The Contribution of Cognitive Style to Reading Comprehension

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Abstract. This research is aimed at describing the cognitive styles and reading comprehension of the German Language students. Cognitive style is one of the significant aspects in determining the success of a student. Besides, Cognitive style or "thinking style" is a concept used in cognitive psychology to describe the way individuals think, perceive and remember information. Cognitive style can be defined as “the behavior pattern which implemented by the student during the learning process” therefore, each student’s cognitive style might be different and varies compared to the others. It was conducted using the descriptive method with the correlation design, which the data had been collected by using questionnaires and test. The sample is the German students in the 5th semester in the batch year of 2018-2019, with the total of the respondents were 24 students which has been randomly selected. The results of research show that t calculates is greater than t table (t cal = 3.058 > t tab = 2.074). It means that there is a significant correlation between cognitive style and learning outcomes of reading comprehension. This means that the higher a person’s cognitive style, the better learning outcomes are obtained.

Keywords: Cognitive Styles, Reading Comprehension

1. Introduction

Reading is one of the basic skills of language which is a complex activity that includes the ability to think, filter information to interpret meaning [1].

According to Snow, Learning to read well is a long-term developmental process. At the end point, the proficient adult reader can read a variety of materials with ease and interest, can read for varying purposes, and can read with comprehension even when the material is neither easy to understand nor intrinsically interesting. Snow add, that reading comprehension was informed by proficient readers who are capable of acquiring new knowledge and understanding new concepts, are capable of applying textual information appropriately, and are capable of being engaged in the reading process and reflecting on what is being read. The reader brings to the act of reading
his or her cognitive capabilities (attention, memory, critical analytic inferencing, visualization); motivation (a purpose for reading, interest in the content, self-efficacy as a reader); knowledge (vocabulary and topic knowledge, linguistic and discourse knowledge, knowledge of comprehension strategies); and experiences [2].

If we talk about reading comprehension, Djiwatampu, said that the process of reading comprehension is a cognitive process that occurs in the core search of reading through the interaction between elements in reading and prior knowledge of the reader (prior knowledge regarding language rules, reading topics and general knowledge [3].

Thus it can be said that the concentration of comprehending reading today is directed at understanding as an integrated process built through initial knowledge of what will be read as a basis for understanding new information. Therefore building readers cognitive knowledge is very much related with style or strategy created to achieve goals.

Cognitive style is a typical way students learn, both related to the way of receiving and processing information, attitudes toward information, as well as habits related to the learning environment [4]. Whereas according to Bruce Joyce, cognitive style is one of the variables of learning conditions which is one of the considerations in designing learning. Knowledge of cognitive style is needed to design or modify learning material, learning objectives, and learning methods. It is expected that with the interaction of cognitive style factors, goals, materials, and learning methods, student learning outcomes can be achieved to the maximum extent possible [5].

The position of cognitive style in the learning process cannot be ignored. This is consistent with Reigeluth's view that in teaching variables, cognitive style is one of the characteristics of students included in the learning conditions variable, in addition to other student characteristics such as motivation, attitudes, talents, interests, thinking skills, and others [6].

As one of the characteristics of students, the position of cognitive style in learning process is important to be considered by the teacher or lesson planners, because the learning design promoted by considering cognitive style means presenting learning material that is in accordance with the characteristics and potential of students. With a design like this, the learning atmosphere will be created. Besides, learning is adapted to cognitive processes or cognitive development of students.

Coop (1974: 251) explains that cognitive style refers to the consistency of modeling (patterning) displayed by a person in responding to various types of situations. Cognitive style refers to intellectual approaches (for example categorization and stimulus) and / or strategies in solving problems. This concept also reflects the efforts of psychologists to bridge the gap between individual personality factors and cognitive appearance. So that cognitive style is an integrated process that defines implicitly the bridge of the "personality-cognitive" dimension of the individual [7].

