

# Transforming History Education Through Problem-Based Learning to Strengthen Historical Thinking Skills in Education

Pramodia R

<sup>1</sup> University of Jember, Master of Social Science Education Study Program Jember, East Java, Indonesia  
[pramoedia987@gmail.com](mailto:pramoedia987@gmail.com)

**Abstract:** *This study aims to examine the transformation of history education through the implementation of Problem-Based Learning (PBL) in strengthening critical and reflective historical thinking skills. In the context of 21st-century education, history education no longer focuses solely on memorizing historical facts but also requires students to understand, interpret, and reflect on historical events in a meaningful way. However, history teaching practices remain largely conventional, resulting in suboptimal development of historical thinking skills. Furthermore, contemporary educational demands emphasize the importance of critical thinking, problem-solving skills, and contextual learning. This study employs a Systematic Literature Review (SLR) method by reviewing and analyzing various national and international scholarly articles related to Problem-Based Learning and historical thinking skills. The research stages include the systematic identification, selection, analysis, and synthesis of the literature. The findings indicate that Problem-Based Learning promotes active, reflective, and student-centered learning and is effective in strengthening historical thinking skills in history education.*

**Keywords:** Problem Based Learning, Historical Thinking Skills, Critical Thinking, History Learning

## 1. INTRODUCTION

History education in the 21st century faces the challenge of developing students' thinking skills that focus not only on memorization but also on critical and reflective thinking. Social changes, technological advancements, and the rapid flow of information require students to be able to understand various phenomena in a more in-depth and contextual manner. In this context, historical thinking skills have become an essential competency because they help students understand historical events comprehensively and connect them to daily life. These skills are also relevant in addressing various social issues, such as differing perspectives, the spread of disinformation, and the emergence of social conflicts caused by a lack of historical understanding. Therefore, history education must be directed toward strengthening historical thinking skills as part of 21st-century competencies (Gibson et al., 2020). Thus, historical thinking skills are crucial in shaping students who can think wisely, reflectively, and responsibly in social life.

However, the reality of history education in schools still reveals several issues that require serious attention. History education remains dominated by a conventional approach focused on memorizing facts, historical figures, and chronological events. This situation results in students being poorly trained in analyzing, interpreting, and evaluating historical events in depth. Consequently, history education is often perceived as unengaging and has not effectively fostered students' historical awareness. Research conducted by Claravall and Irey (2021) reveals that the use of historical documents in instruction can help develop students' interpretive and analytical skills more deeply. Furthermore, Lopez-Fernández et al. (2021) emphasize that a teaching approach that places critical thinking at the center of classroom

activities can enhance students' understanding of history. Nevertheless, the implementation of such approaches in history education remains limited and has not yet been widely adopted in educational practice.

One instructional model considered to have great potential for strengthening historical thinking skills is Problem-Based Learning (PBL). This instructional model emphasizes the learning process through contextual problem-solving activities closely related to students' daily lives. In practice, students are encouraged to actively participate in discussions, seek information, analyze problems, and formulate solutions based on their own reasoning and understanding. Findings from a meta-analysis indicate that Problem-Based Learning has a positive impact on the development of students' critical thinking skills (Pu et al., 2021). Furthermore, problem-based learning creates a more active and participatory learning environment, so that students are not merely recipients of information but active participants in the learning process. Therefore, Problem-Based Learning is considered relevant in supporting the transformation of history education into a more contextual and meaningful educational experience.

In addition to fostering the development of critical thinking, Problem-Based Learning is also closely linked to the strengthening of historical thinking skills. Historical thinking skills not only require students to understand historical facts but also to develop the ability to interpret and use historical evidence and to reflect on past events. In this context, a problem-based learning approach can help students understand history more deeply because they are directly involved in the process of analysis and problem-solving. Research on historical awareness and competence indicates that the development of historical thinking requires learning activities based on reflection, analysis of evidence, and contextual understanding of historical events (Seixas, 2017). Therefore,

the integration of Problem-Based Learning and historical thinking skills is considered essential in supporting history learning that is more relevant to the needs of contemporary students.

