHMATIKA	55	F	3	F
EKA KARTIKASARI	57	F	2,5	B
BINTI HAMIDATUS SYAFA'AH	62	H	3,25	F
YULI PUSPITASARI	59	F	3,25	F
RINA SRI AMBARWATI	65	H	3,25	F
PUGUH JIMANTORO	60	F	3,5	G
MIFTAKHUL NA'IM	57	F	3,25	F
NAWAWI	57	F	3,25	F

ALFINA QOMARIYAH	61	F	2,5	B
AFRIAN NOOR RIFAI	60	F	3,75	G
KUSNUL AFIFAH	54	F	2,75	F
LUDFIANA	53	F	2,75	F
HAPPY FITRIASARI	55	F	2,75	F
RINI SUSANTI	64	H	3	F
EFRILIA FEBRIANY	56	F	3	F
NISA' KHOIRUL FITRIANI	58	F	2,75	F
NENENG DWI CAHYANTI	55	F	2,75	F
MUDRIKAH	53	F	2,25	B
HAJAR QURBIYATULLAH HUSNA	67	H	3,25	F
IDA SETIYANINGSIH	55	F	2,75	F
DINA PERMATASARI	53	F	3,25	F
UMAR KISAH	55	F	3,25	F
ELIYA HIDAYATUR ROHMAH	55	F	2,75	F
DEWI YULIANTI	57	F	3,75	G
MARSINI	56	F	3	F
DEVI KUSUMANINGRUM	51	F	1,75	B
RIA RATNA UMAMI	55	F	3	F
CHINDY FINOVERA NANCY	51	F	3,75	G
WAHYU SRI REJEKI	59	F	3	F

<sup>\*)</sup> Variable x : H = High, F = Fair, L = Low;

Variable y : G = Good, F = Fair, B = Bad

- b. After knowing the result of scoring and categorizing for each variable, then collect the numbers into the following table:

Tabel 4.8

The categorization of Field Independent and Students' Reading Achievement

Field Independent	Students' Reading Achievement			Total
	Good	Fair	Bad	
High	0	9	0	9
Fair	5	28	8	41
Low	2	3	1	6
<b>Total</b>	<b>7</b>	<b>40</b>	<b>9</b>	<b>56</b>

c. Making the table of calculation

Tabel 4.9

The Calculation Table of Coefficient Contingency Correlation

Cell	Fo	Ft	fo-ft	(fo - ft) <sup>2</sup>	$\frac{(fo - ft)^2}{ft}$
1	0	$\frac{9 \times 7}{56}$	1,125	1,2656	0,0226
2	9	$\frac{9 \times 40}{56}$	6,42857	6,6122	1,0285
3	0	$\frac{9 \times 9}{56}$	1,44643	2,0921	1,4464
4	5	$\frac{41 \times 7}{56}$	5,125	0,0156	0,003
5	28	$\frac{41 \times 40}{56}$	29,28557	1,6527	0,0564
6	8	$\frac{41 \times 9}{56}$	6,58929	1,9901	0,302



7	2	$\frac{6 \times 7}{56}$	0,75	1,5625	2,0833
8	3	$\frac{6 \times 40}{56}$	4,28571	1,653	0,3857
9	1	$\frac{6 \times 9}{56}$	0,96429	0,0012	0,0013
	56			$\chi^2 = 6,4321$	

d. Change  $\chi^2$  into the contingency coefficient correlation with the formula:

$$\begin{aligned}
 C &= \sqrt{\frac{\chi^2}{\chi^2 + n}} \\
 &= \sqrt{\frac{6,4321}{6,4321 + 56}} \\
 &= \sqrt{\frac{6,4321}{62,4321}} \\
 &= \sqrt{0,1030} \\
 &= 0,3209
 \end{aligned}$$

e. After changing  $\chi^2$  into the contingency coefficient correlation, then give the interpretation of by changing C into the index of phi correlation ( $\emptyset$ ) as follow:

$$\begin{aligned}
 \emptyset &= \frac{C}{\sqrt{1 - C^2}} \\
 &= \frac{0,3209}{\sqrt{1 - (0,3209)^2}}
 \end{aligned}$$

$$\begin{aligned}
 &= \frac{0,3209}{\sqrt{1 - 0,1029}} \\
 &= \frac{0,3209}{\sqrt{0,8971}} \\
 &= \frac{0,3209}{0,9471} \\
 &= 0,3388
 \end{aligned}$$

