The Influence of Learning Styles toward Learning Outcomes at the Second Grade Students of Senior High School

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Abstract

There are many students not be able to recognize their individual learning styles so that they are less interested in absorbing the teaching materials that have been provided, and can affect their study English results. This research is aimed at finding out: (1) the students' Learning Styles (2) the influence of Learning Styles toward Learning Outcomes. Related to the aims of the research, Ex-Post Facto method was carried out. The Population was the second grade students of MAN 2 Parepare in academic year 2019-2020. XI IA1 and XI IA3 were taken as the sample which consists of 37 students. The instruments for collecting data were questionnaire and test. The data obtained were analyzed quantitatively by using Descriptive Analysis and Multiple Linear Regression. Based on the result of the Descriptive Analysis shows that (a) the dominance Learning Style of students is Visual Style with the frequency 18 student (49%) in High Category. (b) Learning Outcomes of students the most dominance is Low category with frequency 19 students (52%). Result analysis of Multiple Linear Regression shows that there is Significant Influence of Visual, Auditory, and Kinesthetic toward Learning Outcomes. It is proved by the data that F-test value is higher than F-table value (11.51 > 2.89). The coefficient of determination that has been adjusted (Adjusted R Square) is 46.7, which means Learning Outcomes as Dependent Variable explained by the Learning Styles as Independent Variable is 51.1%. While 48.9 % is explained by variables outside the variables that used in this research.

Keywords: Visual Learning Style, Auditory Learning Style, Kinesthetic Learning Style, Learning Outcomes

A. Introduction

In essence, learning is a process of interaction to the all situation around the individual environment. It can be also called as process of guidance to the objectives and doing through experiences, those are seeing, observing, and comprehending about something (Rusman, 2011). Every child follows its own unique way to learn and process information. They learn material in different ways. Learning style can be described as a set of factors, behaviors, and attitudes that facilitate learning for an individual in a particular situation. It is the ability of learners to perceive and process information in learning situations. There are three models (types) in learning styles that are visual, auditorial, and kinesthetic (Deporter&Hemacki, 2000).

The result of interviews with one of teacher in MAN 2 Parepare obtained information that average English Learning outcomes of the second grade remains under KKM standards, and also described several cases, among others there are students whose not able to recognize their individual learning styles so that they are less interested in absorbing the teaching materials that have been provided, and can affect the study results. Based on the phenomenon above, the cases related Learning Styles in studying English so it can be argued there is an indication that Learning Styles related to English learning outcomes that achieved by students.

There are some researchers who have conclude the research related Learning Styles toward Learning Outcomes. According to Abidin, M.J.Z., Rezaee, A.A., et al (2011) there is significant relationship between overall academic achievement and learning styles. It was also found that the high, moderate and low achievers have a similar preference pattern of learning in all learning styles. Then, Damavandi, A.J., Mahyuddin, R., et al (2011) found that there statically significant difference in the academic achievement of the Iranian students that correspond to the four learning styles.

Besides that, Vaishnav, R.S., (2013) found that the main effects of the three variables - visual, auditory and kinesthetic are significant on academic achievement. Then Sasi, Aprita, D (2013) the result show that the students of English Study Program in structure analysis class use three types of learning style. The first type is auditory which is mostly used by the students and it is followed by kinesthetic and visual. Moreover, the writer also finds that the students' learning style influences the final test score.

Based on the previous findings, it can be seen that Learning Styles have significant relationship toward academic achievement and three types of learning styles (Visual, Auditory, Kinesthetic) is significant and influence the Academic achievement. The main problems of previous researches are no one

of the previous findings is talking about the influence of Learning Styles toward English Learning Outcomes. Nevertheless, the studies above become the basic theories for the researcher to investigate the Influence of Learning Styles toward English Learning Outcomes. Related to the previous findings, the researcher assumes that Learning Styles has an important role toward Learning Outcomes. Because of that, in this case the researcher is interested in conducting a research about the influence of Learning Styles toward Learning Outcomes.