Although many studies have addressed Problem-Based Learning and historical thinking skills, the existing research landscape still reveals a clear research gap. Some studies primarily focus on the conceptual development of historical thinking skills, while others emphasize the effectiveness of Problem-Based Learning in enhancing critical thinking skills in general. Studies that specifically integrate Problem-Based Learning with the strengthening of historical thinking skills in history education remain limited, particularly in the form of Systematic Literature Reviews. This situation highlights the need for a more in-depth conceptual examination of the relationship between these two variables. Therefore, this study offers a unique perspective by linking Problem-Based Learning and historical thinking skills as part of the transformation of history education through a Systematic Literature Review approach.

Based on these research issues and gaps, this study aims to analyze the role of Problem-Based Learning (PBL) in strengthening historical thinking skills in history education through a Systematic Literature Review approach. The research questions focus on how Problem-Based Learning can support the development of critical and reflective historical thinking skills, as well as its implications for history education in the context of 21st-century education. This study is expected to provide a theoretical contribution to the development of history learning that is more contextual, active, and student-centered. Furthermore, the findings of this study are expected to serve as a reference for educators, prospective academics, and researchers in designing history learning that can shape students to be critical, reflective, and wise in addressing various social issues in daily life.

## 2. RESEARCH METHODS

This study employs a Systematic Literature Review (SLR) approach to comprehensively examine the literature on the transformation of history learning through Problem-Based Learning (PBL) in strengthening historical thinking skills. The SLR method was chosen because it allows researchers to systematically identify, evaluate, and synthesize findings from various previous studies related to Problem-Based Learning, historical thinking skills, critical thinking, and history learning in the context of 21st-century education. According to Barbara Kitchenham (2007), a Systematic Literature Review provides a structured, transparent, and replicable process for reviewing scientific studies. Furthermore, Petticrew and Roberts (2006) emphasize the importance of transparency, consistency, and analytical accuracy in conducting Systematic Literature Reviews in educational and social science research.

The research stages were adapted from the principles proposed by Barbara Kitchenham (2007), which consist of: (1) determining the research objectives and focus regarding

Problem-Based Learning and historical thinking skills; (2) establishing inclusion and exclusion criteria for selecting relevant studies; (3) conducting a literature search in national and international scientific journals; (4) collecting and organizing research data from the selected articles; (5) evaluating the quality and relevance of the reviewed studies; and (6) synthesizing the findings to formulate a conceptual understanding of the role of Problem-Based Learning in strengthening historical thinking skills in history education. Through these stages, this study aims to provide a comprehensive theoretical perspective on transformative, student-centered history learning in contemporary education.

### 2.1 Defining the Research Objectives

To determine the objectives and focus of research related to Problem-Based Learning and historical thinking skills, specifically in examining how Problem-Based Learning contributes to the transformation of history education by strengthening students' historical thinking skills through a critical, reflective, and contextual learning process. This research focuses on identifying the relationship between Problem-Based Learning and the development of students' abilities to interpret historical events, analyze historical evidence, evaluate various perspectives, construct historical arguments, and connect past events with contemporary social issues. Additionally, this study focuses on reviewing previous findings regarding the role of Problem-Based Learning in promoting an active, student-centered, and inquiry-based learning environment that supports the development of critical and reflective historical understanding in 21st-century history education (Gibson et al., 2020; Seixas, 2017; Pu et al., 2021; Claravall & Irey, 2021; Lopez-Fernández et al., 2021). Therefore, the objectives and focus of this study are intended to provide a comprehensive conceptual understanding of the importance of integrating Problem-Based Learning into history education as an effort to strengthen students' historical thinking skills in contemporary education.