- f. Before consulting  $\phi$  to the table of “r” Product Moment, the researcher need to analyses df with the formula:

$$\begin{aligned}
 df &= N - nr \\
 &= 56 - 2 \\
 &= 54
 \end{aligned}$$

In the table of “r” Product Moment, there is no  $df = 54$ . To get the value of  $df = 54$ , the researcher applies interpolation approach as the calculation below:

df	50	54	60
Value (with standard significance 5%)	0,273	x	0,25

$$\frac{50 - 60}{(0,273 - 0,25)} = \frac{(54 - 60)}{(x - 0,25)}$$

$$\frac{-10}{0,023} = \frac{-6}{(x - 0,25)}$$

$$10(x - 0,25) = 0,138$$

$$x - 0,25 = \frac{0,138}{10}$$

$$x - 0,25 = 0,0138$$

$$x = 0,0138 + 0,25$$

$$= 0,2638$$

From the calculation above, the researcher knows that  $df = 54$  with the significant standard 5% has value 0,2638. It means that  $\phi_{xy} = 0,3388$  and  $\phi_{table} = 0,2638$ . It means  $\phi_{xy} > \phi_{table}$ . We can conclude that  $H_0$  is rejected.

#### g. Discussion

Based on the analyzing of the data above, it can be known that the coefficient correlation contingency between field independent and students' reading achievement is 0,3388.

From the calculation in the data analysis above, the value of  $\phi_{xy}$  is 0,3388 and the value of  $\phi_{table}$  with  $df = 54$  and the significant 5% is 0,2638. It means  $\phi_{xy} > \phi_{table}$ .

From the statement above, it can be said that Alternative Hypothesis ( $H_a$ ) is received and Null Hypothesis ( $H_0$ ) is rejected. So, the  $\phi_{xy}$  calculation shows that field independent and students' reading achievement have correlation. As conclusion, there is correlation between field independent and students' reading achievement of fourth semester students at STAIN Ponorogo in academic year 2015/2016.

## CHAPTER V

### CLOSING

#### A. Conclusion

From the both of data description and analysis in this research, it can be concluded that:

There is correlation between field independent and students' reading achievement at STAIN Ponorogo in academic year 2015/2016. It can be proved from the result of the coefficient correlation in this research. Before knowing the result, the researcher has to find out how the both of field independent and students' reading achievement are. Field independent of the fourth semester students at STAIN Ponorogo is fair. It can be known from the result finding that shows the highest percentage is fair category with 41 students (73,21%). Then, there are 9 students (16,07%) with high category and 6 students (10,72%) are low in field independent. Meanwhile, students' reading achievement of fourth semester at STAIN Ponorogo is fair. It can be proved from the result finding that shows the highest percentage is fair with 40 students (71,42%). Then, there are 7 students (12,5%) have good score and 9 students (16,08%) have bad score in reading subject. Finally, the result of coefficient correlation is ( $\phi$ ) is 0,3388. With  $df = 54$ , the significant standard of 5% is 0,2638, so  $0,3388 > 0,2638$ . Because of  $\phi_{xy} > \phi_{table}$ , it

means that null hypothesis ( $H_0$ ) is rejected and alternative hypothesis ( $H_a$ ) is accepted.

