

IMPROVING STUDENTS' CREATIVE THINKING ABILITY THROUGH PjBL BASED ON VIDEO ANIMATION OF WESTERN VOYAGES TO THE NUSANTARA IN THE SUBJECT OF INDONESIAN HISTORY DURING THE AGE OF WESTERN INFLUENCE

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ABSTRAK

Abstract: *Creative thinking skills for students are needed in facing changes and challenges in the dynamic era of globalization. This study aims to determine how the effectiveness of using PjBL based on animated videos of western Voyages routes to the nusantara in improving students' creative thinking skills in Indonesian history courses during the era of western influence. The research method used is Pre-Experimental Designs, with the form of designs used, namely One-Group Pretest-Posttest Design. Based on the results of the study, it can be seen that the use of PjBL based on animated videos of western voyages routes to the nusantara is proven to be effective in improving students' creative thinking skills in Indonesian history courses during the era of western influence. This is based on the results of the paired sample t-test obtained Sig. (2-tailed) of 0.000 < 0.05. This shows that there is a significant difference between the value of students' creative thinking skills before and after using PjBL based on animated videos of western Voyages routes to the nusantara.*

Abstrak: Kemampuan berpikir kreatif bagi mahasiswa sangat dibutuhkan dalam menghadapi perubahan dan tantangan di era globalisasi yang dinamis. Penelitian ini bertujuan untuk mengetahui bagaimana efektivitas penggunaan PjBL berbasis video animasi rute pelayaran bangsa barat ke nusantara dalam meningkatkan kemampuan berpikir kreatif mahasiswa pada matakuliah sejarah indonesia zaman pengaruh barat. Metode penelitian yang digunakan adalah *Pre-Experimental Designs*, dengan bentuk *designs* yang digunakan yaitu *One-Group Pretest-Posttest Design*. Berdasarkan hasil penelitian dapat diketahui bahwa penggunaan PjBL berbasis video animasi rute pelayaran bangsa barat ke nusantara terbukti efektif dalam meningkatkan kemampuan berpikir kreatif mahasiswa pada matakuliah sejarah Indonesia zaman pengaruh barat. Hal ini didasarkan atas hasil uji *paired sample t-test* diperoleh nilai Sig. (2-tailed) sebesar 0,000 < 0,05. Hal ini menunjukkan adanya perbedaan yang nyata antara nilai kemampuan berpikir kreatif mahasiswa sebelum dan sesudah menggunakan PjBL berbasis video animasi rute pelayaran bangsa barat ke nusantara.

A. INTRODUCTION

Appropriate utilization of technology in learning will allow learning to be more varied and interesting. This condition allows for increased student engagement during the learning process which helps develop one of the 21st century skills, namely creative thinking. Creative thinking is a high-level thinking ability which allows students to convey their ideas to solve a problem and produce something new (Anditiasari, Pujiastuti, & Susilo, 2021). In addition, creative thinking skills also help students in dealing with the learning process and

real-life problems (Patmawati, Puspitasari, Mutmainah, & Prayitno, 2019).

However, in learning history on campus, several problems are often encountered, such as classroom learning that has not been innovative (Seprina, Rukmana, & Meihan, 2024), thus making lectures not optimal. In addition, classic problems are often encountered regarding history learning, namely this lesson is considered only memorizing related to past events (Mujiyati, & Sumiyatun, 2016), which has an impact on monotonous and uninteresting learning (Sayono, 2015). The focus of history learning is often only on mastering historical

facts, which will certainly result in a learning process that becomes less interesting and does not provide opportunities for students to think creatively.

In learning history, especially in the course of Indonesian History during the Age of Western Influence, conventional approaches tend not to provide space for students to develop their creative thinking skills. Creative thinking is a skill that a person has to produce something good from the concepts and ideas they have to produce something that can be used (Kristin, 2016). Creative thinking is defined as a student's response to solving challenges and problems using the right way (Fardah, 2012). So that the ability to think creatively must be owned by students in the learning process. With the ability to think creatively, a student will have many choices in solving a problem.