In addition, this study aims to examine current issues, research gaps, and conceptual trends related to the implementation of Problem-Based Learning and historical thinking skills in history education. Particular attention is given to the limitations of conventional history teaching practices, which still place greater emphasis on memorization than on analytical and reflective thinking processes. Therefore, this study seeks to synthesize findings from previous national and international research to formulate a broader conceptual understanding of the importance of integrating Problem-Based Learning into history education as an effort to develop students' critical awareness, historical reasoning, and problem-solving skills in the context of contemporary education (Awang et al., 2022; Ridwan et al., 2024; Yunitasari et al., 2025). Thus, this stage is crucial in identifying the relevance, urgency, and theoretical contribution of this research toward the transformation of history learning in the context of 21st-century education.

### 2.2 Determining Inclusion and Exclusion Criteria

The article selection process in this Systematic Literature Review (SLR) was conducted systematically to identify relevant, credible, and high-quality studies related to Problem-Based Learning and historical thinking skills in history education. This study applied inclusion and exclusion criteria to ensure that the selected articles aligned with the research objectives and the conceptual focus of the study. The selection process involved several stages, including identification, screening, eligibility assessment, and final inclusion of studies that met the predefined criteria. Through this procedure, this study aimed to compile a comprehensive body of literature addressing the implementation of Problem-Based Learning, the development of historical thinking skills, and the transformation of history education in the context of 21st-century education.

Criteria	Inclusion Criteria	Exclusion Criteria
Research Topic	An article discussing Problem-Based Learning, historical thinking skills, critical thinking, and history education	Articles not related to history education or historical thinking skills
Level of Education	Research conducted at the elementary, middle, high school, higher education, and pre-service teacher education levels	Research outside the educational context related to history education
Type of Publication	National and international journal articles that have undergone peer review	Non-scholarly publications, opinion pieces, blog posts, and unpublished manuscripts
Year of Publication	Articles published in the past five years and relevant foundational studies	Research that is outdated and no longer relevant to current educational issues
Research Focus	Research focusing on the implementation of Problem-Based Learning and the development of historical thinking skills	Research that discusses general learning models unrelated to PBL or HTS
Language	Articles published in English or Indonesian	Articles published in other languages without an available translation

Research Quality	Articles with a clear methodology and academic credibility	Research that lacks a clear research methodology or has incomplete findings
------------------	--	---

Based on these criteria, the selected literature sources are expected to provide comprehensive and reliable findings regarding the role of Problem-Based Learning in strengthening historical thinking skills in history education at various levels of education.

### 2.3 Data Collection Strategy

The data search process in this Systematic Literature Review (SLR) was conducted systematically to identify relevant, credible, and high-quality scientific articles related to Problem-Based Learning and historical thinking skills in history education. This search strategy aims to identify previous studies that discuss the application of Problem-Based Learning, critical thinking, reflective learning, and the development of historical thinking skills in the context of 21st-century education.

The article selection process consists of several stages. The first stage is the initial identification, in which relevant articles are searched for across various national and international academic databases and scientific publication platforms. The databases used in this study include Scopus, Web of Science, ERIC, Google Scholar, JSTOR, Garuda, ScienceDirect, SpringerLink, Taylor & Francis Online, Directory of Open Access Journals (DOAJ), Oxford Academic, Elsevier, and Scimago Journal Rank (SJR). These databases were selected because they provide leading scientific publications that have undergone a peer-review process in the fields of education, history learning, and social sciences.

The search process utilized several keywords and keyword combinations related to the research topic, such as “Problem-Based Learning,” “Historical Thinking Skills,” “History Education,” “Critical Thinking,” “Reflective Learning,” and “21st-Century Education.” The literature search focused on articles published in English and Indonesian that were relevant to the research objectives. Following the identification phase, the collected articles were screened based on the relevance of the title, abstract, quality of the publication, and research focus. Duplicate and irrelevant articles were removed during the screening process. Subsequently, eligible studies were reviewed in full to ensure their compliance with this study’s inclusion criteria. Through this systematic search strategy, this study aims to obtain comprehensive and reliable literature sources to support the analysis and synthesis of the role of Problem-Based Learning in strengthening historical thinking skills in history education.

