CORRELATION BETWEEN STUDENTS' THINKING STYLE AND ACADEMIC ACHIEVEMENT

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Abstract

This study aimed to consider the relationship between students' thinking style and academic achievement. The researcher used correlational method. The population of this study was students at Madrasah Aliyah Negeri Cimahi. There were 30 students chosen as the sample. In collecting the data, this study used questionnaire that was developed from Sternberg's theory. In this theory, there were two forms of thinking style, which were global and local. Regarding the result, this study found that there was significant correlation between students' thinking style and their academic achievement. The level of significance was 0.00. This means that students' thinking style affected their achievement in school.

Keywords: Thinking styles, academic achievement, students

INTRODUCTION

Thinking styles is emphasized as different techniques used by the people in processing the data (Sternberg, 1997). It is the preferred ways of thinking (Nico and Sternberg, 1997). Thinking style is different from intelligence. Intelligence indicates to the individual potentials and abilities (Seif, 2008). In contrary, thinking style does not denote the ability. It shows the way individuals use their abilities (Sternberg, 1997). People use different thinking styles on different kinds of tasks; and it can change as we grow up and age. This statement is in line with Piaget, n.d.(1896-1980) who states that thinking ability would be increased as age and experiences increases.

According to Sternberg, (1997), thinking style is divided into five dimension. One of them is level. In this dimension, human thinking style is divided into two categories, which are global and local. An individual with a global style tends to have direct attention to global and abstract ideas. This individual likes to deal with big ideas, but sometimes can lose touch with the particular stuffs – the individual may see the forest, but lose track of the trees. People employing this style enjoy task that encourage them to think about major ideas and not have to worry about details. On the contrary, an individual with a local style tends to enjoy being engaged in tasks that allow to work with concrete details. This individual likes to work with the nitty-gritty, but may lose the forest for the trees. Individuals displaying this style tend to enjoy tasks that require them to keep track of details and focus on concrete specifics of a situation.

Academic achievement is one of the indicators of success in scientific activities. Pashaei et al, 2009 in (Fatemi, 2016) say that besides personality traits and family role, thinking style plays a major role in students' achievement. This is supported by (Zhang & Sternberg, 2002) who

state that person's thinking style affect the way students learn. As a result, it give an impact to their achievement.

The above theories indirectly state the relation between students' thinking style and their academic achievement. The studies related to this area have been basically done by several researcher. Grigorenko & Stenberg (1997), for example, investigated the role of thinking style in academic achievement. The result showed that style of thinking significantly contribute to students' academic performance. In addition, Casidy (2013) attempted to find out the relationship between students' thinking style and their academic achievement. She classified students' thinking styles based on the leanings dimension; which are liberal and conservative thinking styles. The result showed that the students who had conservative thinking style tended to be more succeed in their academic achievement.

It can be seen that those studies attempted to use several dimension of thinking style, but they have not yet touch the dimension of level. Based on the above reason, this study aims to investigate the relation between students' thinking styles in the dimension of level and students' academic achievement. The hypothesis of this study is as follow:

H_0: There is no significant relationship between student global thinking style and academic achievement

H_1: There is a significant relationship between student global thinking style and academic achievement

METHOD

The method of this study was correlational method. This method used to determine whether the thinking style related with academic achievement. The population was second grade students at Madrasah Aliyah Cimahi. Regarding the sample, there were thirty students selected as the sample. These students chosen because they seems to have different thingking style. For example, there are some student who hard to taking decision because of many consideration and some others seems careless on details. These students consisted only 30 Female.

To collect the data needed for this study, questionnaire was used. Questionnaire was adapted from Sternberg's theory about mental self-government. The questionnaire was consisted of 8 Questions. It used Likert Scale. Menawhile, for students' achievement, this study used the teacher's score. After the data was gathered, it was then analyzed by using SPSS 17.

RESULTS AND DISCUSSION

Results

As previously stated, Stenberg's questionnaire was used in investigated students' thinking style type. The questionnaire (K & Lavanya, 2016) reveals that there are 17 sudents who have local thinking style. On the other hand, 13 students have global thinking style (See Table 1). This indicates that most of students at Madrasah Aliyah Cimahi tend to have local thinking style.