Witkin, et. al (1977:7) describe cognitive styles based on analytic global continuum that were divided in two categories: (1). Field-Independent (FI); namely people who are able to operate analytically and (2). Field Dependent (FD); people who are able to operate with a more global one [8]. While Witkin in Rofig, which was later
quoted back by Homalessy [9], said that Individuals who have an independent field cognitive style have characteristics such as; (1) has the ability to analyze to separate objects from their environment, (2) has the ability to organize objects, (3) has an impersonal orientation; (4) Choosing a profession that is individual; (5) prioritizing motivation and internal strengthening. This was added by Witkin in Ardana and Rahmana that people who have field independent cognitive style prefer to separate parts of a number of patterns and analyze them based on their components. On the contrary, Witkin said that people who have field dependent cognitive style have difficulty in distinguishing stimuli through the situation that they have so that their perceptions are easily influenced by manipulation of their surroundings.

In line with the opinions above Good and Brophy (1990: 612-613), explains that people with low psychological differential (field dependent) have difficulty in distinguishing stimuli from contexts where they are combined so that their perception is easily influenced by manipulation of the context around it. Whereas people with high psychological differentiation (field independent) are able to separate stimuli from context so that their perceptions are less affected if changes in context occur [10].

People who are field dependent tend to consider one pattern as a whole, not to separate one element from the total visual field. They have difficulty focusing on one aspect of the situation, finding important details, analyzing patterns into different parts or monitoring a use of strategies to solve problems. While someone belonging to the field independent is more likely to monitor the use of strategies for solving problems. Whereas people who are field independent are more likely to monitor their own information processing. They tend to look at separate parts of the whole pattern and are able to analyze according to its components (Woolfolk: 1998: 134) [11].

Based on the above description, it can be understood that cognitive style can be identified as a variable in learning. In this case, it is a characteristic of students and it is internal characteristics of students. It means that cognitive style is a person's capability that develops along with the development of intelligence. Students’ cognitive style is a given for them and it can affect their learning outcomes. Therefore, students who have certain cognitive styles need certain learning strategies to obtain good learning outcomes.

2. Methods

This research used descriptive method with correlation techniques, where researchers want to see the relationship between students' cognitive style and the ability to understand German text. This research was conducted at FKIP Unpatti, a student of the V semester German language study program 2018/019 academic year from August to September 2018, with a total sample of 24 people chosen randomly. GEFT test was used to measure students’ cognitive style of Fields Dependent and Field Independent students. There were 25 questions in the form of images in the test.
To measure the ability to understand German text, written tests were used. Data collected is processed and analyzed using t test with the product moment formula.

3. Results and Discussion

3.1 Results

The results of the study indicate that there is a high significant correlation between cognitive style and the ability to understand German text. After analyzing the data using product moment formula as a whole it turns out that the t count is greater than t table which is 3.058 > 2.074. The results shows that there is correlations. The data on cognitive style test results turned out that of the 24 respondents who worked on the GEFT test, 15 students had the Field Independent cognitive style and 9 had the Field Dependent cognitive style. Based on the results of the analysis for both cognitive style models associated with the results of the text comprehension ability it was found that students who have field independent cognitive style have high results also in the ability to understand the text. On the contrary, field dependent students who have cognitive style have lower ability in comprehending text.

3.2 Discussion

Cognitive style has its own characteristics, both field dependent and field independent. Every learner has different abilities in analyzing the reading material that is read. Besides being different in the level of problem solving skills, level of intelligence, or thinking ability, students can also differ in how to obtain, store and apply knowledge. They can differ in the way they approach learning situations, in the way they receive, organize and relate their experiences, and in the way they respond to certain teaching methods. Persistent interpersonal differences in how to organize and process information and these experiences are known as cognitive styles. Cognitive style refers to the way a person processes, stores or uses information to respond to a task. Every student based on the reality obtained both field dependent cognitive style and independent field cognitive style has its own implications related to learning. Global individuals are individuals who receive something more globally and have difficulty separating themselves from their surroundings or being more influenced by the environment. Individuals that are like this are called cognitive style Field Dependents (FD). While analytic individuals are individuals who tend to state something loose from the background of the picture, and being able to distinguish objects from the context of the individual around them is called cognitive style Field-Independent (FI).
4. Conclusion

Based on the results of the study it can be concluded that a person's cognitive style in understanding reading is very much determined by their own abilities. If a student has field Independent cognitive style means he is classified as having good analytical ability and if a student has a field dependent cognitive style it means that his analytical ability is low with a global way of thinking. Therefore the cognitive style and learning style of a person are related to each other. Every child has both different cognitive style and different learning style.

5. Reference