### 2.4 Determination of Inclusion and Exclusion Criteria

This study applied inclusion and exclusion criteria to ensure that the selected literature sources were relevant,

credible, and aligned with the study's objectives. Establishing these criteria is essential to maintaining the quality, consistency, and academic validity of the studies reviewed in this Systematic Literature Review (SLR). Through this process, the researcher can identify scholarly articles that specifically address Problem-Based Learning (PBL) and historical thinking skills in the context of history education. The inclusion criteria in this study focus on scientific articles that discuss Problem-Based Learning (PBL), historical thinking skills (HTS), critical thinking, reflective learning, and history learning in the context of 21st-century education.

The selected studies include national and international journal articles relevant to the conceptual framework and research objectives. In addition, the studies reviewed were required to include a clear discussion of the implementation of Problem-Based Learning or the development of historical thinking skills in educational settings.

This study also considers educational levels as part of the inclusion criteria. The reviewed articles cover various educational contexts, including elementary education, middle school, high school, higher education, and pre-service teacher education. The inclusion of various educational levels aims to provide a broader understanding of how Problem-Based Learning and historical thinking skills have been applied and developed in various learning environments. However, most of the selected studies are closely related to history education and social studies education.

This study also considers educational levels as part of the inclusion criteria. The reviewed articles cover various educational contexts, including elementary education, middle school, high school, higher education, and pre-service teacher education. The inclusion of various educational levels aims to provide a broader understanding of how Problem-Based Learning and historical thinking skills have been applied and developed in various learning environments. However, most of the selected studies are closely related to history education and social studies education.

In terms of publication types, only peer-reviewed scientific journal articles were included in this study. The selected articles were obtained from leading national and international databases such as Scopus, ScienceDirect, SpringerLink, JSTOR, ERIC, Google Scholar, and Garuda. These databases were chosen because they provide credible academic publications and high-quality educational research. Therefore, the selected studies are expected to provide reliable findings for the analysis and discussion of this research.

The year of publication was also an important consideration in determining the inclusion criteria. This study prioritizes articles published within the last ten years to ensure the relevance of the reviewed studies to current educational issues and contemporary learning practices. Nevertheless, several foundational and theoretical studies related to historical thinking skills and Problem-Based Learning were

also included because they provide important conceptual perspectives for the research framework.

Exclusion criteria were applied to eliminate studies that were not relevant to the research focus. Articles unrelated to history education, historical thinking skills, or Problem-Based Learning were excluded from the review process. Additionally, non-scholarly publications such as opinion pieces, blogs, magazines, conference abstracts without full papers, and unpublished manuscripts were not included in this study due to a lack of academic credibility and methodological clarity.

Studies with incomplete findings, unclear methodologies, or inadequate discussion of Problem-Based Learning and historical thinking skills were also excluded from the review process. In addition, duplicate articles obtained from various databases were removed to avoid repetition in the data analysis. This exclusion process is important to maintain the consistency and reliability of the literature synthesis conducted in this study.

By applying these inclusion and exclusion criteria, researchers can identify a comprehensive and high-quality body of literature on Problem-Based Learning and historical thinking skills. The selected studies are expected to provide valid theoretical and empirical insights into the transformation of history education through Problem-Based Learning in strengthening students' historical thinking skills within the context of 21st-century education.

### 3. RESULTS AND DISCUSSION

#### 3.1 Overview of the Study

The studies reviewed in this Systematic Literature Review (SLR) generally focus on the application of Problem-Based Learning (PBL), historical thinking skills (HTS), critical thinking, and transformative history learning in the context of 21st-century education. The selected articles consist of national and international journal publications that discuss the development of students' analytical, reflective, and contextual thinking skills through innovative learning approaches. Most studies emphasize the importance of a student-centered learning environment that encourages active participation, inquiry, problem-solving, and evidence-based reasoning in history learning.

Based on the reviewed literature, these studies were conducted at various levels of education, including elementary education, middle school, high school, higher education, and pre-service teacher education. However, most studies primarily focused on the context of middle school education and history learning. Some studies explore the application of Problem-Based Learning in enhancing critical thinking and collaborative learning, while others focus on the development of historical thinking skills through inquiry-based teaching, document analysis, and reflective learning approaches.

