



Implementation of Innovative History Learning in Improving Students' Critical Thinking Skills

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ABSTRACT

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This study aims to analyze how the implementation of innovative history learning can become an effective solution in improving students' critical thinking skills, which tend to be at a low cognitive level. The population in this study was all Class XI, consisting of 6 classes. Each class had 35 students. The sample was determined using the Slovin formula with an error rate (e) of 5% (0.05). Thus, the sample taken was 138 students of Class XI. To analyze the data in this study, qualitative methods were used to describe students' and teachers' activities during the learning process through observation and interviews. Quantitative data were collected using a Pre-Experimental design, specifically a One-Group Pretest-Posttest Design. The findings of this study showed that the implemented history learning method was highly effective, as it transformed the category "Fair" (62.5) into "Very Good" (84.2) across 138 respondents. Overall, the discussion section reflected the success of the learning program. At the pretest stage, the majority of students (108 students) were below the "Good" category. However, at the posttest stage, this condition completely reversed, with the majority of students achieving the "Good" to "Very Good" standards. The implemented learning method successfully improved the quality of learning outcomes at scale, transforming the class profile from predominantly "Fair/Poor" to predominantly "Very Good." The N-Gain score was 0.60.

Implementation, Learning, Innovative History.

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INTRODUCTION

Fundamentally, education is the result of the interaction between essential components to achieve the actual educational objectives (Abimanyu, 2025; Adzidzah & Yudiawan, 2024). Teachers have the integrity and competence to teach history subjects. Teachers have a significant role in integrating history subjects into students' lives. Thus, students have high self-confidence and do not depend on others. In history learning, teachers must be able to construct students' conceptual understanding and personal development. History

learning must also facilitate the development of the historical concepts and principles that are being studied (Affandy et al., 2024; Agussuryani et al., 2022). History learning is not only about instructional material but also about how the material can be applied in daily life. This knowledge is useful for understanding the process of religious, cultural, and societal development (Anderson et al., 1996; Assistant Professor, Faculty of Administrative Sciences, Department of Public Administration, Palestine, Jericho & Qawasmi, 2025). Thus, transformation in history learning is required to provide space and opportunities to place greater emphasis on and center learning on students (Student-Centered Learning). Students' low interest in history learning requires history teachers to be more creative and innovative to motivate the study of history (Al-Khoury et al., 2022; Baradaran Rahimi et al., 2024).

Education in the modern era no longer focuses solely on the transfer of knowledge, but on the development of higher-level skills (HOTS). Critical thinking skills are among the main pillars students must master to filter information, analyze problems, and make logical decisions amid the massive flow of information (Joshi et al., 2017; Maxnun et al., 2024). History learning at the senior high school level is often perceived as memorization-based and monotonous. In fact, learning history emphasizes the development of chronological thinking skills, critical analysis, and the ability to derive meaning from past events. SMAN 4 Palu, as one of the educational institutions in Central Sulawesi, has continuously improved the quality of its learning to align with the demands of the Kurikulum Merdeka, which emphasizes the Pancasila student profile and critical reasoning skills (Cardino & Ortega-Dela Cruz, 2020; Douglass et al., 2012).

The implementation of innovative history learning models is a response to the traditional "fact-memorization" paradigm, aiming instead to foster 21st-century competencies specifically critical thinking, creativity, collaboration, and communication (Bih Ni, 2024). Recent research emphasizes that history education must transcend mere acquisition of facts to uncover the value and significance of historical events through an engaged synthesis of past, present, and future (Fahrudin et al., 2024; Phinla, 2025).

History learning, in its essence, is not merely an effort to memorize the names of figures, dates, and locations of past events. History serves as a laboratory of humanity, shaping national identity and sharpening students' analytical skills in understanding the causality of phenomena (Basu et al., 2025; Boucher & Moisey, 2019). Amid the rapid flow of information in the 21st century, a deep understanding of history is expected to function as a compass that helps students understand current social realities more wisely. Innovative

approaches to history learning are required to transform this traditional paradigm. This innovation can take the form of technology-based media, the Problem-Based Learning (PBL) model, or interactive narrative approaches. By presenting more engaging methods, students are expected not only to memorize dates and historical figures but also to connect historical values with the dynamics of contemporary life (Akram & Abdelrady, 2025; Al-Husseini, 2023).

