



Efforts to Improve Student Learning Outcomes in Learning Indonesian History Using The Project Based Learning (PjBL) Model With the TPACK Approach in Class XI - 10 of SMA Negeri 14 Medan Academic Year 2024/2025

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ABSTRACT

Offering history subjects to pupils can cultivate their critical, logical, and imaginative thinking skills. However, in actuality, students at SMA Negeri 14 Medan encounter challenges in their history learning endeavours. Researchers conducted a study to enhance student learning outcomes in Indonesian History by focussing on the topic of Early Challenges of Independence during classroom instruction. The research sample included of 36 students from classroom XI-10 at SMA Negeri 14 Medan. The data collection method employed was the administration of a written test in the form of multiple-choice questions, which participants responded using the Wordwall web platform. The data analysis methodology employed in this study involved the utilisation of percentage analysis, namely by comparing the original conditions with the outcomes obtained in each iteration. The research findings indicate that implementing the Project Based Learning (PjBL) instructional model with the Technological Pedagogical Content Knowledge (TPACK) approach in the Indonesian History curriculum, specifically focussing on the topic of Early Challenges of Independence, leads to enhanced student learning outcomes. The conclusion of this study confirms that the action hypothesis has been addressed. Specifically, the implementation of the Project Based Learning (PjBL) instructional model with the Technological Pedagogical Content Knowledge (TPACK) approach has resulted in improved student learning outcomes in the field of Indonesian History. The subject of XI- 10 is being taught in Class XI at SMA Negeri 14 Medan during the academic year 2024/2025.

ARTICLE INFO

Article history:

Received

04 August 2024

Revised

24 August 2024

Accepted

05 September 2024

Keywords

Project Based Learning (PjBL), TPACK Approach, Learning Outcomes.

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INTRODUCTION

Obtaining a high-quality education is only possible through a high-quality learning experience, as the two are intimately correlated. Nevertheless, it is imperative to adopt a range of initiatives in order to achieve the goal of

providing enhanced quality education in Indonesia. These efforts must be sustained indefinitely, for the entirety of human existence. Learning activities are the primary focus of the educational process in the classroom or school environment. The achievement of an educational objective can be evaluated by examining the teaching and learning activities undertaken by pupils in school. The role of the teacher is crucial as they have the authority to establish conducive learning environments that can stimulate the development and advancement of critical thinking skills in pupils.

The primary objective of teaching and learning activities in schools is to enhance students' capacity for chronological thinking, enabling them to analyse past events and develop critical thinking skills. The purpose of chronological thinking is to facilitate students' comprehension of societal changes and the diverse forms of social culture in Indonesia, with the aim of cultivating a strong sense of nationalism and Indonesian identity in the social progress of society.

The primary objective of educational activities conducted in schools is to enhance students' cognitive abilities by fostering their proficiency in employing chronological thinking techniques, while also facilitating their comprehension of historical occurrences. The purpose of chronological thinking is to facilitate students' comprehension of societal changes and the diverse forms of social culture in Indonesia, thereby fostering a sense of nationalism and Indonesian identity in the social development of society. This leads to the teaching and learning process being unpleasant or rigid, resulting in pupils feeling bored throughout their studies or discussions. Teachers must be mindful that the learning process involves more than just the interaction between teachers and students. They are also expected to establish a conducive environment that motivates pupils to comprehend topics. The subject matter covered in the instruction. Teachers can engage students directly and offer opportunities for pupils to actively participate in the learning process.

Student learning results were determined to be fairly satisfactory based on my observations and assessments at SMA Negeri 14 Medan beginning in March 2024. It is necessary to learn, namely by using one of the learning models, in order to solve the issues with the learning outcomes mentioned before. For students to stay engaged and avoid boredom, it is crucial to use a learning model while conducting learning activities (Shoimin, 2017:22).

A digital-based type of education is created via the integration of TPACK, which stands for technology, materials, and pedagogy. That "TPACK is a creative solution developed in learning" is what Misrah claims. "Critical thinking skills are one of the abilities needed to face future challenges," says Tinio (2003). In order for students to improve their reasoning, problem-solving,

and creative capacities, it is important to choose an appropriate learning model. Two such models are the student-centered PJBL approach and the TPACK method. Students demonstrate their communication skills, critical thinking talents, and desire to learn in an engaging learning environment as they participate in group debates and give presentations on historical topics. The use of this approach is expected to address the issues and concerns related to subpar learning results for class XI-10 students. Because SMA Negeri 14 Medan is a platform for executing practical design programs, and because we want our students to progress and achieve the objectives of their history education there.