From a geographical perspective, the studies reviewed come from various countries and educational systems, indicating that discussions regarding Problem-Based Learning and historical thinking skills have garnered international attention. These studies also employ a variety of research methods, including qualitative approaches, experimental research, meta-analyses, psychometric studies, and design-based research. This diversity of approaches indicates that historical thinking skills and Problem-Based Learning have been examined from various theoretical and practical perspectives.

In addition, findings from previous studies generally indicate that Problem-Based Learning has a positive impact on students' critical thinking, problem-solving skills, and active participation in the learning process. At the same time, historical thinking skills were found to contribute significantly to students' ability to interpret historical evidence, critically analyze historical issues, and develop a reflective understanding of social realities. Therefore, the reviewed studies collectively support the argument that the integration of Problem-Based Learning and historical thinking skills is essential for the transformation of history learning in contemporary education.

### ***3.2 Problems in Conventional History Education***

Although historical thinking skills are crucial, the practice of teaching history in schools still faces various challenges. Learning activities are often dominated by teacher-centered instruction and rote-learning approaches. Students are generally positioned as passive recipients of information, rather than active participants in the learning process. Consequently, history education tends to focus solely on memorizing historical facts without fostering deeper analytical and reflective thinking.

Claravall and Irej (2021) emphasize that students' understanding of history can be enhanced through document-based instruction, which enables students to critically analyze and interpret historical evidence. Similarly, Lopez-Fernández et al. (2021) state that placing critical thinking at the center of history instruction significantly improves students' historical understanding. However, such an approach has not yet been widely implemented in history classrooms, thus limiting opportunities for students to develop historical reasoning skills and reflective thinking.

### ***3.3 The Role of Problem-Based Learning in History Education***

Problem-Based Learning (PBL) is considered an innovative learning model that supports the transformation of history education into a more active, contextual, and student-centered process. In history education, PBL encourages students to learn through the exploration of real-world,

contextual problems related to historical events and social realities. Through this approach, students are not only required to understand historical content but are also encouraged to analyze problems, evaluate information, and formulate evidence-based arguments. Therefore, Problem-Based Learning helps students become active participants in constructing historical understanding.

Several studies reviewed in this research indicate that Problem-Based Learning (PBL) positively contributes to the development of students' critical thinking abilities and collaborative learning skills. Pu et al. (2021) revealed through a meta-analysis that PBL significantly enhances students' critical thinking abilities across various educational contexts. Furthermore, Yunitasari et al. (2025) found that Problem-Based Learning creates a more participatory and meaningful learning experience because students are directly involved in discussions, investigations, and problem-solving activities. In the context of history education, this approach helps students connect historical issues with contemporary social problems, making learning more relevant and reflective.

### ***3.4 Historical Thinking Skills in Contemporary Education***

Historical thinking skills have become an essential competency in contemporary education because they enable students to understand history critically and contextually. Historical thinking is not merely about memorizing historical facts, but also involves interpreting evidence, understanding historical significance, analyzing continuity and change, and evaluating various perspectives related to historical events. These competencies are crucial in helping students develop critical awareness and a reflective understanding of social reality.

Gibson et al. (2020) explain that historical thinking skills are closely linked to the development of critical citizenship and democratic awareness in modern society. Students with strong historical thinking skills are better able to critically analyze information and respond wisely to social issues. Similarly, Seixas (2017) emphasizes that historical thinking requires a reflective learning process involving contextual interpretation and evidence-based reasoning. Therefore, strengthening historical thinking skills is highly relevant to the demands of 21st-century education.

In addition, several of the studies reviewed indicate that the development of historical thinking skills can be supported through inquiry-based learning, document analysis, and reflective discussion activities. Claravall and Irej (2021) found that document-based instruction helps students improve their interpretive and analytical abilities in history learning. Thus, historical thinking skills are considered fundamental competencies for building students' critical and reflective understanding of historical and social phenomena.

