

The Implementation of Ice and Snow Enrichment Book to Students' Openness Personality

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Abstract— The purpose of this research is to find the effect of ice and snow enrichment book which have been developed to students' openness personality. This research has a hypothesis that the implementation of ice and snow which has been developed have an effect to student's openness personality. The research method which is used in this research is quasi experiment. Results show that using ice and snow enrichment book increases students' openness personality by 6.7%, while the rest of 93.3% influenced by other factors outside of this research. Then, if students not using ice and snow enrichment book variable, the value of students' openness personality is 29.761. Then, the value 0.138 indicates that each addition of 1 score of using ice and snow enrichment book, students' openness personality value increased by 1.725. So, from the results and discussion, it can be concluded that ice and snow enrichment have significant effect on students' openness personality.

Keywords— ice and snow enrichment book, students' openness personality, quasi experiment

I. INTRODUCTION

Nowadays, the implementation of learning process must be conducted in fun and meaningful way. Meaningful learning occurs when new learning can be related to previous knowledge [1]. In learning process, students have for acquiring new knowledge, meaning making, and storing information [2]. Meaningful Learning has as a main characteristic the interaction between previous knowledges and new knowledges. In general, meaningful learning is a process whereby symbolic expressed ideas interact in a meaningful way with student's previous experiences, allowing them to redefine and enlarge their knowledge [3]. With meaningful learning, students are able to conscientiously choose to connect new knowledge with prior knowledge possessed in their long-term memory [4]. So, a learning is meaningful when students are able to link the previous knowledge with new knowledge which have been known currently.

Enrichment program is given to students who have been passed the minimum criteria which has been determined by teacher. There's some enrichment program which teacher can give to students, one of them is to ask students to read enrichment book.

Enrichment books are defined as books that contain material that can enrich and enhance the mastery of science, technology, and art (science and technology) and skills; shape the personality of students, educators, education managers, and other communities [5]. Enrichment books are books that can develop students' knowledge development, not as science (both for natural and social sciences) which is a field of study [6]. Enrichment books can increase student

insight are rarely read given the availability in schools is also still small [7]. The enrichment book can be used as a source of students' independent learning so that they can gain broader and deeper knowledge [8]. Enrichment book as a learning supplementary book, has a function to accompany textbooks, with the aim to increase knowledge and insight of students, help to shape the students' personality, and as a means of developing students' skills [9]. The enrichment book contains certain topics in the curriculum but more broadly and/or deeper [10]. According to the explanation above, the implementation of enrichment book is considered important to improve students' insight.

Unfortunately, based on observations which have been done in some Junior High School, the existence of enrichment books in schools is still very small, even some students did not even know about the enrichment book. This problem motivated researchers and book writers to compete in developing an enrichment book which can be used as material for enrichment programs in schools. One enrichment book that has been successfully developed is enrichment book about ice and snow.

It has been clarified that the enrichment book is able to enrich students' insights about a subject they do not get in the classroom. The next question arises after the enrichment book is developed. Is it true that the enrichment book that has been developed has an influence on students' openness personality?

Openness relates to brain network functioning may provide greater insight into the neuroscience of creativity [11]. Openness is a personality trait reflecting absorption in sensory experience, preference for novelty, and creativity, and is thus considered a driving force of human evolution trait [12]. Openness/Intellect is an empirically derived dimension of personality that reflects individual differences in the ability and tendency to seek, detect, comprehend, utilize, and appreciate complex patterns of information, both sensory and abstract [13]. Openness is conceptualized by subset scales that measure aspects of fantasy, aesthetics, feelings, actions, ideas, and values [14]. Openness is a measure of depth, breadth and variability in a person's imagination and urge for experiences [15]. The trait of openness reflects appreciation for art, emotion, adventure, unusual ideas, curiosity, and variety of experience [16]. From the explanations above, by using ice and snow enrichment book, there's probably an effect on students' openness personality.

So, according to the descriptions which have been explained, the purpose of this research is to find the effect of ice and snow enrichment book which has been developed to students' openness personality.

II. METHOD

The purpose of this study is to obtain a description of how much contribution of ice and snow enrichment book which have been developed to students' openness personality. The subjects of this study are 90 students of 7th grade of Yadika 8 Junior High School. Students' openness personality is measured using the Big Five Personality Inventory (BFI) personality test tool.

The BFI instrument used has 44 items containing short phrases or sentences. From this BFI instrument, the openness personality is measured only by 10 items (number 5, 10, 15, 20, 25, 30, 35, 40, 41, 44) Those items are divided by two, the favourable one and the unfavourable one. The items of favourable items (item no 5, 10, 15, 20, 25, 30, 40, and 44) using a Likert scale consisting of five scales: "Strongly Disagree" (1), "Disagree" (2), "Neutral" (3), "Agree" (4), or "Strongly Agree" (5). Meanwhile the items of unfavourable item (item no 35 and 41) using a Likert scale consisting of five scales: "Strongly Disagree" (5), "Disagree" (4), "Neutral" (3), "Agree" (2), or "Strongly Agree" (1). Scores will be added according to their respective factors. The higher the score on one of the personality dimensions indicates that the personality dimension is dominant in the individual and the low score in one of the personality dimensions shows that the personality dimension is not dominant in the individual.

The data will be processed later will be tested assumptions first. The assumption test consists of normality test, homogeneity test, and linearity test. In data processing, to know how big the influence of independent variable (implementation of ice and snow enrichment book) to dependent variable (students' openness personality), data processing will be executed by doing linear regression test. All of the test will be processed by statistical analysis using SPSS for Windows program.

III. RESULT

A. Normality Test

The normality test is performed to test whether the spread of research variables has spread normally or not. The test is using Shapiro-Wilk test. The result of normality test shows in table 1.

