Learning History with DeepThink: A Model to Train Critical Thinking Skills

Iqrima Basri1, Siti Fatimah2, Hera Hastuti3

1 Universitas Negeri Padang, Padang, Indonesia; iqriimbas05@gmail.com
2 Universitas Negeri Padang, Padang, Indonesia; sitifatimah@fis.unp.ac.id
3 Universitas Negeri Padang, Padang, Indonesia; herahastuti@fis.unp.ac.id

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ABSTRACT

Historical education transcends the mere acquisition of facts, aiming instead to uncover the value and significance of historical events. This shift from passive memorization to an engaged synthesis of past, present, and future highlights the critical role of analytical thinking in historical understanding. The primary concern addressed in this study is the deficiency in students' critical thinking abilities, which significantly hampers their comprehension of historical events. To address this issue, the research employs a literature review methodology to explore the pivotal role of critical thinking in history education and to develop a pedagogical strategy aimed at enhancing this skill. The result is the innovative DeepThink learning model, which is structured around a seven-step syntax designed to foster critical thinking: 1) Opening; 2) Apperception; 3) Teacher Explanation and Discussion; 4) Lighter Questions; 5) Questions Building and Argument Solutions; 6) Evaluation; and 7) Closing. This model operationalizes the six core indicators of critical thinking identified by Facione, tailored specifically to the unique demands of historical education. By embedding these universal indicators within the DeepThink model, the study ensures that they resonate with the inherent qualities of historical study. Consequently, students trained under this model are better equipped to teach history effectively as future educators.

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Corresponding Author:
Siti Fatimah
Universitas Negeri Padang, Padang, Indonesia; sitifatimah@fis.unp.ac.id

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1. INTRODUCTION

The study of history is intrinsically linked to the national values, ideals, and aspirations of Indonesia (Susanto, 2014). When taught contextually, history education can enrich each learning experience with deep meaning (Kurniawan, 2020). Despite its potential, practical implementation in classrooms often reduces history to a mere requirement of the curriculum, characterized by an overwhelming breadth of content that students are expected to memorize without fostering any applicable skills (Boadu, 2020; Handy, 2021). Furthermore, history is perceived as an abstract subject (Gottschalk, 2008) and is often viewed as irrelevant to contemporary life and future endeavors (Zed, 2018). This disconnect highlights the need for educational strategies that bridge historical knowledge with practical and future-oriented applications.

Basically, learning history requires higher thinking skills, because understanding what happened in the past in the context of life that is different from the present is much more difficult (Said Hamid Hasan, 2019). Higher-order thinking skills can be formed from critical thinking skills (Seixas, 2017a). Critical thinking is formed by several skills, such as the ability to judge something correctly or weigh relevant evidence, or identify false arguments (Dehghayedi & Bagheri, 2018). In addition, the most important aspect of a critical attitude or character is the tendency to create reflections that train students’ critical thinking towards historical events (Rokhmansyah, 2014; Mason, 2007).

Critical thinking is a fundamental skill that students must possess to analyze various pieces of information effectively and derive valid data (Mulnix, 2012; Muskita et al., 2020). This capability is not innate but can be cultivated and enhanced over time through exposure to and resolution of real-world challenges (Munawwarah et al., 2020). The process involves a series of mental activities such as identifying, defining, calculating, analyzing, and correcting, which are essential when students engage in problem-solving (Ebiendele Ebosele Peter, 2012). Moreover, the development of critical thinking skills is crucial for preparing students to navigate complex situations, make informed decisions, and contribute meaningfully to society. It also promotes a deeper understanding of academic content across disciplines, preparing students for professional and personal success in a rapidly changing world.