B. Research Methodology

The design of this research was Ex-post Facto. Treatment on ex-post facto research has occurred before the researcher doing a treatment. The researcher did not control toward the treatment and just retrieve the data about the influence of independent variables toward dependent variable that researched.

The sample was taken by using Cluster Random Sampling technique by taking population from five classes at the second grade students then the classes are collected and random. At last the researcher gets classes XI IA1 and XI IA3 as sample of this research. Therefore, the total sample of this research is Thirty Seven.

The researcher used two kinds of instrument in collecting data, namely Questionnaire and Test.The Questionnaire which is based on the indicators of Learning Styles. Indicators of Learning Styles are Visual, Auditory, and Kinesthetic. Alternative answer on Learning Styles questionnaire will be used a Likert Scale. There are four point scale which is used to allow the individual to express how much they always or never with a particular statement. The formats of a typical four-level Likert item are Always (Selalu), Often (Sering), Sometime (Kadang-Kadang) and Never (Tidak Pernah). Then, for the form of test is multiple-choice questions that cover the English material of Second Grade of Senior High School semester two.

The analysis of data is descriptive analysis, inferential Analysis, and multiple linear regression analysis.

C. Findings

There are two calculation stages which are used in this research they are calculation the learning styles and learning outcomes of students and calculation the influence of learning styles toward their learning outcomes.

Research results data were analyzed descriptively by using simple statistics and percentages (%) for learning Styles. While the Influence of learning Styles toward Learning Outcomes analyzed using Multiple Linear Regression and ANOVA through SPSS.

The description of each Learning Style of students in this study as follows:
1. Visual Style

To determination the classification condition of each variable and for present value of frequency then the calculation length of Interval class determined. The result indicates that no students who have visual learning style in the very low category, 9 students who have visual learning style in the low category, 10 students who have visual learning style in the fair category, 18 students who have visual learning style in the high category and there is no student who have visual learning style in very high category. Based the result can concluded that Visual Style of students in High Category.

2. Auditory Style

The respondents' assessment on an auditory learning style show that no student who has auditory learning style in the very low category, 4 students who have auditory learning style in the low category, 14 students who have auditory learning style in the fair category, 17 students who have auditory learning styles in the high category and 2 students who have auditory learning styles in very high category. Based the result can concluded that Auditory Style of students in High Category.

3. Kinesthetic Style

The respondents' assessment on a kinesthetic learning style show that no student who has kinesthetic learning style in the very low category, 5 students who have kinesthetic learning style in the low category, 20 students who have kinesthetic learning style in the fair category, 10 students who have kinesthetic learning style in the High category high and 2 students who have kinesthetic learning style in very high category. Based the result can concluded that Kinesthetic Style of students in Fair Category.

Based on the data from the test to know their score in Learning Outcomes, it show that there are 6 students have English learning outcomes in very low category, 19 students have English learning Outcomes in the low category, 9 students have English learning outcomes in Fair category, 3 students have English learning Outcomes in the high category, and no student has English Learning Outcomes in very high category. Based the result can concluded that Learning Outcomes of students in Fair Category.

Meanwhile first step to regression analysis is testing Normality and Linearity test. One of the conditions in parametric statistics is the normal distribution of data.

1. Normality Test

In this research, the researcher use Kolmogorov-Smirnov by SPSS. The result of analysis as follow:

a. Visual Style toward Learning Outcomes, based the analysis, known that the significance value is $(0,20) > (0,05)$ it means that the data is normally distributed.

b. Auditory Style toward Learning Outcomes with significance value is $(0,20) > (0,05)$ it means that the data is normally distributed.

c. Kinesthetic Style toward learning Outcomes with Significance value is $(0,13) > (0,05)$ it means that the data is normally distributed.

From all of the result above, we can conclude that all of data is normally distributed.

2. Linearity Test

After doing normality test then the researcher doing Linearity test. Linearity test is used to determine whether the two variables have a linear relationship or not significantly. The test is usually used as a requirement in linear regression. Based ANOVA table Visual Style toward Learning Outcomes has p value is (0,03) < (0,05) it means that not linear. Then p value Auditory Style is (0,70) > (0,05) and Kinesthetic Style is (0,24) > (0,05) it means that relationship both of them toward learning outcomes is Linear.

