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The Effect Of The History Learning Video-Based Project-Based Learning Model In Increasing Student Learning Motivation In High School

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Abstract

The purpose of this study is to assess how high school students' motivation to learn can be increased by using the Project Based Learning (PjBL) learning paradigm, which is based on historical learning films. A quasi-experimental quantitative method is employed in the research process. Through student knowledge assessments, interviews, and observational methods, data was gathered. Using SPSS 25 software, t-and N-Gain tests were used to quantitatively analyze the data. Following the implementation of the learning model, the t-test yielded a significance value (2-tailed) of 0.000, which was less than 0.05, according to the data, showing a significant difference in the students' post-test scores. In addition, the N-Gain analysis showed an increase from the low category (0.22) in the pretest to the medium category (0.61) in the posttest, indicating the effectiveness of this learning model in increasing students' learning motivation. The study's conclusion is that the PjBL learning model, which is based on historical learning videos, significantly affects students' motivation to learn. This finding may be used as a guide to create future learning strategies that are even more successful.

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INTRODUCTION

With the advancements in communication and technology, education in the period of the fourth industrial revolution faces both new opportunities and obstacles. Everyday life now revolves around technology, even in the educational sector. Teachers can more quickly communicate

information and subject matter to students with the rapid usage of technology (Altun & Ahmad, 2021; DeCoito & Richardson, 2018). This improves learning process efficiency while also enabling the production of competent graduates who are prepared to face the global marketplace (Okolie, Igwe, Nwosu, Eneje, & Mlanga, 2020; Ornellas, Falkner, & Edman Stålbrandt, 2019). Nowadays, education is necessary to create people with the 21st century skills of creativity, critical thinking, and innovation in addition to academic knowledge (Thornhill-Miller et al., 2023; Wrahatnolo & Munoto, 2018).

The establishment of a productive and interesting learning environment is one of the key components of education. Students who learn in a monotonous or repetitive manner frequently become disinterested and lose motivation to learn (Yasmin, 2022). In order to make the teaching and learning process more dynamic and to encourage student participation at every level of the learning process, educators must be able to propose innovations in the techniques of instruction (Munna & Kalam, 2021). One potential innovation in education might be the implementation of more interactive and project-based learning methods, which facilitate experiential learning for students (Almulla, 2020).

However, in reality, many schools still face various obstacles in creating a conducive learning environment. One example is one of the State High Schools in Tembilahan District, Riau Province which has 27 study groups (Rombel) and uses two curriculums, namely the Independent Curriculum for class X and the 2013 Curriculum for grades XI and XII. The main obstacle faced is the lack of supporting facilities and infrastructure, such as limited learning books and projectors. In addition, the school policy that prohibits students from bringing gadgets without teacher instruction also limits the use of technology in learning, especially in building two where facilities are minimal. In addition, history learning is often carried out by the lecture method supported by the Student Worksheet (LKS). This method, while effective in some ways, is often considered monotonous by students. The lack of variety in teaching methods and limited access to more interactive learning media are one of the causes of the decline in students' interest and motivation in learning in history subjects. As a result, students are less active in the learning process and only become passive listeners during the lesson.

Considering this issue, creative solutions are required to raise the standard of history instruction in schools. Using the Project-Based Learning (PjBL) learning model, which is predicated on learning videos, is one way to address this. The learning model known as Project-Based Learning (PjBL) places emphasis on project-based learning, where students work together to solve real-world problems or generate products through intricate and demanding tasks (Norawati & Puspitasari, 2022; Rahmania, 2021; Sukacke et al., 2022). PjBL involves students applying their theoretical knowledge to real-world scenarios in addition to their academic studies (Rohm, Stefl, & Ward, 2021; Sanchez-Muñoz, Carrió, Rodríguez, Pérez, & Moyano, 2022). It aids in the development of critical thinking abilities, creativity, and teamwork—all of which are vital in everyday life (Ananda, Rahmawati, & Khairi, 2023; Kurniahtunnisa & Ester Caroline Wowor, 2022; Safarati, Zuhra, & Liani, 2024).