The problem then arises when critical thinking is not a top priority in the learning process. In Indonesia itself, critical thinking is still unfamiliar, especially in history learning. Based on the 2018 PISA results, in addition to low literacy (Agustina & Fatimah, 2020), Indonesian students’ weaknesses also lie in their ability to use the knowledge they learn to solve everyday problems (Shaw, 2021). The main cause is learning activities that only emphasize ordinary memory or just memory, while those that emphasize critical thinking are rarely done. History students may have a lot of knowledge about what happened in the past, but only up to that point (Mena, 2020). Higher cognitive abilities such as applying, analyzing, synthesizing, and evaluating are not yet fully owned by them (Oskin et al., 1999).

This study is prompted by the observed deficiency in critical thinking skills among history department students, particularly in their ability to analyze events across the three temporal dimensions: past, present, and future. Building on previous research by Zafri & Hastuti (2018), which highlighted the absence of a dedicated learning model to enhance critical thinking in history education, this research aims to address these gaps. Despite the extensive discussion on critical thinking in academic literature, there remains a notable lack of practical learning models specifically designed to improve such skills within the context of history. This research seeks to fill this void by developing a structured learning model that facilitates the enhancement of critical thinking capabilities in history students.

Critical thinking skills are indispensable for students of history (Whitehouse, 2015; Pebriani, Ranti, Zafri, 2019). Without these skills, the study of history risks being confined to endlessly recounting ancient narratives (Seixas, 2017b). This raises pivotal questions: What exactly constitutes critical thinking in the context of history, and how can it be effectively implemented in educational settings? The urgency and relevance of this research are threefold: First, it aims to refine and expand our understanding of historical thinking constructs and their application in classroom settings. Second, the
The study seeks to develop practical strategies to enhance students’ critical thinking abilities through a novel educational model. Third, given that history education often relies on generic learning models, the creation of a specialized model tailored to historical inquiry—termed ‘DeepThink’—represents a significant innovation designed to foster critical thinking skills among history students. This model not only addresses the current educational needs but also sets a new standard for history education.

The development of the DeepThink learning model represents a significant innovation in the field of history education, emphasizing its originality and novelty, as it has not been previously designed by other researchers. This model was meticulously crafted by the research team, drawing upon a comprehensive review of existing literature and studies on critical thinking skills. Prior research primarily focused on the theoretical aspects of critical thinking, highlighting a pronounced need for practical application in educational settings. The DeepThink model incorporates the IDEALS framework of critical thinking, initially applied in the Mathematics Study Program at Ibrahimy University, Situbondo, and now adapted for the History Study Program at Padang State University. This adaptation is specifically aimed at addressing two urgent issues: the deficient critical thinking skills among history students and the lack of effective models tailored to enhance these skills within the historical discipline. By introducing this structured learning model, the research seeks to significantly improve the critical thinking capabilities of history students, thereby contributing a practical and innovative tool to the academic community.

2. METHODS

This research employs a literature review methodology, commonly referred to as library research, utilizing the documentation method for critical analysis. This approach facilitates a thorough examination of educational processes designed to enhance the critical thinking skills of history students. Mestika Zed (2008) defines a literature study as the use of various literature sources to gather data for research purposes. This involves a sequence of activities such as data collection from library resources, detailed reading, recording, and processing of information to serve as research material. Sugiyono (2013) highlights that library research theoretically investigates each phenomenon under study. In addition to traditional print sources, data collection extends to digital resources, incorporating data from reliable online news portals and relevant journal publications to enrich the research (Zafri et al., 2018). This comprehensive approach ensures a robust analysis by integrating diverse sources and perspectives pertinent to the study’s objectives.

In this research, the literature study method was carried out to examine and elaborate on the writings and works of historians related to critical thinking. Some of the writings contained in international journals with the theme of critical thinking are very helpful in formulating syntax that suits educational needs to improve students’ critical thinking skills. Then the information obtained is processed and theoretically formulated into the syntax of the history learning model, namely the DeepThink Model. This DeepThink learning model is made by combining critical thinking indicators proposed by Facione (P.A. Facione, 2000), including Interpretation, Analysis, Evaluation, Inference, Explanation, and Self-Regulation, which are then combined with IDEALS critical thinking steps that have previously been applied to other sciences. In this study, Facione’s IDEALS critical thinking indicators and steps were formulated in accordance with under historical science.

