Transforming History Education: Enhancing Student Engagement and Literacy through Interactive Methods

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Abstract – This study aims to evaluate the effectiveness of interactive methods in improving student engagement and historical literacy. The research design was quasi-experimental, involving an experimental group that received education through interactive methods and a control group that received traditional history education. The study was conducted in three high schools in Yogyakarta, Indonesia, with a sample of 500 students. A purposive sampling technique was used, selecting schools based on certain criteria aligned with the research objectives. Data were collected through written tests for pre-test and post-test to measure student engagement and historical literacy, and reinforced with student engagement survey sheets. Data analysis used included descriptive statistics, t-test and ANOVA. The results showed that the use of interactive methods significantly increased cognitive, emotional, and behavioral engagement, as well as students' historical literacy. The experimental group showed a significant increase in all engagement indicators and historical literacy scores from pre-test to post-test compared to the control group which showed minimal changes.

The results of this study confirm that interactive methods are more effective in improving students' engagement and literacy in history education compared to traditional methods. The results of this study significantly contribute to the field of history learning by providing empirical evidence on the efficacy of active methods in improving students' engagement and historical literacy. History teachers are encouraged to implement active learning methods to address the low levels of historical engagement and literacy found among students.

Keywords – student engagement, historical literacy, interactive methods.

1. Introduction

In the modern educational landscape, enhancing student engagement has become a top priority due to its crucial role in improving learning outcomes. Traditional lecture-based teaching methods often fail to effectively capture students' attention, especially in subjects like history [1], [2]. This has led to an urgent need to develop more interactive methods to boost student engagement. Increased engagement is expected not only to enhance active participation in the classroom but also to improve students' understanding and literacy in history [3].

Recent research indicates that interactive methods, such as group discussions, role-playing, and the use of digital technology, can significantly increase student engagement [4]. Camacho-Tamayo & Bernal-Ballen found that interactive methods like role-playing can enhance students' understanding of historical material [5]. Additionally, research by Sousa et al. shows that interactive methods can enhance cognitive and emotional engagement, which directly contributes to improved learning outcomes [6]. These findings emphasize the importance of interactive methods in revolutionizing history teaching, making it more engaging and relevant for students [7], [8].

The main problem addressed in this research is the low level of historical understanding and literacy among students in Indonesia.

According to data from the Programme for International Student Assessment (PISA) in 2018, Indonesia ranked 72nd out of 77 countries in reading ability, reflecting a globally low level of historical literacy [9]. Traditional lecture-based teaching methods often fail to maintain student attention, impacting low participation and comprehension of historical material [10]. Furthermore, historical literacy in Indonesia lags behind that in developed countries, where interactive methods are more commonly used and have been proven to enhance learning outcomes [11]. The proposed solution is the implementation of interactive methods designed to increase active participation and interest among students [12]. These methods include the use of role-playing, which can make learning history more engaging and relevant [13]. Thus, this research aims to evaluate the effectiveness of interactive methods in enhancing engagement and historical literacy among students in Indonesia [14].

Scientific literature shows that the use of role-playing in history teaching can significantly increase student engagement. Ofianto et al. found that role-playing allows students to experience historical events [15], which increases their participation and literacy in the classroom. Moreover, these simulations provide a dynamic learning experience, enabling students to understand historical concepts through direct exploration and project-based learning [16], [17]

Additionally, interactive methods such as role-playing and group discussions have also proven effective. Role-playing helps students gain a deeper understanding of historical events and the perspectives of historical figures [14]. Sousa et al. add that group discussions encourage students to share views and engage in critical discussions, which enhance their cognitive and emotional engagement. The combination of role-playing and group interactions creates a more engaging and collaborative learning environment, thereby improving student engagement and historical literacy [1], [12].

Research on enhancing student engagement and literacy in history education has shown various effective approaches. Sousa et al. emphasize that group discussions enhance students' cognitive and emotional engagement, which in turn improves their understanding of historical material. They found that this method encourages students to think critically and actively participate in the learning process, which is crucial in enhancing historical literacy [18].

Furthermore, research by Camacho-Tamayo & Bernal-Ballen shows that role-playing helps students develop a deeper understanding of historical events and perspectives of historical figures, as students can feel and enact these events directly.

Although many studies have proven the effectiveness of interactive methods, there is a research gap, particularly in the context of education in Indonesia. Existing literature, as demonstrated by Perry et al., has largely been conducted in developed countries where technological infrastructure and interactive methods are more commonly implemented [19]. In Indonesia, the low levels of historical literacy and student engagement indicate that interactive methods have not been widely or effectively adopted [12]. This gap highlights an urgent need to evaluate and implement interactive methods tailored to the educational context in Indonesia, to significantly improve student engagement and historical literacy [20]. This research aims to fill that gap by evaluating the effectiveness of interactive methods, such as role-playing, in enhancing engagement and historical literacy among students in Indonesia. The primary focus of the research is to address the challenges of low engagement and historical literacy identified in the Indonesian education system [21]. By applying more dynamic and interactive methods, this study hopes to enhance active student participation and their understanding of historical material [22]. This evaluation will provide important empirical insights on how interactive methods can be effectively implemented in the context of history education in Indonesia.