After fulfillment of the assumptions of regression analysis, Result of Multiple Linear Regression as follows:

51,033 + 1,427 Visual (X1) + 1,381 Auditory (X2) + 0,992 Kinesthetic (X3)

In a multiple regression equation above, it is known understanding that Constants is 51,033, if there is no learning styles variable (X), the learning outcomes that will be obtained is 51,033.Each Regression coefficient value of Learning Styles (VAK), if 1 unit increases in Learning Style will have effect of raising Learning Outcomes.

Then, the coefficient of multiple determinations (R2) shows how much influence the independent variable (Learning Styles) toward dependent variable (the learning achievement) simultaneously. The value of coefficient determination (R2) is 0.511. This means 51% of the change in the value of Learning Outcomes is influenced by Learning Styles. While the rest of 49% influenced by other variables outside variables used in this study.

In this research, there are two testing hypotheses to be used in this research are F test and T test.

1. F-Test

To testing the hypothesis coefficients used F- test to determine the influence of Independent Variable (Learning Styles) simultaneously toward Dependent variable (Learning Outcomes). From the table Anova obtained F test is 11,51 with sig = 0.000 < α = 0.05, then the conclusion is Ho rejected and Ha accepted because F test > than F table (2.89) and Significant value (0.00) < Standard Significant (0.05) . It means that there is significant influence of Learning Styles toward Learning Outcomes.

2. T-Test

To testing hypothesis coefficient used T-test to determine the Influence of Independent Variable (Learning Styles) partially toward Dependent Variable (Learning Outcomes). Then the results can be seen as follows:

T-test of Visual Style > than T- table (3.170) > (2.034) with a significant level (0.003) < (0.05). Based the decision making of the partial test in the regression analysis can be summarized that Ha accepted and Ho rejected. It means that there is significant influence of Visual Learning Styles toward Learning Outcomes.

T-test of Auditory Style > than T- table (2,289) > (2,034) with a significant level (0,029) < (0,05). Based the decision making of the partial test in the regression analysis can be summarized that Ha accepted and Ho rejected. It means that there is significant influence of Auditory Learning Styles toward Learning Outcomes.

T-test of Kinesthetic Style < than T- table (1,708) < (2,034) with a significant level (0,097) > (0,05). Based the decision making of the partial test in the regression analysis can be summarized that Ho accepted and Ha

rejected. It means that there is no significant Influence of Kinesthetic Learning Styles toward Learning   Outcomes.

D. Discussion

1. *Description Learning styles of students*

a. Visual Learning Style

Based on the results research was conducted at the second grade students of MAN 2 Parepare, the respondents' assessment on visual learning style is no students who have visual learning style in the very low category, 9 students who have visual learning style in the low category, 10 students who have visual learning style in the fair category, 18 students who have visual learning style in the high category and there is no student who have visual learning style in very high category. It can be concluded that visual learning style of students in the high category because from 37 students there are 18 students have high visual learning style.

b. Auditory Learning Style

Based on the results research was conducted at the second grade students of MAN 2 Parepare, the respondents' assessment on auditory learning style is no student who has auditory learning style in the very low category, 4 students who have auditory learning style in the low category, 14 students who have auditory learning style in the fair category, 17students who have auditory learning styles in the high category and 2 students who have auditory learning styles in very high category. It can be concluded that auditory style of students in the high category because from 37 students there are 17 students have high auditory learning style.

c. Kinesthetic Learning Style

Based on the results research was conducted at the second grade students of MAN 2 Parepare, the respondents' assessment on kinesthetic learning style is no student who has kinesthetic learning style in the very low category, 5 students who have kinesthetic learning style in the low category, 20 students who have kinesthetic learning style in the fair category, 10 students who have kinesthetic learning style in the High category high and 2 students who have kinesthetic learning style in very high category. It can be concluded that kinesthetic style of students in the fair category because from 37 students there are 20 students have fair kinesthetic learning style.