### ***3.5 Integration of Problem-Based Learning and Historical Thinking Skills***

The findings of this literature review indicate a strong relationship between Problem-Based Learning and the development of historical thinking skills in history education. Problem-Based Learning provides a learning environment that encourages students to analyze problems, evaluate evidence, discuss various perspectives, and construct historical interpretations critically. These learning processes are closely aligned with the core components of historical thinking skills.

Through Problem-Based Learning, students are encouraged to actively engage in investigative and problem-solving activities related to historical issues. This process allows students to gain a deeper understanding of historical events because they are directly involved in interpreting evidence and constructing arguments based on contextual understanding. As a result, students not only learn historical content but also develop the reflective and analytical thinking skills necessary to understand complex social realities.

In addition, the integration of Problem-Based Learning and historical thinking skills supports student-centered learning, which encourages collaboration, discussion, and independent inquiry. This learning approach helps students become more reflective, critical, and responsible in analyzing historical and contemporary social issues. Therefore, the integration of Problem-Based Learning and historical thinking skills is considered essential for supporting transformative history learning in today's education.

### 3.6 Research Gaps and Their Implications for History Education

Although many studies have addressed Problem-Based Learning (PBL) and historical thinking skills, this review found that most previous research has focused on these topics separately. Some studies primarily examined conceptual frameworks and the development of historical thinking skills, while others focused on the effectiveness of PBL in enhancing critical thinking and learning outcomes. Research that specifically integrates PBL with historical thinking skills in history education remains limited.

Furthermore, much previous research has been conducted using experimental and classroom-based approaches, whereas systematic literature reviews examining the conceptual relationship between PBL and historical thinking skills remain relatively scarce. This situation indicates a research gap regarding the theoretical integration of these two concepts in the context of transformative history learning. Therefore, this study contributes by presenting a broader conceptual synthesis regarding the relationship between Problem-Based Learning and historical thinking skills.

The findings of this study also have important implications for the practice of history education. Teachers are encouraged to adopt more contextual, inquiry-based, and student-centered teaching approaches that support the development of students' critical and reflective thinking skills. Through the integration of Problem-Based Learning and historical thinking skills,

history education can become more meaningful, participatory, and relevant to the educational challenges of the 21st century.

## 4. CONCLUSION

The transformation of history education in the context of 21st-century education requires a teaching approach that fosters students' critical, reflective, and contextual thinking skills. Historical thinking skills have become an important competency because they help students understand historical events more deeply, analyze historical evidence, evaluate various perspectives, and connect past events with current social realities. However, the findings of this study indicate that history teaching practices are still often dominated by conventional, memorization-oriented approaches, resulting in suboptimal development of students' historical thinking skills.

Based on the findings of this systematic literature review, Problem-Based Learning (PBL) has significant potential to support the development of historical thinking skills in history education. Problem-Based Learning promotes an active, student-centered, inquiry-based, and contextual learning process through problem-solving activities related to real-life situations. Through this learning model, students are encouraged to think critically, interpret historical evidence, construct arguments, and reflect on historical issues in a more meaningful way.

This study also found that the integration of Problem-Based Learning (PBL) and historical thinking skills has been relatively limited in previous research, particularly in systematic literature reviews. Therefore, this study makes a theoretical contribution by presenting a conceptual understanding of the relationship between Problem-Based Learning and the strengthening of historical thinking skills in transformative history education. The findings of this study are expected to serve as a reference for educators, researchers, and prospective academics in designing innovative, reflective, and student-centered history learning that aligns with the demands of contemporary education.

## 5. REFERENCES

- [1] Claravall, E. B., & Irej, R. (2021). *Fostering historical thinking: The use of document-based instruction for students with learning differences*. *Journal of Social Studies Education Research*, 12(3), 45–62.
- [2] Lopez-Fernández, C., Tirado-Olivares, S., Mínguez-Pardo, R., & Cozar-Gutiérrez, R. (2021). *Putting critical thinking at the center of history lessons in primary education through error- and historical thinking-based instruction*. *Education Sciences*, 11(8), 1–18.
- [3] Gibson, L., Peck, C. L., Miles, J., & Duquette, C. (2020). *Historical thinking: Trends, critiques, and future directions*. *Journal of Curriculum Studies*, 52(3), 1–15.