Through the explanation above, researchers are interested in conducting classroom action research with the title Efforts to Improve Student Learning Outcomes in Indonesian History Learning Using the TPACK Project Based Learning (PjBL) Approach Model in Class XI- 10.

RESEARCH METHODE

Efforts to optimise and enhance student learning outcomes are the primary focus of classroom action research (PTK). The project-based learning paradigm, often known as work based learning or PjBL, is the only one used by researchers (Project Based Learning). Researchers employed the TPACK framework and learning strategy, which integrates technology, pedagogy, and content assistance to tailor the learning process to each individual student's requirements. The 435th class's study site was selected at the Medan Polonia District of Medan City in the North Sumatra Province. During the 2024–2025 school year. There are a total of 36 pupils in class XI- 10 , with 14 being male and 22 being female. All of the history class participated in the research. The researcher then used Kemmis and Taggart's PTK learning model, which is a spiral that begins with cycle I and continues with cycle II, with each cycle consisting of reflection, planning, action, and observation (Arikunto, 2002:83). After then, the next phases of the cycle are reflection, observation, and updated planning.

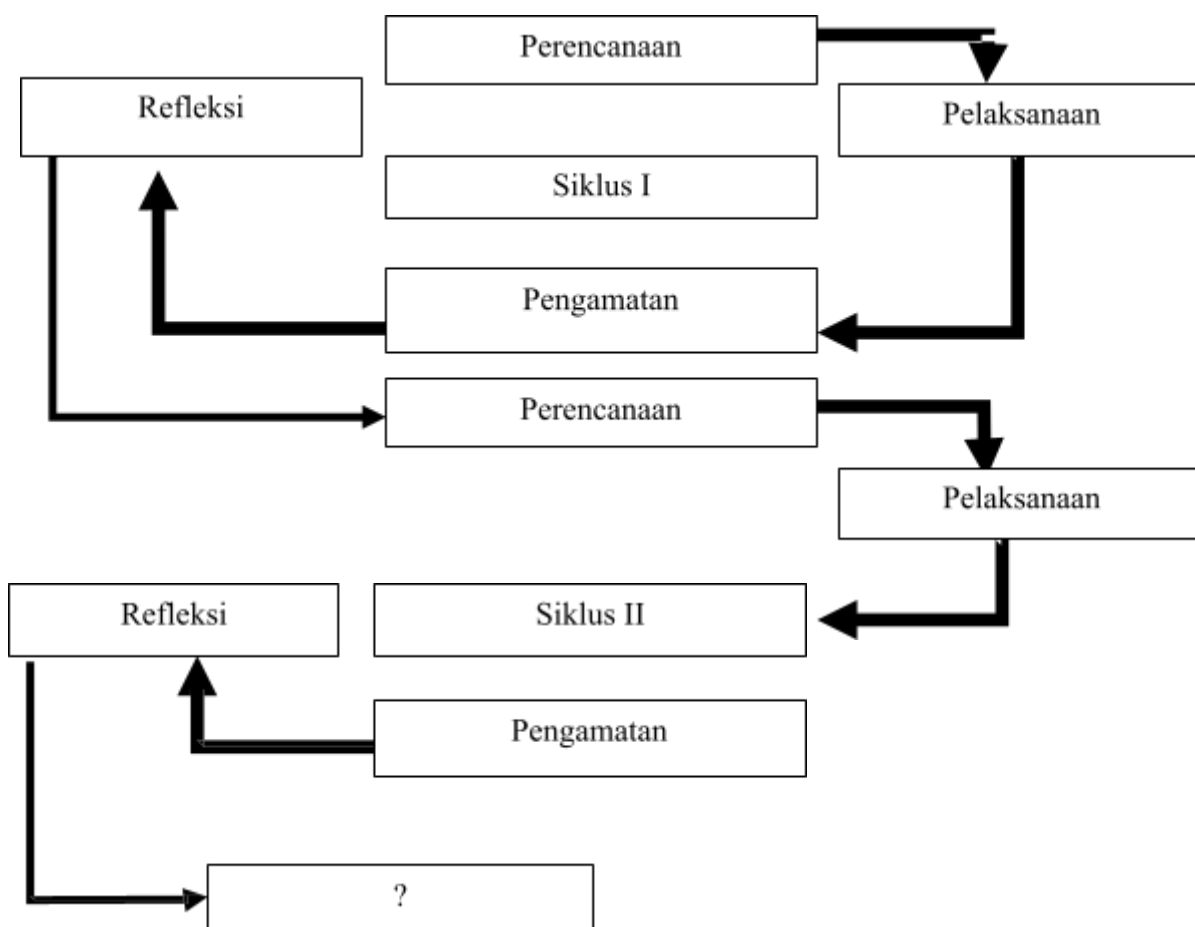


Figure 1.
Classroom Action Research Cycle Diagram

First, there is planning, when the researcher lays out the steps to be performed. Second, there is implementation, when the design's contents are put into practice, namely via the use of a class action plan.

The third step, "observing," is when the observer really does the act of observing. Reflection: Here, the researcher takes stock of the work done. In this phase, we utilise student worksheets and assignments to reflect on the PjBL learning model and identify areas where students may improve their achievements in Indonesian history.

The study was conducted in two phases, with classroom learning activities included in each step. Three forty-minute sessions make up the learning time for each cycle. Researchers in this study relied on observation as a research technique, from the first testing phase all the way up to the final recording of observational data. Each student's action and condition that is pertinent to the subject being investigated is recorded using data gathering procedures. In order

to find out what students have learnt before starting Cycle I, which uses the PjBL model and methodology, a pre-test is administered.

I am TPACK. Before moving on to the next step, the instructor gives the class a quick quiz using multiple-choice questions to gauge their current level of understanding. Evaluations were administered to students at the conclusion of the learning process to gather data on their cognitive learning outcomes after the implementation of the project-based learning model (PjBL) and the TPACK approach. Scientists used both quantitative and qualitative descriptive analysis methods to go through the data. Qualitative data highlights students' actions and outcomes throughout the learning process, from the first stages of brainstorming a project to the final presentations and discussions that wrap up the design phase. as a result of class discussion and group discussions. When presenting quantitative data derived from student learning assessments, the following formula will be used.:

$KB = \frac{T}{Tt}$	$\times 100\%$ <i>Tt (Trianto:2018:241)</i>
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Information:

KB = Learning Completeness

T = Number of marks obtained by students Tt = Number of marks

A written exam, specifically a pre-made collection of questions designed to be administered at the end of each unit of instruction, serves as the vehicle for this method.

Afterwards, non-testing methods are used by keeping detailed class observations and documenting all findings. The last step is documentation, which involves taking digital pictures of students' work to prove what they learnt and data collected from their first grades.

Researchers utilise a variety of instruments to evaluate students' performance, with the primary goal of calculating learning outcome scores that reflect students' level of engagement in class. In addition, researchers in this study relied on qualitative data. The data is assessed after analysis in order to comprehend the outcomes of the study. To build a classroom learning process or stage that is really focused on students, it is vital to pay attention to the following phases of problem-based learning, which are also known as Problem Based:

1. Questions about the theoretical underpinnings and methodological approaches to learning should be your primary focus.

2. Secondly, let students think about and create something from their own ideas; this may be an infographic, a creative video, a podcast, or even just a page. or blogs that modify themselves to accommodate the most common or preferred methods of group instruction. After that, they will seek out information that will allow them to address the challenges they have encountered so far and provide solutions. To help students develop their metacognitive skills, we provide them opportunities to handle the data they collect.

Finally, make sure that students get a chance to share and debate all of the solutions they come up with for fixing problems.

RESULTS AND DISCUSSION

First, we observed and recorded the history learning difficulties of SMA Negeri 14 Medan's class XI- 10, pupils before moving on to Cycle I and Cycle II of the curriculum. Before using the project-based learning (PjBL) paradigm, researchers may get a better understanding of the teaching environment by carefully observing the learning process. Observations show that some students do not pay attention in class and either daydream or fiddle with their phones while the instructor is speaking. Additionally, many students struggle to grasp the concepts covered in class and do not respond appropriately when asked questions. Students have an impact on their own learning outcomes via problem-solving, question-reading, question-asking, and question-correcting. From Cycle I to Cycle II, researchers saw the anticipated increase in learning outcomes when using the Project Based Learning (PjBL) learning model with the TPACK method. Students complete a multiple-choice exam on Web Wordwall at the conclusion of each cycle to gauge their progress. Particularly in history classes, where test questions may gauge how much students have learnt. Here are the effects of comparing the learning outcomes of Indonesian history from pre-action to the end of cycle II with information on the earliest obstacles of independence. From a cognitive standpoint, there is an improvement in learning outcomes, as shown in Table 1 below.