This model not only incorporates technology in the teaching and learning process but also provides a more enjoyable and challenging learning experience for students (Purwaningsih et al., 2020; Shpeizer, 2019). In PjBL, students are invited to be directly involved in creating projects in the form of learning videos related to historical materials, which forces them to think critically,

collaborate, and solve problems (Asep Dudin Abdul Latip & Asep Supriatna, 2023). The use of video in learning has many advantages. Videos allow students to see and hear information simultaneously, which helps them better understand the concepts being taught (Kamelia, 2019; Taspolat, Kaya, Sapanca, & Beheshti, 2018). In addition, the videos can also be repeated according to the student's needs, so they can learn at a pace that suits their abilities (Palaigeorgiou & Papadopoulou, 2019). Through videos, learning becomes more interactive and interesting, which can ultimately increase students' motivation to learn (Ou, Joyner, & Goel, 2019).

In the context of history learning, video-based PjBL learning offers a different approach from traditional methods. Students not only listen to lectures from teachers but also actively create and edit videos related to historical materials (Fyfield, Henderson, Heinrich, & Redmond, 2019; Suryani & Argawati, 2023). This process requires students to understand the material in depth, collaborate with classmates, and use their creativity in presenting historical information in an engaging and informative way.

The video-based PjBL learning model has been the subject of several prior studies. For example, Priyanti (2023) research found that using the Youtube video-based PjBL learning model can enhance students' learning outcomes and engagement in the learning process. Rahayu & Prayitno (2020) added that students' enthusiasm in learning and comprehending topics is increased by the video-based PBL technique. Hayati et., al (2022) the application of the video-based PBL Model in the classroom creates a new learning environment that is more engaging for students by allowing them to control their media experience in a meaningful way, thereby increasing their engagement with the material and arousing their interest in learning. Through the PBL model, problem-solving skills can be used as a teaching tool to foster a stimulating classroom environment that encourages students to actively participate, think critically, and come up with solutions to problems. The primary distinction between this study and earlier research is its emphasis on the use of the video-based PjBL model in high school history classes, with the goal of determining how much PjBL can boost students' motivation to learn.

How does the video-based Project Based Learning learning paradigm affect students' motivation to learn historical subjects? is the problem statement formulated for this study. The purpose of this study is to evaluate how well this model works to motivate students to learn. It is anticipated that this research will give instructors fresh perspectives on how to create more creative and successful teaching methods.

METHODS

The research for this study is conducted on a single group without the use of a comparison group, using a quantitative method with a quasi-experimental approach. The experimental investigation on a single randomly selected group is done using a one group pre-test post-test design in this study. The group's condition is not clarified and a stability test is not performed prior to the group receiving treatment. A pretest is administered to the group prior to treatment in the one group pre-test post-test research design, which allows for the determination of the student's beginning state. Following the completion of the pre-test, the results will be analyzed in accordance with the researcher's strategy, which involves applying a PjBL-based learning model based on history education films. Following treatment, students will take a post-test administered by the researcher

to see whether or not the treatment has an impact on their motivation to learn. The accompanying figure shows the pre-test and post-test designs for one group.

Table 1. One Group Pre-Test Post-Test Design

Pre-test	Treatment	Post-test
T1	X	T2

T1 : Pre-test

X : Treatment in the form of the application of a PjBL-based learning model based on history learning videos

T2 : Post-test

Table 2. Steps To Apply The History Learning Video-Based Pjbl Learning Model

Syntax	Activity
start with the essential question	Teachers begin learning by asking key questions that spark students' curiosity. For example, "How did the G30S/PKI events affect socio-political life in Indonesia?"
design a plan for the project	Teachers and students jointly design a project plan that involves making a history learning video. In this stage, they discuss the topics to be discussed, the division of tasks, the resources needed, and the techniques for making videos.
create a schedule	Teachers and students create a schedule that regulates the implementation time of each stage of the project, including research, script writing, shooting, and video editing.
Progress of the Project	Students begin to work according to the plan that has been made. They conduct research, write scripts, gather visual materials, and record videos. Teachers act as facilitators, providing feedback and guidance throughout the process.
asses the outcome	After the video is complete, students display the results of their project in front of the class. Teachers and other students assess the content, creativity, and effectiveness of videos as a medium for learning history.
evaluate the experience	Teachers hold reflection sessions where students are asked to share their experiences during the project. This discussion includes what they have learned, the challenges they faced, and how this project has affected their motivation to learn.