- [4] Pu, D., Ni, J., Song, D., Zhang, W., Wang, Y., Wu, L., & Wang, X. (2021). *Effects of problem-based learning instructional intervention on critical thinking in higher education: A meta-analysis*. International Journal of Educational Research, 102, 101752. DOI: <https://doi.org/10.1016/j.ijer.2020.101752>
- [5] Seixas, P. (2017). *Historical consciousness, historical thinking, and curricular implications*. In M. Carretero, S. Berger, & M. Grever (Eds.), *Palgrave handbook of research in historical culture and education* (pp. 59–72). London: Palgrave Macmillan.
- [6] Ridwan, A. N., Kurniawati, & Marta, N. A. (2024). *Historical Thinking Skill in the Merdeka Curriculum*. Universitas Negeri Jakarta.
- [7] Awang, M. M., Ahmad, A. R., Yakub, N. M., & Seman, A. A. (2022). *Historical Thinking Skills among Pre-Service Teachers in Indonesia and Malaysia*. Journal of Education and Learning, 17(2), 120–135.
- [8] Yunitasari, D., Lasmawan, I. W., Arnyana, I. B. P., & Ardana, I. M. (2025). *Innovative Learning: Problem-Based Learning Enhances Character and Learning Outcomes in Elementary Schools*. Educational Process: International Journal, 16, e2025202.
- [9] Yusoff, N., Ahmad, A. R., & Seman, A. A. (2022). *Developing and Validating a Historical Thinking Skills Assessment Instrument: A Psychometric Study Using Classical Test Theory and Item Response Theory*. Frontiers in Education, 7, 867210.
- [10] Van Boxtel, C., & Van Drie, J. (2018). *Fostering Secondary Students' Historical Thinking: A Design Study in Flemish History Education*. Historical Encounters, 5(1), 34–51.
- [11] Schmidt, H. G., Rotgans, J. I., & Yew, E. H. J. (2011). *The role of the "problem" in problem-based learning: PBL tutors' conceptions*. Instructional Science, 39(6), 1–12.
- [12] Gómez-Carrasco, C. J., Monteagudo-Fernández, J., & Moreno-Vera, J. R. (2020). *The effects of a gamified project based on historical thinking on the academic performance of primary school children*. Education Sciences, 10(11), 1–15.
- [13] Sari, D., & Nugroho, A. (2021). *Implementation of Experiential Learning to Enhance Students' Historical Thinking Skills*. Journal of Social Science Education, 6(2), 77–89.
- [14] Seixas, P., & Morton, T. (2013). *The Big Six Historical Thinking Concepts*. Toronto: Nelson Education.
- [15] Rahmawati, F., & Hidayat, T. (2022). *Learning modules: Problem-based learning, blended learning and flipping the classroom*. Journal of Educational Innovation, 8(1), 55–68.
- [16] Chen, C. M., & Hwang, G. J. (2021). *Investigating the Impact of a Possibility-Thinking Integrated Project-Based Learning Approach*. Computers & Education, 168, 104210.
- [17] Lee, J. K., & Park, S. H. (2020). *Learning History Course on High School Students' Creativity, Learning Motivation, and History Knowledge*. International Journal of Instruction, 13(4), 321–338.
- [18] Chen, C. M., & Hwang, G. J. (2021). *Investigating the Impact of a Possibility-Thinking Integrated Project-Based Learning Approach*. Computers & Education, 168, 104210.
- [19] Lee, J. K., & Park, S. H. (2020). *History Course on High School Students' Creativity, Learning Motivation, and History Knowledge*. International Journal of Instruction, 13(4), 321–338.
- [20] Nokes, J. D. (2014). *Image interpretation scaffolds support adolescents' historical reasoning*. Cognition and Instruction, 32(2), 124–159.
- [21] Suharso, P., & Widodo, J. (2020). *The Applications of Historical Thinking Skills in Teaching and History Learning: Between Rhetoric and Reality*. Advances in Social Science, Education and Humanities Research, 509, 215–220.