3. FINDINGS AND DISCUSSION

3.1. The Importance of Critical Thinking in History Learning

Up to the present, history education lacks a specialized learning model that truly aligns with the unique essence of the subject being taught. The effectiveness of any educational program is inherently linked to the design of its learning processes. Unlike other disciplines, history involves a distinct challenge: it deals with the past, requiring an innovative approach to make historical events relevant to contemporary learners. This necessitates a dedicated learning model that not only conveys...
historical facts but also contextualizes them within both their original time frame and the modern world, thereby bridging the gap between past and present (Shaw, 2021). Such a model would facilitate a deeper understanding and appreciation of history, encouraging students to engage critically and reflectively with the material.

History is no longer limited to Knowing it, but Knowing how, meaning that the process of learning history is no longer limited to passive knowledge of facts, but is also active in the process of synchronizing the past, present, and past, simply put, is how to bring the past to the present live (Nye & Clark, 2021). Basically, learning history is the art of processing thoughts. The first thing that must be instilled in students is a critical way of thinking. According to Seixas (VanSledright, 2015), the ability to think critically can be seen from the competence in negotiating productive solutions to cases studied in classroom learning materials.

In the realm of history education, the development and enhancement of students’ historical thinking skills are integral components of teachers’ professional training (Seixas, 2017a). To cultivate these critical thinking capabilities, a variety of pedagogical tools and techniques can be employed. These include the selection of engaging media, the implementation of diverse teaching methods, the strategic use of different learning strategies, and the application of comprehensive assessments. Additionally, the incorporation of interdisciplinary approaches and technology-based resources can further enrich the learning experience, making it more interactive and relevant to contemporary students. These efforts are essential for empowering students to analyze and interpret historical data critically, fostering a deeper and more nuanced understanding of history.

One of the urgencies in renewing history learning strategies is the use of learning models that are specific to historical principles. Learning models have a very important role in training students’ critical thinking skills (Hadi Santosa et al., 2018). Learning models designed with a focus on developing critical thinking skills can provide significant benefits for students. The learning model is a very important part of the learning strategy because it provides a framework and guide for educators in planning and implementing an effective learning process (Utomo, 2015). The use of the right model will make it easier for educators to achieve learning objectives.

### 3.2. DeepThink as a Critical Thinking Model in History Learning

Departing from the problem of the low level of critical thinking of UNP history department students, the author designed a learning model with syntax that was combined using critical thinking indicators proposed by Facione (P.A. Facione, 2000). There are six critical thinking indicators that are used as the basis for making this learning model, including Interpretation, Analysis, Evaluation, Inference, Explanation, and Self-Regulation. For more details about the six indicators, the author will describe them in the following table,

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Analysis</strong> <em>(Chronologic, Causality)</em></td>
<td>Learners are led to have the ability to think complexly and broadly, that what happens in this world never happens singly and without a clear cause. That way learners are led to understand that events or phenomena that occur today can be a result or perhaps a continuation of what has happened in the past.</td>
</tr>
<tr>
<td><strong>Inference</strong> <em>(Evidence)</em></td>
<td>Learners are trained to find facts to build analysis and strengthen arguments related to the material being studied through searching for diverse and relevant sources/literature. The ability of students to sort out sources will have an impact on the ability of students to analyze information critically.</td>
</tr>
</tbody>
</table>
Indicators | Description
---|---
*Interpretation*  
*(Interpretation, Historical Perspectives)* | Learners are able to reconstruct historical understanding and understand the concept of time in history. Able to put the past, present and future in the same line, sort events that occur and can arrange them in a timeline. Thus, learners are expected to be able to take the common thread of events so as to give birth to a complete understanding.

*Explanation*  
*(Change Overtime)* | Learners are able to explain again in their own language, what is found and understood from the material concerned, this can be done orally in front of the class, as well as through tasks done in the notebook. In this section, students are led to produce opinions and arguments regarding the material that has been discussed and learned today, thus students are required to follow the learning process seriously in order to be able to explain the material properly and correctly later.