TABLE I. THE NORMALITY TEST

| Variable | <i>p</i> | Description |
|------------------------------|----------|-------------|
| Ice and Snow Enrichment Book | 0.102 | Normal |
| Openness | 0.351 | Normal |

All variables have *p*-value more than 0.05, which is mean that all variables are normal.

B. Homogeneity Test

The homogeneity test is performed to test quality or state as a uniform structure or composition from the data has been obtained. From the data which have been obtained, the result show that *p*-value is 0.273. That value is more than 0.05 which is mean the data have a uniform quality.

C. Linearity Test

Linearity test aims to determine whether two variables have a linear relationship or not significantly. The result of linearity test is shown in table 2.

TABLE II. THE LINEARITY TEST

| Independent Variable | Dependent Variable | <i>p</i> | Description |
|------------------------------|--------------------|----------|-------------|
| Ice and Snow Enrichment Book | Openness | 0.810 | Linear |

The variables have *p*-value more than 0.05, which is mean that the implementation of ice and snow enrichment book are linear to students' openness personality.

D. Linear Regression Test

The simple linear regression test is performed to test linear relationship between one independent variable (*X*) with the dependent variable (*Y*). This test is done to whether the direction of the relationship between independent variables (implementation of ice and snow enrichment book) to dependent variable (students' openness personality) whether positive or negative and to predict the value of the dependent variable if the value of independent variables increased or decreased. Data which will be used are usually scaled interval or ratio. Simple linear regression formula as follows:

$$Y = a + bX$$

With *Y* is dependent variable (predicted value), *X* is independent variable, *a* is constant (value *Y* if *X*=0), *b* is regression coefficient (value increase or decrease). The result of simple linear regression test for Ice and Snow Enrichment Book as an independent variable to students' openness personality as dependent variable is shown in table 3.

TABLE III. THE LINEAR REGRESSION TEST

| R | R Square | Adjusted R Square | Sid Error of the Estimate | F | <i>p</i> |
|----------|-----------------|--------------------------|----------------------------------|----------|-----------------|
| 0.258 | 0.067 | 0.056 | 3.30821 | 6.277 | 0.014 |

Based on table 3 obtained value of *F* = 6.2777 and *p*-value = 0.014 < 0.05. Because *p*-value is more than 0.05, it can be said that there is an influence of using ice and snow enrichment book on students' openness personality. The coefficient of determination (R Square) obtained is 0.067, which is mean that using ice and snow enrichment book effect on students' openness personality is 6.7%. The rest of 93.3% influenced by other factors outside of this research. In other words, the great variability of students' openness personality that can be explained by using ice and snow enrichment book is 6.7%, while 93.1% students' openness personality variability can be explained by other factors outside of this research. Then the result of simple linear regression test for ice and snow enrichment book as independent variable and students' openness personality as dependent variable is shown in table 4.

TABLE IV. THE LINEAR REGRESSION TEST FOR STUDENTS' OPENNESS PERSONALITY AS DEPENDENT VARIABLE

| Independent Variable | <i>a</i> | <i>b</i> | <i>T</i> | <i>p</i> |
|------------------------------|----------|----------|----------|----------|
| Ice and Snow Enrichment Book | 29.761 | 0.138 | 2.505 | 0.014 |

Based on table 4, an equation which express the relationship between usage of enrichment book and students' openness is:

$$Y = 29.761 + 0.138X$$

Y variable is students' openness personality, while X variable is usage of enrichment book. It means that if students not using ice and snow enrichment book variable, the value of students' openness personality is 29.761. Then, the value 0.138 indicates that each addition of 1 score by using ice and snow enrichment book, students' openness personality value increased by 1.725.

IV. DISCUSSION

This research aims to know the effect of implementation of ice and snow enrichment book to students' openness personality. With quasi-experiment method, this research will get data about implementation of ice and snow enrichment book and data about students' openness personality from sample of 7th grade of Yadika 8 Junior High School. When the data have been gathered, the data will be processed later will be tested assumptions first. The assumption test consists of normality test, homogeneity test, and linearity test. Then to know how big influence of independent variable to dependent variable, data processing will be executed by doing linear regression test.

Normality test showed that independent variable has *p*-value 0.102 and students' openness personality have *p*-value 0.351. It means that all data are normal. Then the homogeneity test shows the *p*-value is 0.273, which mean that data are homogeneous. Then in linearity test, the variables have *p*-value more than 0.05, which is mean that the implementation of ice and snow enrichment book are linear to students' openness personality.

Data have pass normality, homogeneity, and linearity test, therefore a linear regression test will be executed. The linear regression test show that the influence by using ice and snow enrichment book to students' openness personality is 6.7 percent. The rest of 93.3 percent are other variables that are not examined in this research. Ice and snow enrichment book are found to have a significant influence on students' openness personality.

Ice and snow enrichment book are found to have a significant influence on students' openness personality. In this study, the enrichment book show that students' openness personality will be affected by this variable. Without this variable, the value of students' openness personality is 29.761. Then, the value 0.138 indicates that each addition of 1 score of using ice and snow enrichment book, students' openness personality value increased by 0.138.

This is in line with what has been stated by Syifa Fauziah and Andriani in their journal which states that in addition to containing material that can enrich students' knowledge and insights, enrichment books can also help in shaping the character or personality of students [5] [9]. Openness of

personality is one of the personalities that in this study has proven that the use of enrichment books has an influence on students' openness personality.

V. CONCLUSION

The ice and snow enrichment book on students' openness personality of 7th grade students of Yadika 8 Junior High School. The coefficient of determination (R Square) obtained is 0.067, which is mean that the ice and snow enrichment book effect on the students' openness personality is 6.7%. The rest of 93.3% influenced by other factors outside of this research.

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