36 grade XII students from one of the Tembilahan District's high schools served as the study's sample, and they were chosen through the use of the purposive random selection technique. In this study, student learning outcome exams, interviews, and observation were the methods used to collect data. Both descriptive and inferential statistical analysis were employed in the data analysis for this investigation. Based on t-test results, descriptive analysis was utilized to ascertain how student learning motivation differed in PjBL-based learning based on historical learning videos. The Normality Gain (N-gain) formula is used to calculate the amount of growth before and after learning. The difference between the maximum gain score and the actual gain score is the adjusted

gain score. The hypothesis was tested by analyzing data on normalized gain scores. The formula for gain.

Normalized gain as follows:

$$N - gain = \frac{Skor\ pretest - skor\ posttest}{skor\ ideal - skor\ pretest}$$

The normalized gain score criteria are as follows.

Gain Score	Interpretation
$g > 0.7$	Tall
$0.3 < g \leq 0.7$	Keep
$g \leq 0.3$	Low

RESULT

1. Normality Test

The purpose of the normality test is to determine whether or not the data population has a normal distribution. The analysis method for hypothesis testing is determined using this normalcy test. In this study, the one sample Kolmogorov-Smirnov test with a sig level of 0.05 was used to determine the results of the pre- and post-tests of the research sample before the normalcy test was conducted. The pre- and post-test normalcy tests on the research sample yielded the following computation findings.

Table 3. Normality Test

	Df	Sig. (2-tailed)
Pretest	36	.125
Posttest	36	.168

The value of sig appears in the table of one sample's Kolmogorov-Smirnov normality test findings. Pre test: a sig and 0.125. Post-test: 0.168. This demonstrates that sig's value. > 0.05 for the pretest or $0.9125 > 0.05$ plus a sign. In order to determine if the results of the normality test from the pre test and post test of the study sample are normally distributed, the post test > 0.05 or $0.168 > 0.05$.

2. Homogeneity Test

To determine whether or not several variations within a population are identical, homogeneity is employed. As a test condition, it is possible to declare that the variations of two or more groups are identical if the value of sig. > 0.05 . And the other way around. Following the acquisition of pre- and post-test data from the research sample, the homogeneity test was conducted.

The pre-test and post-test homogeneity tests on the research sample were calculated, and the findings are as follows.

Table 4. Homogeneity Test

Levene Statistic	df1	DF2	Sig.
.103	1	36	.689

The value of sig can be ascertained using the one-way anova homogeneity test output findings. 0.689. It may be inferred from the computation results that there is a difference between the pre- and post-test student history learning outcomes (sig. > 0.05).

3. Test T

The t-test is used to determine whether the hypothesis is accepted or rejected; the sig value provides the rationale for performing this statistical test. A substantial difference exists between the two, as indicated by the 2-tailed value of less than 0.05, and vice versa. The T-Test test in this study was conducted with SPSS 25 utilizing a paired t-test.

Table V. T-Test

t	Sig.
2,046	.000

The value of sig. (2-tailed) of $0.000 < 0.05$ is known, and this information is used as the basis for decision-making in the paired t-test. Based on the results of the Independent Sample T-test test post-test value in the Equal variances assumed section, it can be concluded that the history video-based PjBL learning model significantly influences students' learning motivation.