The observation results show several problems, namely: 1) when asked to create media for group presentations, students tend to use PowerPoint which is simple and less interesting; 2) during group discussions, many students did not dare to ask questions or express their opinions, and only read questions taken from the internet; 3) groups that had the opportunity to answer questions generally had not mastered the material in depth and only relied on answers from the textbook.

Therefore, a solution to the problem is needed. The use of a learning model that allows students to be actively involved in lectures, collaborate with other students and allow them to solve a problem is the solution. The use of a project-based learning model in lectures will help develop students' creative thinking skills through the projects given. The PjBL model is a learning model that can improve a person's higher-level thinking skills (Ananda, 2019). Project Based Learning is a model or learning strategy that requires students to learn by working on a real-world project or task that requires the application of knowledge and skills taught in class. This model was chosen because this model helps students get involved in solving the complex problems they face (Azzahra, Arsih, & Alberida, 2023). Through the results of research conducted by Nastiti, et al., (2023) stated that PjBL is proven to have a positive and significant influence on creative thinking skills.

Through the project given in this PjBL model, it will help students become more active and at the

same time develop their creative thinking skills. Project-based learning will help students directly collaborate, find information independently, and produce products according to their understanding of the material (Krajcik & Shin, 2014). In this study, the project chosen was an animated video of the Western voyage route to the nusantara. Through this project, it is expected that students will increase their learning experience and bring out their creativity in producing interesting animated videos.

Animated video is a moving video/image show accompanied by audio or sound as a complement (Irawan, et al., 2021). With video the material will be visualized and help convey dynamic material (Agustien, Umamah, & Sumarno, 2018). This animated video is the right media to convey complex historical material. In addition, animated video is a form of learning media innovation that is associated with technology and the times (Sari, Purnomo, & Meihan, 2024). Through animated videos, the material taught will become simpler and help students understand the material better with interesting visuals (Mayer, 2021). Through this project, students can freely express their ideas and creativity in explaining various materials about the voyage of western nations to the nusantara, starting from the background, characters, Voyages routes, and policies made.

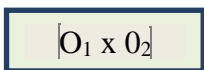
Relevant research and references in conducting this research include research conducted by Seprina, R., Rukmana, L., & Meihan with the research title increasing student creativity through animated travel map-based history learning (Seprina, Rukmana, & Meihan, 2024). The study explains that student creativity can be increased through animated travel maps. Then there is research conducted by Fatmawati, B. with the title project-based learning to improve students' creative thinking skills (Fatmawati, 2011). From her research, it can be seen that there was an increase in students' creative thinking skills after using project-based learning. Furthermore, there is research conducted by Hasanah, U. H., Santi, D. E., & Muhid, A, with the research title video projects as a learning medium to improve student creativity (Hasanah, Santi, & Muhid, 2022). This study shows that video projects have been proven to hone students' abilities to think creatively.

The main difference between this study and previous studies lies in the type of project given to students, namely in making interesting and creative animated videos. Through this research, students are not only asked to master the material, but are also encouraged to develop technological skills through exploration of various video editing applications that support their creativity and innovation. This approach gives students the freedom to choose applications and animation styles that suit their ideas, so that they do not only focus on the final result but also the learning process that involves creative thinking, collaboration, and problem-solving skills. Thus, this study emphasizes the integration of history learning with technological literacy as part of preparing students to face the challenges of the 21st century.

Based on the discussion on the background, this study aims to determine how the effectiveness of using PjBL based on animated videos of western Voyages routes to the nusantara in improving students' creative thinking skills in Indonesian history courses during the era of western influence.

B. RESEARCH METHOD

In this study, the Pre-Experimental Designs method will be used, with the form of designs used, namely the One-Group Pretest-Posttest Design. In this design, a pretest will be given before treatment and give a posttest after treatment. Thus the results of the treatment can be obtained more accurately, because it can compare with the situation before treatment (Sugiyono, 2017). The paradigm of this design can be seen in the following figure (Sugiyono, 2017):



Description:

O_1 is the pretest score before treatment

X is treatment

O_2 is the posttest value after treatment

This research was conducted at the History Education Study Program, Faculty of Teacher Training and Education, Jambi University. The research subjects that the researchers determined were students of the History Education Study Program in the 3rd semester of class R003 who contracted the Indonesian History of the Age of Western Influence course.