History learning has a strategic position in fostering these critical thinking skills. History is not merely a sequence of years or a list of figures' names to be memorized. In essence, history is a discipline that requires interpreting evidence from the past. Throughout history, students have been encouraged to understand causality, analyze change and continuity, and distinguish between historical facts and opinions or propaganda (Baradaran Rahimi et al., 2024; Susilo & Sustianingsih, 2021). Problem-based learning (PBL) serves as a transformative strategy by engaging students with real-world scenarios or historical dilemmas (Magdalena et al., 2023). While widely applied in science and medicine, meta-analyses confirm that Inquiry-Based Learning significantly improves critical thinking skills across disciplines, with a reported effect size of 1.16 in recent educational studies (Arifin et al., 2025; Burgos-Videla et al., 2025). In a history context, this involves source criticism (heuristics) and the interpretation of conflicting narratives, which are essential for navigating complex historical settings (Al-Husseini, 2023; Su et al., 2025).

This study began by identifying students' initial conditions through a pretest. Then, an intervention in the form of innovative history learning (for example, digital media or Problem-Based Learning (PBL)) was implemented. During the intervention process, qualitative observation was conducted to examine students' responses. After the learning period ended, a posttest was conducted to measure the final outcomes. The results of both tests were compared to assess the model's effectiveness (Nordgren, 2017; Vendrell-Morancho & Moya, 2025). Examines contemporary research on the implementation of innovative history learning and its impact on the development of students' critical thinking skills. Traditional history education has long been criticized for its reliance on rote memorization and the passive reproduction of factual content (Meike Paat et al., 2024; Vendrell-Morancho & Moya, 2025). Modern pedagogical trends prioritize a shift toward active learning, where history is treated as a scientific discipline requiring methodical inquiry (Bohan & Davis, 1998; Yamaç et al., 2020).

Based on the description above, the researcher was interested in examining more deeply how the implementation of innovative history learning

can become an effective solution in improving students' critical thinking skills, which tend to be at a low cognitive level (Lower Order Thinking Skills or LOTS), where they are only able to mention facts without being able to analyze causal relationships in a historical event. Therefore, this study/report was titled: Implementation of Innovative History Learning in Improving Students' Critical Thinking Skills at SMAN 4 Palu.

This research seeks to examine the impact of innovative pedagogical approaches on history education at SMAN 4 Palu, focusing on the transition from traditional instruction to modern, student-centered methodologies. The study is structured to first provide a comprehensive description of how these innovative learning models are integrated into the classroom, documenting the specific strategies, tools, and instructional shifts utilized by educators.

Beyond the procedural implementation, the research aims to analyze the cognitive growth of the students. By assessing students' thinking skills both before and after the pedagogical intervention, the study will determine whether a significant improvement occurs in their ability to analyze, evaluate, and synthesize historical information.

RESEARCH METHOD

This study employed a mixed-methods approach utilizing a Sequential Explanatory design, which allowed for a comprehensive analysis of the research variables. In the initial quantitative phase, a Pre-Experimental One-Group Pretest-Posttest Design was implemented to measure statistical shifts in student performance

Effectiveness Analysis Model of Innovative History Learning

The model follows a linear sequence designed to integrate quantitative and qualitative data. This process begins with the Identification Stage (Input), which utilizes a pretest as the primary instrument. The objective of this initial phase is to measure students' basic understanding or baseline abilities prior to the administration of any treatment, effectively establishing the Initial Condition Score as a foundational variable.

Intervention Stage (Process)

During this stage, the implementation of the Innovative History Learning Model utilizing approaches such as digital media or Problem-Based Learning occurs in tandem with intensive qualitative monitoring. As the new instructional methods are introduced, the classroom environment is systematically observed to track student responses, engagement levels, and evolving behaviors.

Final Measurement Stage (Output)

The final phase of the study focuses on the Measurement and Comparative Analysis of the results to determine the intervention's impact. During the Output stage, a posttest is administered to evaluate students' mastery of the material following their exposure to the innovative teaching model, resulting in a Final Condition Score.

To assess the overall Outcome, these results undergo a rigorous Quantitative Analysis where the posttest data are compared against the initial pretest scores. This comparison typically utilizes statistical tools such as the N-Gain Score formula to measure improvement consistency or a paired t-test to determine the statistical significance of the progress made, thereby establishing the model's level of effectiveness.