*Evaluation*  
*(Historical Literacy)* | Learners are taught to no longer separate the past, present and future, because in fact these three times are straight lines that are still 'bent'. Learners are given an understanding of the existence of patterns in history that allow an event that occurred in the past to occur again in the present and even occur in the future. That is why history can be said to be the science of space and time; history lives in it, and without space and time, history will never exist.

*Self-Regulation*  
*(Meaning)* | Learners are led to be able to interpret the events or historical material learned today, and this is done by reflecting on themselves. Thus, students will refresh their minds about the material they have just learned and then relate it to the realities that exist in everyday life, so that the values and meanings they are able to learn seem to be real in their environment.

In addition to the critical thinking indicators, this study also refers to the critical thinking steps (IDEALS) proposed by Facione (P. a. Facione, 2011), which were then modified and applied to students of the Mathematics Tadris Study Program at Ibrahimi University, Sidoarjo with the following steps;

**Table 2. The IDEALS critical thinking steps**

| Identify (I) | Ability to communicate the main ideas of the material with the arrangement of sentences and own language, either orally, in writing, pictures or diagrams. |
| Define (D) | Ability to select necessary information in constructing arguments to solve a problem |
| Enumerate (E) | Estimating ability and determining the right strategy and logic of thinking to solve a problem |
| Analyze (A) | Ability to analyze in providing arguments and making hypotheses in accordance with problem solving procedures |
| List (L) | The ability to provide information and reasons as reinforcement that the answer obtained is the correct and good one equipped with valid evidence. |
| Self-Correct (S) | Ability to correct and draw valid conclusions that the answer obtained is correct and the best one |
The application of IDEALS in mathematics study programs gave positive results, with the average percentage of achievement of students’ critical thinking skills experiencing a very significant increase, as seen from the pre-test to post-test results, which increased by 50-80% in each class. Seeing the large percentage of success in increasing critical thinking skills in research conducted by (Munawwarah et al., 2020) in the mathematics study program at Ibrahim University, Situbondo, the researcher is very enthusiastic to try to develop the IDEALS steps and combine them with critical thinking indicators that have been combined with historical characteristics.

3.3. Syntax of DeepThink Model to Train Critical Thinking Skills

The five stages in IDEALS are trying to be developed more specifically in history learning which is then concretized into a special history model called DeepThink, with the following learning steps;

3.3.1 Opening

Before the lesson begins, the teacher initiates the class by offering greetings and leading a brief prayer, setting a respectful and focused tone. Following this, attendance is meticulously checked to ensure all students are present. The teacher then engages in apperception, a vital pedagogical strategy that involves connecting new information to prior knowledge, thereby activating the students’ existing cognitive structures in preparation for the new lesson. This process not only helps in bridging past learning with the day’s objectives but also enhances student engagement and readiness to learn.

3.3.2 Apperception

Educators convey the objectives to be achieved in this lesson and at the same time motivate students to be enthusiastic and active in participating in the lesson.

3.3.3 Teacher Explanation and Discussion (Analyze)

At this stage, the educator builds students’ knowledge about events, through the delivery of material. The educator explains the material chronologically or in order of time so that students can focus on listening to the teacher’s explanation. The explanation of this material is done briefly, so the main communication created is one-way, where the educator becomes the main source of material, then in the process of explaining, the educator will ask light questions whose purpose is to invite students to start interested and curious about the material presented. At this stage, the educator also tries to provide stimulus through questions about cases or current events that are similar or may have a link to the events and material to be discussed, so that students can learn contextually in this process.

In this initial stage, the educator is assisted with handouts containing concepts and brief descriptions of related material. This is because at this stage the focus is on efforts to build student knowledge related to the material first, so that students have enough material and knowledge to conduct in-depth analysis. This handout is also a border for students so that the discussion does not deviate far from what it should be. At this stage, students’ critical thinking is trained through the process of analyzing material chronologically and causally. Then at this stage, the educator also provides provoking questions whose purpose is to create Classroom discussion, which is a large discussion between students and educators.