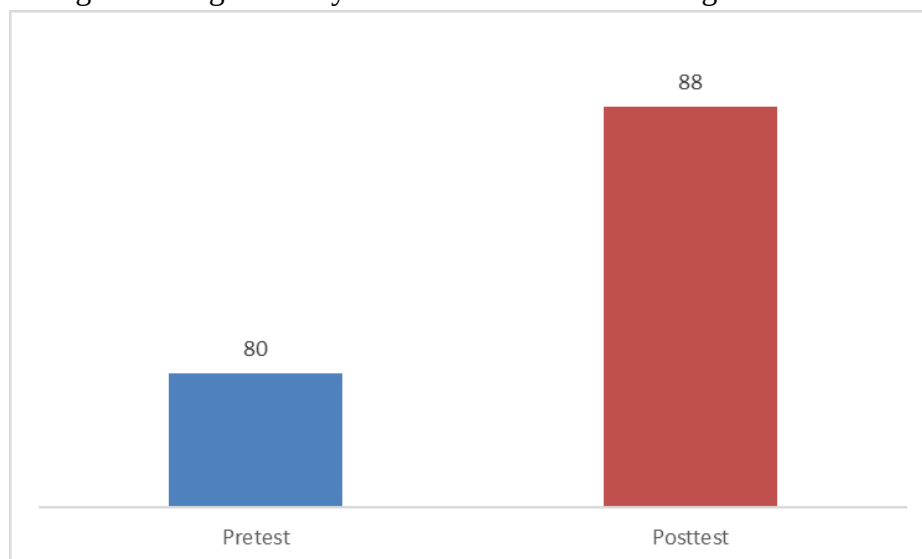


Fig 1. Student Learning Outcomes Before and After Being Given Treatment

Figure 2, which demonstrates that there is a difference in the average results of scores acquired by students before and after the application of the history video-based PjBL learning model, further supports the t-test results. The interview results also demonstrated that students found the Project Based Learning (PjBL) learning model, which is based on instructional videos, to be a more engaging and demanding approach than the frequently boring lecture format. Because they are directly involved in the creation of the short film, which requires role-playing and a thorough comprehension of the subject matter, students feel more actively immersed in the learning process. Participating in video production increases student engagement and interest in learning by

making learning more dynamic and engaging, even though not all students are participating in the editing process.

4. N-Gain Test

The purpose of the normalized gain, also known as the N-gain score, is to assess a model's or treatment's efficacy. Use SPSS 25 to get the gain score. The N-Gain test results are listed below.

Table 6. N-Gain Test

	Mean	SD	N-Gain	Criterion
Pretest	80	3.345	0.61	Keep
Posttest	88	3.758	0.22	Low

Table 6 indicates that students' test scores before receiving treatment were in the poor category, with a score of 0.22. The test scores of the students following their treatment with a PjBL learning model based on historical learning films, with a medium category score of 0.61. Thus, it can be said that raising students' enthusiasm to learn is a rather successful outcome of using the PjBL learning paradigm, which is based on historical learning videos.

DISCUSSION

The adoption of the Project Based Learning (PjBL) learning model based on history learning videos has a substantial impact on raising student learning motivation, according to the results of the t-test and N-Gain test. The students' post-test scores following treatment with sig. (2-tailed) differed significantly, according to the t-test results, by $0.000 < 0.05$. Furthermore, the N-Gain test demonstrated a rise from the pretest's low category (0.22) to the posttest's medium category (0.61), demonstrating the efficacy of the PjBL learning model based on historical videos for history education. Because they are more actively involved in the learning process through the creation of short films, students also find this method to be more engaging and difficult than lecture-based instruction. The present study's findings are consistent with those of Priyanti's (2023) research, which suggests that the PjBL learning model based on videos on YouTube can enhance student engagement and learning outcomes. Students' motivation in learning and conceptual understanding are effectively increased by the video-assisted PjBL paradigm (Rahayu & Prayitno, 2020). By granting students more significant influence over their media experiences, the video-based PBL model's use in the classroom fosters a more engaging learning environment and, ultimately, raises students' engagement and enthusiasm in learning (Hayati et al., 2022). The PjBL model can also be used to foster critical thinking and the generation of solutions to problems, as well as to help students solve problems and improve their problem-solving skills in a stimulating learning environment.