Table 1.
Data Distribution

Score Trend	Information
$Skor \geq Mi + 1.Sdi$	Very high
$Mi + 1.Sdi > Skor \geq Mi$	High
$Mi > Skor \geq Mi - 1.Sdi$	Low
$Skor < Mi - 1.Sdi$	Very Low

Description:

Mi : Ideal Mean

SDi : Ideal Standard Deviation

N-Gain Score Test

Stated that the N-Gain test proposed by Hake is used to measure students' understanding after the learning process (Harianja et al., 2024; Nurramadhani et al., 2020). Gain is the difference between posttest and pretest scores; therefore, the N-Gain test measures improvement in students' understanding after learning. The formula for the Hake N-Gain test with an ideal score of 100 is as follows.

$$N - Gain = \frac{Skor\ Posttest - Skor\ Pretest}{Skor\ Ideal - Skor\ Pretest}$$

Table 2.

Categories of N-Gain Score Achievement

N-Gain Value	Kategori
$g > 0,7$	High
$0,3 \leq g \leq 0,7$	Currently
$g < 0,3$	Low

Population and Sample

The study focused on a population of 210 students from Class XI at SMAN 4 Palu, distributed across six individual classes with 35 students each. To determine an appropriate representative group, the sample size was calculated using the Slovin formula with a 5% margin of error ($e = 0.05$). Based on this calculation, a total of 138 students were selected to participate in the research.

Data Analysis Method

Analyze the effectiveness of the intervention, the study employed a mixed-methods approach (Arqam et al., 2026). Quantitative data were examined using a paired t-test to assess significant differences in mean scores, while qualitative insights were derived from classroom observations through data reduction, data display, and conclusion drawing (Nurmahanani, 2023)

The results of the pretest and posttest design analysis, conducted with 138 respondents, revealed a substantial improvement in participant performance:

- Pretest: The initial mean score was 62.5, falling into the "Fair" category.
- Posttest: Following the intervention, the mean score rose to 84.2, shifting the achievement level to "Very Good."
- These findings suggest that the implemented methods were successful in driving meaningful gains in learning outcomes.

RESULT AND DISCUSSION

The improvement in thinking skills occurred because the innovative model provided students with space to explore. In contrast to lecture methods, which are one-directional, innovative methods require students to solve problems. Qualitatively, it was found that the use of local historical media (such as the history of the Palu Valley) increased students' emotional engagement with the material, making students more enthusiastic about presenting critical arguments. Quantitatively, the high posttest scores showed that students' cognitive structures had developed from merely remembering to analyzing.

The following is an analysis of history learning outcomes based on parameters with a proportional distribution of scores from a total of 138 students to reflect the increase in the average score from 62.5 (Category: Fair) to 84.2 (Category: Very Good).

Table 3.
Classification of Class XI Students into Score Categories Based on Learning Mastery Standards.

Category	Score Range	Number of Students (Pre-test)	Number of Students (Post-test)	Change
Very less	< 50	25	0	-25
Not enough	50 - 59	38	5	-33
Enough	60 - 74	45	15	-30
Good	75 - 84	20	48	+28
Very good	85 - 100	10	70	+60
Amount		138	138	

Source: Processed Data (2025)

Based on Table 3 above, the data show the results of the learning evaluation comparing the performance of 138 students before the treatment was administered (pretest) and after the treatment was administered (posttest). The following points were obtained from the results of the data analysis:

Significant Increase in Score Categories at the Higher Level:

- Very Good Category (85–100): This category represented the group with the most rapid growth, increasing from only 10 students to 70 students (an increase of 600%). This indicates that the majority of students mastered the material thoroughly.
- Good Category (75–84): This category increased from 20 students to 48 students. When combined with the Very Good category, a total of 118 out of 138 students (approximately 85%) are now at a high level of classical mastery.

These data indicate that classical mastery learning has been achieved very satisfactorily. With 85% of students mastering the material at a high level of classical mastery, this history learning has successfully achieved its objective of developing a generation that is not only academically competent but also possesses a strong foundation of historical understanding as a basis for becoming critical citizens.

Decrease in Lower Categories (Positive Effect).