The data collection techniques used are observation techniques and questionnaire distribution. In this observation technique is done by directly observing the object or phenomenon under study. Where the lecturer will make observations in the lecture process. The observation technique is a way of collecting data by involving direct observation of participants and the context involved in the research phenomenon (Jailani, 2023).

Furthermore, data collection was carried out by distributing creative thinking questionnaires. The questionnaire is arranged based on creative thinking indicators consisting of: fluency, flexibility, originality, evaluation, and elaboration (Sitepu, 2019).

The data analysis technique uses several statistical tests, namely the data normality test, data homogeneity test, and paired sample t-test. The normality test is useful for knowing and assessing whether the distribution of data is normal or not. The homogeneity test is a test that must be carried out before carrying out the effectiveness test, this test has the aim of knowing and obtaining homogeneous / equal data (Usmadi, 2020). Furthermore, the paired sample t-test test is used to determine the effectiveness of using PjBL based on animated videos of western Voyages routes to the nusantara in improving students' creative thinking skills in Indonesian history courses during the era of western influence.

As a basis for research and directing the process of data collection and analysis to obtain object conclusions, a research hypothesis is needed, the hypothesis used is as follows:

H_0 = There is no significant increase in students' creative thinking ability after using PjBL based on animated video after using PjBL based on animated video

H_1 = There is a significant increase in students' creative thinking ability after using animated video-based PjBL after using PjBL based on animated video

C. RESULT AND DISCUSSION

The subject of Indonesian History during the Age of Western Influence is one of the subjects that plays an important role in the study of Indonesian history. The material discussed in it is related to the

entry of westerners into the nusantara. The route of Western voyages to the nusantara is one of the most significant historical themes, because it marks the beginning of the interaction between the Western world and the nusantara which led to the era of colonialism. An in-depth understanding of these Voyages routes is not only important from a historical perspective, but also to encourage students to think critically about the social, economic and cultural impacts of the arrival of Westerners in the nusantara.

This research was conducted at the History Education Study Program, Faculty of Teacher Training and Education, Jambi University. The research subjects that the researchers determined were students of the History Education Study Program in the 3rd semester of class R003 who contracted the course Indonesian History during the Age of Western Influence. The research process was carried out in 3 stages, namely conducting a pre-test by distributing a student creative thinking ability questionnaire. The questionnaire amounted to 25 statements derived from indicators of creative thinking. This pre-test was conducted to obtain information on the initial ability of students' creative thinking. Indicators of creative thinking ability include: Fluency thinking, flexible thinking (flexibility), originality, evaluation, and elaboration (Sitepu, 2019).

Furthermore, the second stage is the implementation of PjBL Based on Animated Video of Western Voyages to the Nusantara in the Indonesian History Course during the Age of Western Influence. At this stage, of course, it is done by applying the steps of the project-based learning model. The syntax of this learning model is: 1) Start with the Essential Question; 2) Design a Plan for the Project; 3) Create a Schedule; 4) Monitor the students and the progress of the project; 5) Assess the Outcome; and 6) Evaluate the Experience (Lucas, 2005).

The last stage is to conduct a post-test to determine the creative thinking skills of students after applying PjBL based on animated videos of Western voyages to the nusantara in the Indonesian History Course during the Age of Western Influence. The number of questionnaires is still the same as the pre-test, which is 25 statements using a Likert scale of 1-5. The results of the pre-test and post-test of

students' creative thinking skills can be seen in the following table:

Table 1. Results of Pre-test and Post-test of Students' Creative Thinking Ability

No	Average	
	Pre-test	Post-test
1	75,78	114,11

Based on the data above, it is known that the number of samples for the pre-test amounted to 27 students. With the lowest score for creative thinking ability is 66 and the highest score is 84. The total value of the entire pre-test is 2046. The average (mean) pre-test score is 75.78 which shows that in general students have a level of creative thinking that is still not optimal. Then the standard deviation is 4.182 which indicates that the distribution of pre-test scores between students is relatively low, which means that the values owned tend to be close to each other.