The hypothesis statement of this study is that interactive methods will be more effective than traditional methods in increasing student engagement and historical literacy. The current research gap lies in the lack of studies evaluating interactive methods in history education in Indonesia [23]. By integrating role-playing into history teaching [24], this research offers a new approach that has not been widely explored in Indonesia. The novelty of this research is also seen in the focus on measuring the effectiveness of interactive learning compared to traditional methods, where often history learning research only focuses on the application of new methods without any measurement of effectiveness compared to traditional methods. The scope of this research includes testing interactive methods on secondary school students, using both quantitative and qualitative approaches to measure changes in student engagement and historical literacy.

The results of this study are expected to make a significant contribution to the development of more effective and engaging history learning strategies in Indonesia.

This research aims to evaluate the effectiveness of interactive methods in enhancing student engagement and historical literacy in Indonesia.

Focusing on methods such as group discussions, role-playing, and simulations, this study seeks to identify whether interactive approaches can lead to significant improvements in cognitive, emotional, and behavioral engagement, as well as the ability of students to understand and analyze historical material compared to traditional teaching methods. Thus, this research addresses the following research questions:

1. How do interactive methods affect cognitive, emotional, and behavioral engagement in history classes?
2. Are interactive methods more effective in enhancing students' historical literacy compared to traditional methods?

These questions are designed to directly measure the impact of implementing interactive teaching techniques and to determine whether these methods can be considered a more effective solution for enhancing students' understanding and engagement with historical material.

2. Methodology Section

This study employed a quasi-experimental design to assess the effectiveness of interactive methods on student engagement and historical literacy. Two groups, an experimental group and a control group, were formed, where the experimental group received education using interactive methods while the control group received traditional history education. This research was designed to last for one semester, allowing for the comprehensive collection of data to evaluate the medium-term impact of the educational intervention on the variables studied.

The respondents in this study were students from three high schools in Yogyakarta: SMAN 1 Yogyakarta, SMAN 5 Yogyakarta, and SMAN 8 Yogyakarta. A total sample of 500 students was taken, with an even distribution between the experimental group and the control group, 250 students per group.

Each school contributed a proportional number of students to ensure a good representation of the student population in Yogyakarta, Indonesia, covering a diverse range of demographic and academic backgrounds.

The instruments used in this study included written tests (pre-test and post-test) designed to measure historical literacy and student engagement. Additionally, a student engagement survey that measures cognitive, emotional, and behavioral aspects was also implemented before and after the intervention period.

This will provide qualitative data on students' interactions and their level of engagement during the learning process.

Data were collected through several methods, including written tests for pre-tests and post-tests, student engagement surveys, and classroom observations. Written tests were used to measure changes in historical knowledge and student engagement before and after the implementation of teaching methods. The engagement survey gathered data on students' perceptions of their learning experiences. Data analysis involved descriptive statistics to assess the basic characteristics of the sample, as well as t-tests and ANOVA to evaluate significant differences between the experimental and control groups before and after the intervention. This analysis helped determine the effectiveness of interactive methods in enhancing students' historical literacy and engagement.

3. Results

The results of this study include aspects of student engagement and historical literacy tested through control and experimental classes.

3.1. Student Engagement

The use of interactive methods proved significantly effective in enhancing student engagement, as reflected in the pre-test and post-test scores measured in the experimental group. Table 1 below presented a comparison of the scores for cognitive, emotional, and behavioral engagement between the experimental and control groups, showing significant improvements in all aspects of engagement for the group that received interactive methods.

Table 1: Comparison of Student Engagement Scores Pre-test and Post-test

Group	Measurement	Pre-Test (Mean ± SD)	Post-test (Mean ± SD)	p-value
Experimental	Cognitive	60 ± 10	85 ± 8	<0.001
	Emotional	55 ± 10	80 ± 7	<0.001
	Behavioral	58 ± 9	83 ± 8	<0.001
Control	Cognitive	60 ± 10	62 ± 9	n/a
	Emotional	55 ± 10	56 ± 10	n/a
	Behavioral	58 ± 9	59 ± 9	n/a

3.2. Historical Literacy

In addition to improved engagement, the experimental group also showed significant improvements in historical literacy. Table 2 below displayed the average score increase from pre-test to post-test, indicating that interactive teaching had a strong positive impact on students' understanding of history.