3.3.4 Lighter Questions (Inference)

At this stage, after students have basic knowledge related to the material, the next important point is to provide the main material for discussion, namely in the form of questions or lighter statements (motions) that will become material for discussion and discussion of students in class. Through this question, the teacher explores the historical thinking ability of students, where the questions given must contain questions that are able to build students’ critical thinking which can be seen from how students
understand the material in chronology, causality, and 3D time. The characteristics of the questions given in this stage are analytical in nature, so students are required to answer analytically and critically.

At this stage, students will be led to explore and find as many references as possible related to the motion that has been given. Students' critical thinking is trained through the inference process, namely identifying related information to obtain valid, relevant, and accurate information in order to build arguments in the next stage.

3.3.5 Questions Building and Argument Solutions (Interpretation and Explanation)

At this stage, student activities are question building, or the process of building an understanding of the motion being discussed. At this stage, students' critical thinking is trained through the process of elaborating references and knowledge that has been obtained. Then, students conduct an in-depth analysis related to the material and information findings. The results of the analysis are then interpreted in their own language, which is easy to understand. Furthermore, students will deliver and explain the results of their reconstruction and analysis in the form of argument solutions in front of the class.

3.3.6 Evaluation (Evaluation and Self-Regulation)

This stage is applied in the form of self-regulation, by criticizing arguments and information submitted between students. With the materials and knowledge they have, each student validates the arguments and findings of other students, so that the critical thinking process will be created through arguments. At this stage, student activities will dominantly question, confirm, validate, or correct one's reasoning or the results of other students' understanding. Then students will be led to draw conclusions from what is being discussed. The most important point of this stage is how students are able to find meaning from today's learning, so that the learning process that has taken place provides impressions and values that are useful in everyday life.

3.3.7 Closing

After completing the learning process and coinciding with the end of the class hour, the teacher concludes the lesson by delivering motivational remarks, expressing gratitude, and offering final greetings. Critical thinking is a fundamental component in education, as it is essential across all scientific disciplines. This is particularly true in history education, where a deep level of analytical thinking is necessary to understand historical facts and extract valuable lessons and meanings applicable to present and future contexts. Numerous strategies can enhance critical thinking skills in educational settings, one of the most pivotal being the adoption of an effective learning model (Jodoi et al., 2021).

This research proposes a novel approach to fostering critical thinking in history education through the development of a specialized learning model named DeepThink. DeepThink is specifically designed to cultivate critical thinking skills, structured around concrete, measurable steps based on critical thinking indicators. Each step in the DeepThink model explicitly guides students towards a more analytical and evaluative mindset. As a model tailored for history education, DeepThink supports the integration of various methods, media, approaches, and strategies, ensuring that each component of the learning process is optimally aligned to enhance critical thinking.

3.4. Discussion

Field observations reveal that history is often one of the least preferred subjects among students (Basri & Hastuti, 2020). Common student perceptions such as "history is boring," "it's just about the past," "the material is overwhelming," and "history is complicated" contribute to this aversion, thereby marginalizing history as a mandatory subject in educational curricula. Despite these negative
sentiments, the importance of history in fulfilling educational objectives remains undiminished. The effectiveness of history education largely hinges on pedagogical approaches; how history is taught significantly influences students’ perceptions and engagement with the subject (Hong et al., 2023). Thus, reimagining teaching methods to make history more engaging and relevant could alter students’ attitudes and enhance their appreciation of the discipline’s value.