Furthermore, for the post-test, the number of samples is still the same as the pre-test which is 27 students. In this post-test, the lowest score obtained by students related to creative thinking skills is 104 while the highest score obtained is 123. The total score is 3081 with an average score of 114.11, this shows a significant increase in students' creative thinking skills after being given treatment using the animated video-based pjbl model. Then for the standard deviation which slightly increased from the pre-test value of 4.909, indicating a slightly higher variation from the value before treatment.

In general, the results obtained show a significant increase in the ability of students to think creatively before and after using the animation video-based pjbl model. The average score increased from 75.78 to 114.11, which means the difference reached 38.33. The standard deviation also showed a slight increase in the post-test, indicating that although there was an increase in students' creative thinking skills, the variation was slightly greater.

After the data is described, several statistical tests will be carried out to prove the effectiveness of using PjBL based on animated videos of western Voyages routes to the nusantara in improving students' creative thinking skills in Indonesian history courses during the era of western influence. Some of the tests used are data normality test, data homogeneity test, and paired sample t-test. The first

test is the data normality test, the data obtained is as follows:

Table 2. Data Normality Test

Data	Sig. Shapiro-Wilk
Pre-test	.845
Post-test	.896

Based on the results of the data normality test using SPSS, it is known that the significance value for creative thinking pretest data is 0.845 and for the posttest is 0.896. From this test it can be concluded that the value of creative thinking for pretest and posttest is normally distributed because the Sig value > 0.05. The next step is to test the homogeneity of the data, here are the results of the data homogeneity test:

Table 3. Data Homogeneity Test

Levene Statistic	df1	df2	Sig.
.673	1	52	.416

Based on the results of the data homogeneity test using spss, it can be seen that the significance is $0.416 > 0.05$. So it can be concluded that the data is homogeneous. This means that there is no significant difference in terms of variation / distribution of data between groups. This result is important because it fulfills the requirements in conducting the next test, namely the paired sample t-test. With the homogeneous data obtained, of course, we can make a conclusion that the difference between the pre-test and post-test values can be more valid for interpretation as a result of the treatment given. So the conclusion is that because this data is homogeneous, statistical analysis to measure differences in creative thinking skills before and after treatment can be carried out. The next test is the effectiveness test using the paired sample t-test, as for the test results are:

Table 4. Paired Sample T-Test

<i>Paired Samples test</i>		
	df	Sig. (2-tailed)
Kreativitas 1-Kreatifitas 2	26	.000

From the results of the paired sample t-test above, the sig. (2-tailed) of $0.000 < 0.05$, this shows that there is a significant difference between the pre-test and post-test scores related to students' creative thinking skills. In other words, H_0 which states that there is no improvement is rejected and H_1 which states that there is a significant increase in students' creative thinking skills after using PjBL based on animated video is accepted. So it can be concluded

that the use of PjBL based on animated videos of western Voyages routes to the nusantara has proven effective in improving students' creative thinking skills in Indonesian history courses during the era of western influence.

This finding is also supported by various previous research results, for example the research of Sari et al, (2021) states that there is a significant effect of applying a project-based learning model on improving students' creative thinking skills. Luzyawaty, (2016) in her research said that there was an increase in creative thinking skills through the project-based learning model. The results of research by Nugroho et al. (2017) showed an increase in the percentage of students' creative thinking skills after applying this PjBL model. The results of Hartono & Asiyah's research (2019) show that from the results of qualitative analysis the Project-based Learning (PjBL) learning model is able to increase student creativity.

D. CONCLUSIONS AND SUGGESTIONS

Based on the results of the discussion, it can be concluded that the use of PjBL based on animated videos of western Voyages routes to the nusantara is proven to be effective in improving students' creative thinking skills in Indonesian history courses during the era of western influence. This conclusion is based on the results of the paired sample t-test results above obtained sig value. (2-tailed) of $0.000 < 0.05$, this shows that there is a real difference between the value of students' creative thinking abilities before and after using PjBL based on animated videos of western Voyages routes to the nusantara. In other words, H_0 which states that there is no increase is rejected and H_1 which states that there is a significant increase in students' creative thinking skills after using PjBL based on animated video is accepted.

Suggestions for further research are that this research can be used as a reference for conducting further research on the long-term effects of the animated video-based PjBL method in the field of history education and other scientific disciplines.

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