Table 2: Comparison of Historical Literacy Scores Pre-test and Post-test

Group	Pre-test (Mean ± SD)	Post-test (Mean ± SD)	p-value
Experimental	65% ± 15%	90% ± 10%	<0.001
Control	64% ± 15%	68% ± 15%	n/a

These results indicated that the implementation of interactive methods was significantly more effective than traditional methods in enhancing engagement and historical literacy among high school students.

Statistical analysis provided strong evidence that interactive methods could facilitate a deeper understanding of historical material and enhance students' analytical and critical thinking skills. This underscored the importance of integrating more dynamic and interactive teaching approaches into the history curriculum to improve learning outcomes and student experiences.

4. Discussion

The results obtained show a significant increase in all aspects of student engagement—cognitive, emotional, and behavioral—in the experimental group that received interactive teaching. Data from Table 1 indicate that cognitive engagement increased from an average pre-test score of 60 to a post-test score of 85, emotional engagement from 55 to 80, and behavioral engagement from 58 to 83, with all increases being statistically significant ($p < 0.001$). These results can be illustrated in the following Figure 1.
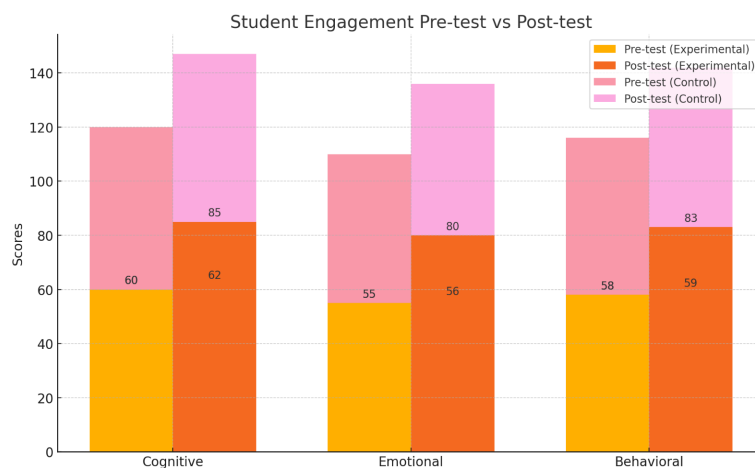

Figure 1. The graph of student engagement pre-test vs post-test

This improvement demonstrates that interactive methods, which emphasize active participation and experience-based learning, are more effective at engaging and maintaining student attention compared to traditional lecture methods.

This aligns with educational theories that suggest students are more engaged when they are active participants in the learning process [25], which not only enhances motivation but also supports deeper and more meaningful learning [1].

Meanwhile, the results from the pre-test and post-test related to historical literacy, as noted in Table 2, show a significant increase in the experimental group with scores rising from 65% to 90%.

In contrast, the control group only showed a marginal increase from 64% to 68%. These results can be illustrated in the following Figure 2.
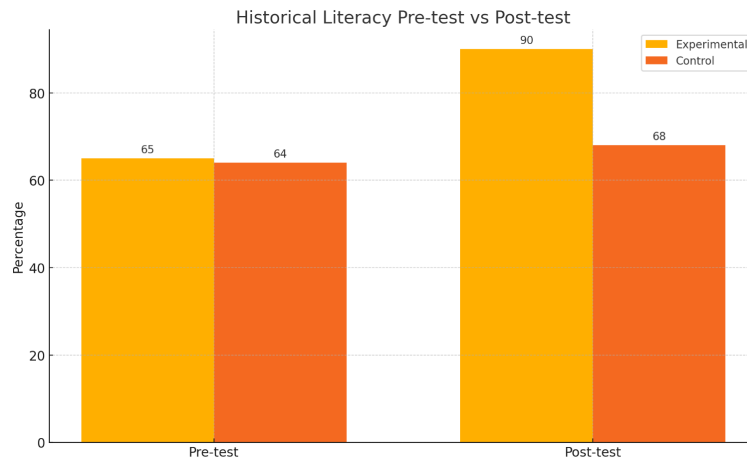

Figure 2. The graph of Historical literacy pre-test vs post-test

The dramatic improvement in the experimental group ($p < 0.001$) confirms that interactive methods, which enrich the learning process with discussion, critical analysis, and reflection, effectively strengthen historical literacy. This enhancement of literacy includes the students' ability to analyze and evaluate historical sources and to apply historical understanding in broader contexts. These findings support the hypothesis that interactive approaches promoting inquiry and critical reflection can facilitate a deeper understanding of history [13], developing critical and analytical thinking skills that are essential components of historical literacy [26], [27].

The results of this study indicate significant improvements in cognitive, emotional, and behavioral engagement, as well as historical literacy, through the use of interactive methods compared to traditional methods. This is consistent with existing literature that shows interactive methods such as group discussions and role-playing can enhance engagement and literacy in various disciplines [28]. This aligns with findings from Phimphimon et al., who emphasizes the importance of active student engagement in history learning to develop effective historical literacy [29].