Table 1.

Cognitive Learning Results for Each Cycle

Student Cognitive Outcomes	Pre Cycle	Cycle I	Cycle II
Completed students (score ≥ 75)	11	24	32
Incomplete students (grade ≤ 75)	25	12	4

Completion Percentage	61,33%	73,88%	90%
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Table 1 displays the results of the post-test administered after each learning cycle, which shows that students' scores improved. The following graph shows that, despite the difficulties of gaining independence, student performance in Indonesian history classes improved :

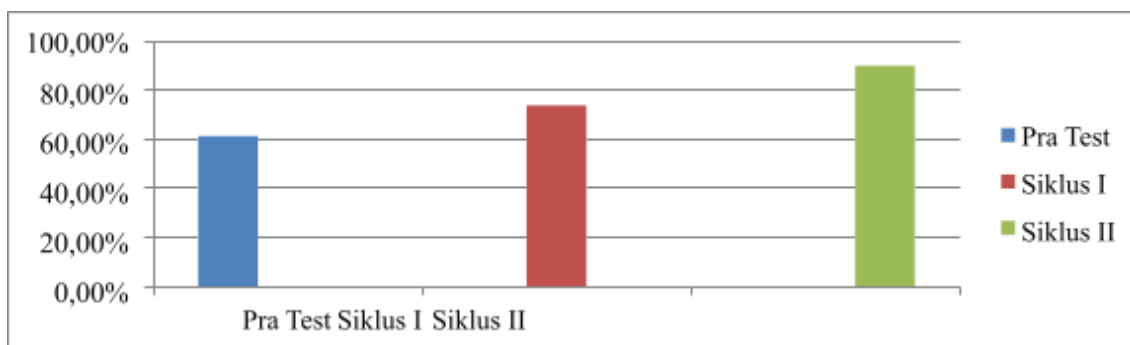


Figure 2.
Diagram of Improvement in Student Learning Outcomes
in Pre-Test Cycle I and Cycle II.

The above graph shows that cognitive learning results improve across pre-cycle, cycle I, and cycle II. The success percentage of student learning outcomes in the previous cycle was 61.33%, which proved this even before action was performed. The learning outcomes success rate climbed to 73.88% and the student learning outcomes success rate increased by 12.55% after the learning-based model project (PjBL) was implemented in Cycle I utilising the TPACK technique. This demonstrates that cognitive learning outcomes improved during cycle I, but that cycle II is required to obtain the targeted results of 75. While in this cycle, learners went through cognitive.

Next, we achieved a 90% success rate in tracking processes by combining project-based model learning (PjBL) with the TPACK technique. Results demonstrate that TPACK, when combined with the project-based learning model (PjBL), enhances students' cognitive learning. The psychomotor component is then assessed. As per Hamzah (2012), this pertains to a component of the knowledge or methods of presentation that students acquire from prior autonomous sources about the subject of Indonesian history. In Table 2, we can see the outcomes of the psychomotor learning.

Table 2.
Psychomotor Learning Results for Each Cycle

Student Psychomotor Results	Cycle I	Cycle II
Completed students (score ≥ 76)	22	33
Incomplete students (grade ≤ 76)	14	3
Completion Percentage	74,6%	92%

According to Table 2, the results of psychomotor learning improved between cycles I and II. The learning results were 74.6% after Cycle I of using the TPACK action method and the project-based learning model (PjBL). It is evident that the target outcome of 76% has not been met so far. cycle I was successful, however cycle II will need more testing. The outcomes of this cycle were achieved via the use of the Project Based Learning (PjBL) paradigm. Students' psychomotor learning outcomes in local and Indonesian history content, centred on the topic of the early dedication to Indonesian independence, achieved a level of 92% when taught utilising the TPACK method and supplemented with many activities.

The second cycle sees a rise in the total as students develop items that cater to their own learning styles. Students may confidently work on the provided items and express their creativity while doing so. Media such as articles, films, creative pieces, and plays. Alternatively, podcasts and other approaches to learning.