## **B. Suggestion**

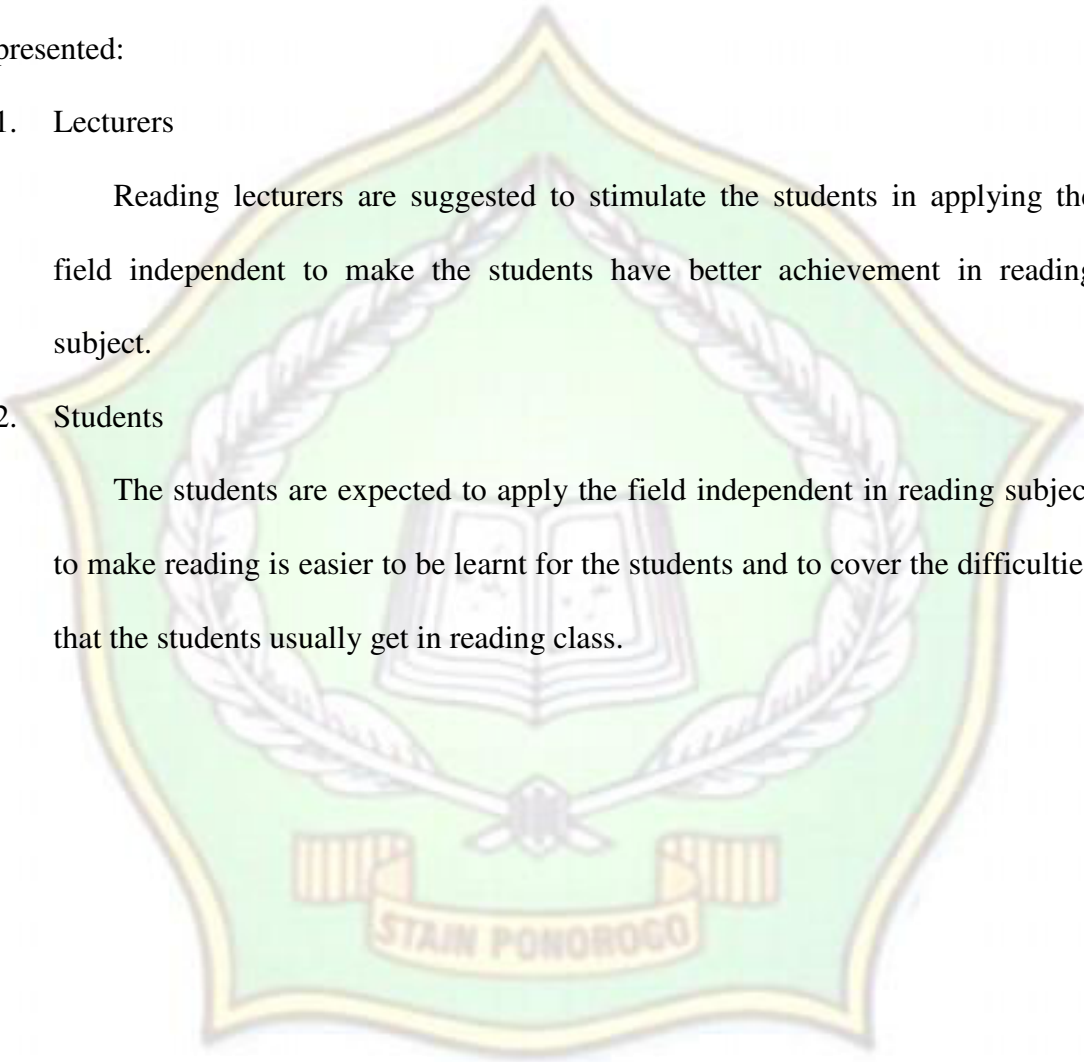
Based on the research finding, the researcher has some suggestions that to be presented:

### 1. Lecturers

Reading lecturers are suggested to stimulate the students in applying the field independent to make the students have better achievement in reading subject.

### 2. Students

The students are expected to apply the field independent in reading subject to make reading is easier to be learnt for the students and to cover the difficulties that the students usually get in reading class.





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