The advantage offered by this study lies in its highly relevant application within the context of Indonesian education, where teaching methods are still predominantly traditional and lack an emphasis on active student engagement [30]. Through a robust quasi-experimental design and comprehensive statistical analysis, this study not only reinforces the claim that interactive methods can enhance engagement and historical literacy but also provides empirical evidence that this approach is more effective than traditional methods in improving significant learning outcomes [14].

This research distinguishes itself by effectively demonstrating the clearer benefits of interactive methods in the context of history education in Indonesia, an area that has not been extensively explored. A significant advantage of this study over previous literature is its ability to implement and test interactive methods in an educational scenario that is not accustomed to such approaches. Unlike studies often limited to educational contexts in more developed countries with adequate resources, this research shows how interactive methods can be adopted in contexts with greater infrastructural and resource challenges [31].

Additionally, this study provides empirical data supporting the enhancement of historical literacy through interactive methods, which is often implied but not explicitly measured in many previous studies such as those by Domenici. This success provides strong support for the widespread adoption of this approach in educational systems that still rely on lecture and rote memorization methods [9]. With a focus on rigorous evaluation and solid statistical analysis, this research offers valuable insights that can guide the development of educational policies and more effective teaching practices [32], not only in Indonesia but also in countries with similar conditions.

The findings from this study are highly significant both scientifically and practically. Scientifically, this research makes a significant contribution to the educational literature by validating the effectiveness of interactive methods in a context that has not been extensively explored, namely history education in Indonesia. Specifically, these findings affirm that interactive methods not only enhance general student engagement but also specifically strengthen historical literacy, which includes deep understanding of events, critical analysis of sources, and reflection on historical implications [33].

From a scientific perspective, this expands our understanding of how teaching methods can be tailored to maximize learning outcomes in disciplines that require critical and analytical thinking, such as history [34].

From a practical standpoint, the implications of this research are highly relevant for education in Indonesia and countries with similar conditions, where traditional methods still dominate. By demonstrating the clear advantages of interactive methods, this study encourages curriculum reform and teaching methodology renewal. This becomes especially important in today's digital era, where students tend to be more responsive to interactive and dynamic learning methods [35]. Additionally, the successful implementation of these interactive methods provides guidance for educators to design more engaging and motivating learning activities [22], thereby having the potential to enhance the quality of education and broadly improve learning outcomes [36].

Overall, the findings from this research not only add to the body of educational knowledge but also serve as a catalyst for transforming teaching practices that can adapt educational innovations to achieve more effective and comprehensive learning outcomes [10], [37]. This encourages a more reflective and adaptive approach in education, which ultimately can help students not only understand history as the past but also as a tool to comprehend and navigate the complexities of the contemporary world [38].

5. Limitation

One limitation of this study is that it was conducted within a limited context of a few high schools in Yogyakarta, Indonesia, which may not fully represent the diversity of historical education conditions across the country. This means that the findings may not be generalizable to the entire student population in Indonesia, especially in areas with significant differences in resources and educational environments. Additionally, this research used a quasi-experimental design without full randomization, which could affect the strength of causal inference between teaching methods and student learning outcomes. Consequently, there may be uncontrolled confounding variables that could affect the results of the study. This limitation indicates the need for further studies involving various locations and more rigorous experimental designs to verify the effectiveness of interactive methods in history education more broadly.

6. Suggestions

The suggestions from this study emphasize the importance of implementing interactive methods in the history curriculum of Indonesian schools to address the low levels of engagement and historical literacy found among students. Following results that show significant improvements in engagement and understanding of historical material through interactive approaches, this research recommends more intensive teacher training in interactive methods such as group discussions, role-playing, and simulations. This will enable teachers to more effectively apply these techniques in the classroom. Furthermore, it is advised to conduct further research to evaluate the implementation of these strategies in other subject contexts and at different educational levels, to determine the adaptability and effectiveness of interactive methods on a broader scale. Thus, this approach will not only enhance the quality of history learning but can also make a significant contribution to overall educational reform in Indonesia.

7. Conclusion

This research demonstrates that the use of interactive methods, including group discussions and role-playing, significantly enhances engagement and historical literacy among high school students in Indonesia. These findings confirm that interactive methods are more effective than traditional approaches, which often rely on lectures and rote memorization, in enhancing cognitive, emotional, and behavioral engagement as well as deep understanding of history. The implications of this study are significant for education in Indonesia, supporting educational reforms that integrate interactive approaches into the curriculum to facilitate deeper understanding and analytical skills among students. This research also fills a gap in the educational literature by providing empirical evidence of the benefits of interactive methods in a less explored educational context, such as in developing countries, making a significant contribution to the practical application of interactive educational theories and encouraging the adoption of innovative teaching methods globally.

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