The goal of project-based learning (PJBL), an approach to teaching science, is to pique students' curiosity by having them investigate issues and subjects they find intriguing and significant (Nayak, Satpathy, & Jain, 2024; Suhermanto, Safnil, & Arono, 2021). Children are involved in comprehending phenomena, reoccurring natural events, or solving problems using the discipline's fundamental ideas (DCI), scientific and engineering methods, and cross-sectoral concepts through activities that explore questions and challenges.

Students learn to create a design and complete a project in order to produce a certain result, which is a characteristic of the project-based learning paradigm (Alfaro, Rivera, & Luna-Urquizo, 2019; Suradika, Dewi, & Nasution, 2023). Students have firsthand experience in learning through project creation activities to produce a specific product through the use of the project-based learning paradigm (Almulla, 2020). Students using the project-based learning approach must use all of their problem-solving skills in order to finish an assignment. Students' potential will be developed via the availability of design and project-making activities (Retnowati, Istiana, & Nadiroh, 2020). According to Miller (2021), the Project Based Learning model is a learning approach that centers learning around students, with teachers serving only as facilitators and motivators. According to Aldabbus (2018) the steps of the Project Based Learning learning model are as follows: 1) Opening the lesson with a challenging question. 2) Planning the project. 3) Prepare an activity schedule. 4) Keeping an eye on the road. 5) Assessment of the products produced. 6) Evaluation.

The Project Based Learning (PjBL) learning model has a number of advantages that make it an effective method in the context of education. One of its strengths is its ability to develop students' motivation to learn, which is reflected in their increasing interest and enthusiasm for the material being taught. In addition, PjBL is also very effective in improving students' ability to solve problems, because they are challenged to find solutions to real problems faced during the project. The ability to work together is also one of PjBL's advantages, as students often have to work in groups, which in turn improves their communication and collaboration skills. PjBL also helps students develop skills in finding and managing various sources of knowledge, as the projects they work on often require in-depth research from various sources.

However, despite having many advantages, PjBL also has a number of disadvantages that need to be noted. One of the main challenges is the difficulty in conditioning the classroom, especially when students are involved in projects that demand active interaction and discussion. This often causes the class to become more noisy, so it requires the teacher's skill in good classroom management to ensure that the atmosphere remains conducive to learning. In addition, not all students are actively involved in the project, as there are students who tend to be passive and participate less in group activities. The process of gathering information is also challenging, especially for students who are not familiar with independent research.

In addition, the implementation of projects that often require time outside of face-to-face classes can pose obstacles, especially when the project schedule clashes with students' personal activities. There are also students who are less interested in project-based learning, which can affect their participation and learning outcomes. Therefore, while PjBL has great potential to improve the quality of learning, it is important for teachers to consider these challenges and find ways to minimize their negative impact so that all students can benefit from this learning model.

CONCLUSIONS

The study's findings demonstrate that using the Project Based Learning (PjBL) learning model, which is based on historical learning films, greatly boosts students' willingness to learn. The students' post-test scores following treatment with sig. (2-tailed) differed significantly, according to the t-test results, by $0.000 < 0.05$. Furthermore, the N-Gain test demonstrated a rise from the pretest's low category (0.22) to the posttest's medium category (0.61), demonstrating the learning model's efficacy. The limitations of this research lie in several aspects that need to be considered for

future improvement. First, this study was only conducted in one high school, so the results may not be generalized to other schools with different contexts. In addition, the limited duration of the study can affect the in-depth understanding of the long-term effects of the use of the history video-based Project Based Learning learning model on students' learning motivation. Another limitation is the lack of control variables that may affect learning motivation, such as students' socio-economic conditions or individual learning styles.

For further research, it is recommended to expand the scope of the sample by involving several schools from various regions to obtain more representative results. Research should also be conducted over a longer period of time to evaluate the long-term impact of this learning model. In addition, it is important to consider additional variables that can affect learning motivation, as well as conduct a more in-depth analysis of individual differences in response to this video-based learning model. Researchers can also explore combinations of other learning methods that can increase learning motivation more effectively.

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