

PROBLEM BASED LEARNING MODELS AND STUDENTS INITIAL ABILITIES TOWARD CREATIVE THINKING ABILITIES IN HISTORICAL LESSONS

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ABSTRACT

Results of the study showed k Capacity of creative thinking history courses students that learned with the model problem based learning is higher than at that learned. There is interaction between the model problem based learning with capacity of creative thinking abilities history courses. High initial capabilities, the ability to think creative eye history lesson students that learned with the model of Problem-Based Learning is higher than the Instant Learning with lower initial ability, creative thinking abilities history courses students that learned with the model of Problem-Based Learning is lower than in the Learning Direct . These findings indicate that the problem- based learning model is more suitable for teaching history subjects a concept of relations and functions to students with high initial abilities and direct learning is more suitable for teaching history subjects a concept of relations and functions to students with initial abilities. low.

KEYWORDS: Problem Based Learning , Direct Learning Model , Creative Thinking

INTRODUCTION

The model of learning has an important role to establish the ability of students in the learning process in the know that the essence of the model of learning is the first instrument is the transformation of values and knowledge there are students . This transformation process certainly requires media that is used as a foundation so that these values and knowledge can be meaningful for students with a form of creative thinking in themselves. It been confirmed by Johnson Elanie (2002: 182) , that in incidence of higher is a form of reflection of thinking critical and creative thinking. It is intended that the ability of creative allows to study the problem in a systematic, organized way to face the challenges, formulate innovative questions, da n designing multiple solutions original. Therefore, the right model to improve students' creative thinking is by applying the problem-based learning model . As stated by Martinis Yamin (2011: 146), Problem Based learning is an innovative learning model that provides active learning conditions for students in real-world conditions. Model is based on the theory of constructivism and theories learned Jerome S. Bruner. Ideal model it can give birth to students who are creative, innovative and of course also have good analytical sharpness as to conduct studies on various issues in terms of the disciplines mastered.

Problems in the intent in the model PBL is a real-life problem or problems that by teachers , this is for me excitatory students learn problem based on the knowledge and experience they already have before so of prior knowledge will be formed new knowledge and experiences. So that the initial knowledge in the PBL model is very influential. Currently the PBL learning model has been applied in various subjects including history subjects a. Model PBL in the context of the subjects of history courses a is the same thing anyway weeks to encourage creative thinking and creative thinking history courses .

Indicated by Hulukati (2005: 1) that the ability to think history courses come into one's vision embodiment of a high-level thinking is indispensable s ISWA. This is related to the student's need to solve the problems of the history subject itself and at the same time solve the problems faced in everyday life. Therefore, the ability to think in history subjects, especially regarding doing math which is encapsulated in problem-solving abilities, needs special attention in the learning process of history subjects carried out by teachers in the classroom and outside the classroom.

THEORY STUDY

Johnson (2002: 14) suggests that creative thinking is a habit that is practiced by paying attention to intuition, animating the imagination, revealing new possibilities, opening amazing viewpoints, and generating unexpected ideas. This opinion is emphasized by Pomalato (2005: 18), creative ability is an ability that refers to one's efforts in being creative, finding ideas, and finding solutions to problems it faces that involve thinking

processes. Both opinions have looked at the ability of creative thinking in everyone is a process that must be trained with the views expressed by Sabandar (2008: 8) that " creative thinking think skills that originated from to what is identified.

This opinion is meant that the thought process can occur suddenly when faced with a problem. There the idea of solving problems without training, but the response process will occur spontaneously and naturally. From the above descriptions, creative thinking can be synthesized , namely the ability to think logically and divergent by paying attention to the rules of deductive reasoning in generating new ideas or ideas in solving problems. Occur only in specific areas, such as art, literature, or science, but is also found in many areas of life including history courses a. The discussion of creativity in the subject of history is more emphasized on the process, namely the process of creative thinking. Therefore, creativity in history subjects is more accurately termed creative thinking in history subjects. However, the term creativity in the subjects of history a in view of having the same meaning as creative thinking subjects of history, so the terms of both used interchangeably, Pehkonen (1997: 10).

According to Pomalato (2005: 11), the ability to think creatively in history subjects is the ability of students to include fluency, flexibility, sensitivity, and elaboration. The same opinion was expressed by Tall (1991: 46) in his definition, creative thinking subject of history is the ability to solve problems or developmental thinking on structures by observing the rules of deductive reasoning, and the relationship of the concept generated to integrate the principal important in history. From several definitions put forward by experts, the researchers synthesize creative thinking in history subjects, namely the ability to think logically and divergent by paying attention to the rules of deductive reasoning in order to generate new ideas or ideas in solving problems in history subjects a. In this study, to measure the ability to think creatively subjects of history of students, researchers use aspects presented by Guilford (natural Herdian, 2010: 25) , namely: the problem of sensitivity , fluency, flexibility, originality, elaboration .

Uno (2005: 161) argues that " initial ability is the basis for learning the next knowledge to master new knowledge required knowledge that has been previously obtained". This opinion is similarly expressed by Yamin (2009: 61) who views that "initial ability is a behavior that students have acquired before they acquire certain new terminal behaviors". From the description that has been put forward by experts can be synthesized that prior knowledge is the understanding and mastery of concepts as basic knowledge that has been owned previously by s ISWA before s ISWA entry on subsequent learning materials. The indicators used by researchers to measure students' abilities.