In the realm of history education, it is crucial for educators to design instructional approaches that actively foster students’ critical thinking abilities. This study focuses on the deployment of a specifically crafted learning model that integrates critical thinking indicators, reinforcing the importance of such pedagogical strategies (Demirhan & Köklükaya, 2014). The DeepThink history learning model, developed through this research, is specifically aimed at enhancing students’ capacity to critically analyze events, whether historical or contemporary. This model not only supports the academic development of students but also prepares them to apply critical thinking skills in real-world contexts, thereby bridging the gap between theoretical knowledge and practical application. The goal is to transform the conventional study of history into a dynamic and analytical discipline that equips learners with the tools necessary to interrogate and interpret complex narratives.

Peter Facione’s seminal work, “Critical Thinking: What It Is and Why It Counts” (Facione, 2011), serves as a foundational reference for this research. In his article, Facione elucidates that critical thinking is purpose-driven, aiming to establish a point, interpret meanings, and resolve problems. He emphasizes that critical thinking should be a collaborative and noncompetitive process, involving the continuous analysis and evaluation of arguments presented by others. Facione posits that critical thinking is an essential, intelligent mode of reasoning that everyone should possess.

Furthermore, Robert Thorp and Anders Persson (Thorp & Persson, 2020) in their article “On Historical Thinking and The History Educational Challenge,” argue that while history is essentially the study of the past, its true value lies in imparting lessons for the present and future. They discuss how historical thinking acts as a means to unearth the underlying significance of past events and establish a direct, unbroken link between historical thinking and history education. I Gde Widja, in his article “Pembebelajaran Sejarah Yang Mencerdaskan” (Widja, 2018), stresses the importance of reinvigorating history education to meet the demands of the Fourth Industrial Revolution. He advocates for a shift in history teaching methodologies to better address global challenges through a critical thinking lens. Drawing from these expert perspectives, it becomes evident that critical thinking is integral to effective and meaningful history learning. This research, therefore, seeks to bridge the gap between historical theory and practice by developing a learning model based on critical thinking indicators.

The resultant DeepThink learning model is a significant innovation in history education. Designed specifically to align with the unique traits of historical inquiry, this model ensures that every educational step fosters critical thinking and enhances students’ appreciation of history’s relevance to contemporary and future contexts. By doing so, the DeepThink model offers substantial support to history educators, empowering them to deliver more engaging, thoughtful, and impactful lessons. Furthermore, the implementation of this model represents a transformative approach to teaching history, one that could potentially reshape how students perceive and interact with historical content. Ultimately, by integrating the DeepThink model into history curricula, educators are provided with a robust framework that not only addresses educational needs but also prepares students to become insightful thinkers and informed citizens in a complex global society.

4. CONCLUSION

The reality in educational settings reveals that history remains one of the least favored subjects among students. Common criticisms label history as boring, overly complex, and irrelevant—mere stories of the past. Despite these challenges, history remains a foundational subject within educational curricula, essential for achieving educational objectives. The interpretation and appreciation of history hinge significantly on instructional approaches. A critical issue, as persistent as these negative perceptions, is students’ inadequate critical thinking skills in understanding history. Therefore, it is
imperative for educators to design learning experiences that enhance students’ critical thinking abilities. This study introduces the DeepThink history learning model, which is strategically developed with critical thinking indicators. The model aims to equip students with the skills necessary to critically analyze historical events from the past and present. Employing the six main indicators of critical thinking proposed by Facione, the DeepThink model is tailored specifically to the demands of historical education, ensuring that these universal indicators are adapted to the unique context of history. This prepares students, particularly those who aspire to become educators, to teach history effectively and meaningfully.

This research, while innovative, acknowledges certain limitations, primarily its reliance on the theoretical framework of the DeepThink model without extensive empirical validation across diverse educational settings. Future research should focus on implementing the model in various contexts to broadly assess its effectiveness. Further investigations could also explore the integration of technology and digital resources within the DeepThink model to enhance its relevance and engagement in contemporary classrooms. Additionally, examining the long-term effects of the DeepThink model on students’ critical thinking skills and their professional practices as educators would provide valuable insights. Expanding research in these directions will deepen our understanding of how best to prepare future historians with the critical thinking skills necessary for effectively interpreting and teaching history.

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