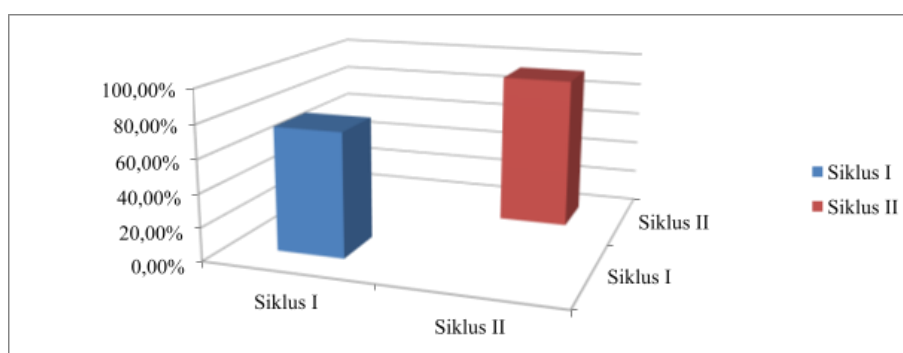


Figure 3.
Comparison diagram of psychomotor learning outcomes for Cycle I and Cycle II

Students' engaged and passionate participation in history learning was seen when the project-based learning model (PjBL) was combined with the TPACK technique, in addition to the aforementioned elements. Lessons may also be seen. Here are some classroom observations made by researchers as they put the TPACK technique and project-based learning paradigm into practice.

Table 3.

Observation Results of Student Activities in Cycle I and Cycle II

Cycle	Score	Presentati on	Criteria
Cycle I	64	76%	Good
Cycle II	76	90%	Very good

Cycle Score Presentation Criteria, Cycle I 64 76% Good, Cycle II 76 90% Very Good. Figure 3 Diagram of Observation Results of Student Activities in Cycle I and Cycle II.

The pupils' learning capacity, which reached 73.88%, reflects these outcomes. A total of 24 pupils achieved scores over 75, while 12 students were unable to do so. Cycle I had an average learning success rate of 73.88. During the first cycle of learning, students were more engaged, their passion for learning grew, and they spoke up about the things they had created – though a few of them were disruptive because they were making too much noise. So, it's safe to say that there are still some problems with the learning implementation process. Accordingly, researchers used student-style-based project-based learning in Cycle II. Students' learning outcomes were enhanced as a result of group efforts to create products that catered to each member's unique learning style and aptitude.

Consistent with Cycle I's findings, Cycle II builds on those gains by introducing the TPACK technique, which enhances media interactivity and gives students agency for their own learning via the usage of products. Activity. The things that students do are really rewarding. The way the pupils pay attention in class is indicative of this. During the process of coming up with creative goods, having group discussions, making materials, establishing group challenges, and presenting group outcomes. The class was quite animated. Students in cycle II were more engaged in their learning compared to those in cycle I, according to the results of the learning activities. Additionally, there was an uptick in learning outcomes in Cycle II, with 32 children (or 90%) successfully completing the Early Independence Challenge content. The test was not finished by four pupils. You can see that there was a 16.12%

improvement in the degree of learning completion in Cycle II compared to Cycle I test results from these numbers.

By using a project-based learning (PjBL) paradigm, which encourages students to think creatively, autonomously construct their own ideas, and show interest in their own learning, the student-centered TPACK method makes learning enjoyable. Technology facilitates learning in the classroom. more entertaining. Technology serves to enliven otherwise dull subjects and inspires learners to retain more information. Students are able to exercise more creativity while learning via the use of technology, which enhances the effectiveness of technology-based learning. By integrating the TPACK framework into Indonesian history curricula using the project-based learning (PjBL) paradigm. Students benefit greatly from the PjBL learning paradigm when they work in small groups on projects, experiments, and innovative ideas.

CONCLUSION

The research, analysis, and debate led to the conclusion that students might benefit from studying Indonesian history during the early struggles of independence by using the Project Based Learning (PjBL) learning model and the TPACK method. Among the students enrolled, 61.38% have finished the preparatory portion of their studies (11 students), while 38.62% have not finished (25 students). Among the students that completed Cycle I, 73.89 percent (24 students) had earned learning credentials, while 26.11 percent were still working towards their goals. At the conclusion of cycle II, on the other hand, 32 out of 90 students had finished the course, while 4 out of 100 students had not yet received their final mark. Using a project-based learning model (PjBL) in conjunction with the TPACK method would enhance student learning results in Indonesian language topics, as is evident from the conclusion above, which answers the behavioural hypothesis of this study. Anthology of Class XI-10, Specialist, SMA Negeri 14 Medan, 2024–2025 School Year.

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