RESEARCH METHODS

The research was conducted in SMAN 3 Gorontalo Doctrine 2018 -2019 from the date of August 10, 2019 until the date of 14 November 2019. The research was conducted in the first semester of the Year 2018 -2019. The study was conducted on a group which is not at random by class, therefore the type of research is a Quasi Experiment involving several variables.

The data in this study consisted of : (1) the data capabilities of creative thinking subjects of history , 2) and the data capabilities students . In order to obtain these data, instruments are needed in accordance with the objectives to be achieved. The instrument used in this study is a form of objective test to measure the ability to start and test the written description (Essay) to measure the ability to think creatively history courses . As for the requirements of an instrument before use it must meet the requirements of validity and reliability.

The research data were analyzed using descriptive and inferential analysis. Descriptive analysis is used to data results of research through distribution tables grouped data and then calculated the average (mean), the mean (median), the data often appears (mode) and standard deviation (deviation of data on the average) and visualized in a histogram. An inferential analysis is used to test the research hypothesis. The statistical test used was two-way ANOVA (ANOVA 2 X 2) to test the first and second hypotheses. If there is an interaction effect between the model Problem Based Learning (PBL) and the initial ability of students to creative thinking abilities history courses then followed by- Tuckey to test the hypothesis to three and to four. Testing with 2-line ANOVA r requires data to be normally distributed and homogeneous.

RESEARCH RESULTS

Summary of ANAVA Calculation Results Data on Students' Mathematical Creative Thinking Ability Test Results.

Source of Variance	Jk	dk	Rk	F _{count}	F _{table} ($\alpha = 0.05$)
Between learning models (A)	395.2667	1	395,267	4.45	4.02
Inter initial capability (B)	992.2667	1	992,267	11.18	4.02
Between learning models and initial abilities (AB)	1622.4000	1	1622,400	18.27	4.02
In (D)	4972,0000	56	88,786	-	-
Total (T)	7981.9333	59	3098,719	-	-

Information:

JK = Sum of Squares

dk = Degree of Freedom

RJK = Average Sum of Squares

*) = Significant ($F_{count} = 4.45 > F_{table} = 4.02$ at $\alpha = 0.05$)

***) = Significant ($F_{count} = 18.27 > F_{table} = 4.02$ at $\alpha = 0.05$)

First Hypothesis Testing

From the results of calculations using the F test, it is obtained that $F_{count} = 4.45$ is greater than $F_{table} = 4.02$ at the significance level $\alpha = 0.05$ with the degree of freedom (dk) numerator = 1 and dk denominator = 56 Thus the alternative hypothesis which states "the ability to think creatively in history subjects of students who are taught with a problem based learning model is higher than direct learning" is accepted.

Second Hypothesis Testing

From the results of calculations using the F test, it is obtained that $F_{count} = 18.27$ is greater than $F_{table} = 4.02$ at the significance level $\alpha = 0.05$ with the degree of freedom (dk) numerator = 1 and dk denominator = 56 Thus, the alternative hypothesis which states that "there is an interaction between the problem based learning (PBL) model and the students' initial ability to think creatively in history subjects " is accepted significantly. Because based on Anava's calculations, it is found that there is an interaction between the learning model and the initial ability to think creatively in history subjects, then it is continued with further test calculations with the Tuckey test .

Summary of Tukey Test Calculation Results ($\alpha = 0.05$)

No.	Group	Q _h	Q _{t(0.05)}	Conclusion
1	A1B1 with A2B1	12.77	4.08	Significant
2	A1B2 with A2B2	4.33	4.08	Significant

From the results of the Tuckey test calculations above, it can be concluded that the results of testing the third and fourth research hypotheses are as follows.

Third Hypothesis Testing

From the Tukey Test Result Summary table, it is obtained that the value of $Q_{count} = Q_{(A1B1 \times A2B1)}$ is 12.77. The Q_{table} value at the significance level $\alpha = 0.05$ is 4, 08 . Because the $Q_{arithmetic} > Q_{table}$ then the hypothesis that " s ISWA with high initial capabilities, the ability to think creatively history courses students that learned with the model of Problem-Based Learning (PBL) is higher than in the Learning langsung " on the receipt.

Fourth Hypothesis Testing

From the Table Summary of Tukey's Test Results , it is obtained that the value of $Q_{count} = Q_{(A2B2 \times A1B2)}$ is 4.33 The value of Q_{table} at the significance level $\alpha = 0.05$ is 4.08 . Because $Q_{count} > Q_{table}$, the

hypothesis which states " Students with low initial abilities, the ability to think creatively in history subjects of students who are taught using the Problem-Based Learning (PBL) model is lower than Direct Learning " is accepted.

CONCLUSION

Based on the results of hypothesis testing and discussion as described, the researchers concluded that: Creative thinking abilities history courses students' model problem Based Learning is higher than in the Learning Directly on the subject matter Relationships and Function. There is an influence of the interaction between the learning model and the students 'initial ability to think creatively in students' history subjects on the subject matter of relations and functions. Students with high initial capabilities, the ability to think creatively history courses students model problem Based Learning is higher than in the Learning Directly on the subject matter Relationships and Function. Students with lower initial ability, creative thinking abilities history courses students with models problem Based Learning is lower than the jump on the subject matter Relationships and Function.

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