2. *Description Learning Outcomes of Students*

Based on the results research was conducted at the second grade students of MAN 2 Parepare, the Learning Outcomes of Students From the table above shows that there are 6 students have English learning outcomes in very low category, 19 students have English learning Outcomes in the low category, 9 students have English learning outcomes in High category, 3 students have English learning Outcomes in the high category, and no student has English Learning Outcomes in very high category. It means that English Learning Outcomes of students in Low category because from 37 students there are 19 students have score in low category.

3. The Influence of Learning Styles toward Learning Outcomes

Based on research results indicate that Learning Styles (Visual, Auditory, Kinesthetic) simultaneous given significant influence toward learning outcomes of second grade students of MAN 2 Parepare because F count is 11,51 with sig = 0.00 < α = 0.05, These results prove direct the significant influence of learning styles toward learning outcomes. This study is similar to Mohammed, Abbas, Helan, Kiranjit (2011) there is significant relationship between overall academic achievement and learning styles. Then Rajshree S. Vaishnav (2013) found that the main effects of the three variables - visual, auditory and kinesthetic are significant on academic achievement. Because of these different learning styles, it is important for teachers to incorporate in their curriculum activities related to each of these learning styles so that all students are able to succeed in their classes. While we use all of our senses to take in information, we each seem to have preferences in how we learn best. In order to help all students learn, we need to teach to as many of these preferences as possible (Cuaresma, 2008). Furthermore, the influence of Learning Styles toward Learning Outcomes partially as follows:

a. Visual Learning Style

Based on research results indicate that Visual Learning Style given significant influence toward learning outcomes of second grade students of MAN 2 Parepare because T-value of Visual Style > than T- table (3,170) > (2,034) with a significant level (0,003) < (0,05). These results prove direct the significant influence of Visual learning style toward learning outcomes.

b. Auditory Learning Style

Based on research results indicate that Auditory Learning Style given significant influence toward learning outcomes of second grade students of MAN 2 Parepare because T-value of Auditory Style > than T- table (2,289) > (2,034) with a significant level (0,029) < (0,05). These results prove direct the significant influence of Visual learning style toward learning outcomes.

c. Kinesthetic Learning Style

Based on research results indicate that Kinesthetic Learning Style not given significant influence toward learning outcomes of second grade students of MAN 2 Parepare because T-value of Kinesthetic Style < than T- table (1,708) < (2,034) with a significant level (0,097) > (0,05). These results prove direct that there is not significant influence of Kinesthetic learning style toward learning outcomes.

Learning style is the tendency of students to adapt strategies in the learning process, as a form of responsibility to obtain a learning approach that in accordance with the demands of learning in class as well as the demands of the subjects (Nasution, 2010) in Tirtana Arif (2011). Learning Style is the key to developing performance in job, schools and in interpersonal situations. Therefore, learning style would influence someone to absorb and manage the information that will influence learning outcomes that will to be achieved.

Learners will learn well and good in learning outcomes if they understand their learning style

E. Conclusion

Based on the results research was conducted at the second grade students of MAN 2 Parepare, the respondents' assessment on Visual and Auditory Style it can be concluded that both of learning style of students in the high category while kinesthetic style in the fair category. For Students' Learning Outcomes of the second grade students of Man 2 Parepare, found that Learning Outcomes of students in Low category because from 37 students there are 19 students have score in low category. The Influence of Learning Style toward Learning Outcomes from the Result research obtained F count is 11,51 with sig = 0.009 < α = 0.05, then the conclusion is Ho rejected and Ha accepted because F count > than F table (2,89) and Significant value (0,00) < Standard Significant (0,05) . It means that there is significant influence of Learning Styles toward Learning Outcomes. By looking at the magnitude of the Influence between the student's learning style and learning outcomes, then the task of the teacher to help the students to get to know individual learning styles, because by knowing the their learning style, students can quickly catch, process and store information or lessons are given.

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