Table 1. Students' Thinking Style

NAME	THINKING STYLE	NAME	THINKING STYLE
Student 1	Global	Student 16	Local
Student 2	Local	Student 17	Local

Student 3	Local	Student 18	Global
Student 4	Global	Student 19	Local
Student 5	Global	Student 20	Local
Student 6	Local	Student 21	Local
Student 7	Local	Student 22	Local
Student 8	Local	Student 23	Local
Student 9	Local	Student 24	Global
Student 10	Global	Student 25	Global
Student 11	Global	Student 26	Local
Student 12	Local	Student 27	Local
Student 13	Global	Student 28	Global
Student 14	Global	Student 29	Global
Student 15	Local	Student 30	Local

Regarding students' achievement, this study used the English test that was designed and already assessed by the teacher. From the teacher's score, it can be seen that there are 16 students with score 65 – 75 and 14 students with the score 75 – 100. In other words, most of the students (80%) get the lowest score. The following Table shows the students' score:

Table 2.Teacher's score

NAME	SCORE	NAME	SCORE
Student 1	65	Student 16	73
Student 2	70	Student 17	76
Student 3	73	Student 18	70
Student 4	66	Student 19	76
Student 5	65	Student 20	80
Student 6	81	Student 21	80
Student 7	80	Student 22	76
Student 8	81	Student 23	81
Student 9	82	Student 24	66
Student 10	70	Student 25	70
Student 11	70	Student 26	83
Student 12	76	Student 27	83
Student 13	65	Student 28	66
Student 14	65	Student 29	65
Student 15	73	Student 30	80

Meanwhile, to find out the relationship between students' global thinking style and academic achievement, Pearson Product Moment correlation test with significance level of 0, 05 was used. The result can be seen in the following:

Table 3. Correlation test of students global thinking style and academic achievement

		Thinking Style	Achievement
Thinking Style	Pearson Correlation	1	.872[**]
	Sig. (2-tailed)		.000
	N	13	13
Achievement	Pearson Correlation	.872[**]	1
	Sig. (2-tailed)	.000	
	N	13	13

From table 3, the correlation between students' global thinking style and academic achievement is 0.872 and the significance value is 0.000. Price correlation (Y) obtained is 0.872 which means the level of relation is very high. Because the significance value is less than 0,05. This indicates that there is a significant relationship between students' thinking style and academic achievement.

In addition, the following table shows the relation of students' local thinking style with their academic achievement:

Table 4. Correlation test of students local thinking style and academic achievement

		Thinking Style	Achievement
Thinking Style	Pearson Correlation	1	.902[**]
	Sig. (2-tailed)		.000
	N	17	17
Achievement	Pearson Correlation	.902[**]	1
	Sig. (2-tailed)	.000	
	N	17	17

From table 4, the correlation between students' local thinking style and academic achievement is 0.902 and the significance value is 0.000. Price correlation (Y) obtained is 0.902 which means the level of relation is very high. Because the significance value is less than 0,05, then there is a significant relationship between student thinking style and academic achievement.

Discussion

Based on the results above, there is an equally high relationship between student local or global thinking style and their academic achievement. The difference lies in the academic achievement. Students with local thinking style get greater score (0,902) than students with global thinking style (0,872). This means that the more students think in detail, the more they can focused on something, in this case, a test.

Students with have local thinking style usually require engagement with specific and concrete detail. It is proven by the grade in summative test. Student with local thinking style get greater grade than global thinking style. Although they always caught up spent too much time worrying for specific answer to put in theirs answer sheets, in case it is not necessary to explain the details. Somehow, students with local thinking style have the perfect score during Science practical work. They can enjoy the tasks that require them to keep track of details and focus on concrete specifics of a situation.

Different with students who have local thinking style, global thinking style usually hard to gain focus on details. They prefer large, global, and abstract ideas to specific details. Students with global thinking style seem to be more tantalized by big ideas than answering the summative test or Science practical work. They can make deals with big ideas in injury time. They usually develop the major ideas and not worry about the detail. Therefore, they can be good leaders because of their ability to think quickly and make best decision in limited time.

CONCLUSION

Denoting to the discussion of the research findings on the previous chapter, the researcher comes to the following conclusions. There is correlation between students' thinking style and academic achievement. The significant correlation is found out in students with local thinking style. This is because the students with this kind of thinking style tend to think detailly compared with the global one. As a result, they get the highest score in the test.

Based on the above conclusion, One important note from this research is, students who have global thinking style should train theirself to focus on details for gain good achievement as local thingking style do.

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