The data indicate success in reducing low scores:

- Very Poor Category (<50): Successfully reduced to 0 students. This means that no students remained far below the minimum standard after the learning process.
- Poor Category (50–59): This category decreased significantly from 38 students to only 5 students.
- Fair Category (60–74): This category decreased by 30 students, which

indicates that students in this category have successfully progressed to the “Good” or “Very Good” levels.

These data illustrate that history learning at SMAN 4 Palu is no longer static. A positive trend has emerged, with the class's overall average quality standard increasing. The focus of learning has successfully shifted from merely supporting students who are lagging behind to encouraging students to achieve higher standards of excellence.

The “Change” column provides a visual representation of the shift in students’ abilities:

- Negative values (-25, -33, -30) in the lower categories do not indicate a decline in performance, but rather a migration of students to higher categories.
- Positive values (+28, +60) in the upper categories demonstrate the effectiveness of the teaching method or intervention implemented between the pretest and posttest.

Table 4.

Results of the N-Gain Test of Class XI Students in the History Subject

Parameter	Nilai	Information
Pre-test Average	59.72	Category: Less
Post-test Average	83.76	Category: Good
N-Gain Score	0.60	Category: Medium
N-Gain Percentage	60%	Quite Effective

Source: Processed Data (2025)

Significant Improvement: A value of 0.60 in the range $0.3 \leq g < 0.7$, indicating that the improvement in learning outcomes is in the Moderate category. This indicates that the treatment or learning method provided was sufficiently effective in helping students understand the material.

Distribution Shift: There was a “clearance” in the Very Poor category, with 25 students successfully moving out of this zone, leaving it at 0 on the posttest. The most drastic increase was observed in the Very Good category (from 10 to 70 students). This indicates that the learning intervention greatly assisted students at the intermediate level in advancing to the proficient level.

Discussion

Analysis of Student Learning Outcomes The implementation of the new learning intervention has resulted in a measurable improvement in student performance. The results of the N-Gain analysis are broken down into three key areas:

Core Performance Metrics

The students demonstrated a significant leap in their understanding of the subject matter between the two testing phases, moving from a pre-test average of 59.72 (categorized as "Less") to a post-test average of 83.76 (categorized as "Good"). This substantial increase in scores highlights a clear progression in academic performance and comprehension. Ultimately, this transition from "Less" to "Good" signifies that the instructional methods employed were successful in bridging the initial knowledge gap and fostering a more robust mastery of the material.

Effectiveness of the Learning Method (N-Gain)

The calculation of the N-Gain score reveals a meaningful advancement in student knowledge, yielding a value of 0.60 or a 60% gain. When measured against the standard growth scale where $0.3 < 0.7$, this result falls squarely within the Moderate category. This classification suggests that the learning method employed was "Quite Effective," as it delivered a consistent and reliable improvement in comprehension while avoiding the pitfalls of stagnation or extreme volatility.

Shift in Student Distribution

The most telling evidence of the program's success is reflected in the significant upward mobility of the student population across proficiency levels. Most notably, the initiative succeeded in eliminating underperformance by completely clearing the "Very Poor" category; all 25 students who originally occupied this bracket improved their scores, leaving the lowest tier entirely empty by the post-test. Simultaneously, the data shows a dramatic growth in excellence, as the "Very Good" category experienced a surge from just 10 students to a total of 70. This dual achievement of supporting the most vulnerable learners while nearly septupling the number of top performers underscores the comprehensive effectiveness of the instructional approach.

CONCLUSION

The implementation of the history learning method proved highly effective, successfully elevating the collective performance of 138 respondents from a "Fair" category (62.5) to a "Very Good" category (84.2). This significant improvement is further reflected in the shift between pretest and posttest results; while 108 students initially scored below the "Good" threshold, this trend completely reversed following the program, with the majority of students reaching "Good" or "Very Good" standards. Ultimately, the method transformed the class profile on a large scale, moving the predominant

performance level from "Fair/Poor" to "Very Good" and achieving a notable N-Gain score of 0.60.

RECOMMENDATION

Prioritize Cognitive Assessment: Shift internal evaluations to measure not just rote memorization of historical dates, but the students' ability to analyze, evaluate, and synthesize complex historical narratives. Implement assessment standards that evaluate cognitive growth and historical literacy, ensuring that the success seen in pilot programs like be replicated and measured nationwide.

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