

The Influence of Slideshow-Based Video Media on Students' Critical Thinking Skills in the Prehistoric Indonesia Material at SMA Negeri 1 Cikeusal

Rian Maulana Arisala^{1*}, Nashar², Tubagus Umar Syarif Hadi Wibowo³

^{1,2,3}History Education, Faculty of Teacher Training and Education, Universitas Sultan Ageng Tirtayasa, Indonesia

*correspondence email : ryankeren44@gmail.com

Received 23 December 2024; Received in revised form 23 March 2025; Accepted 17 September 2025

Abstrak

Penelitian ini bertujuan untuk mengetahui pengaruh media video berbasis *slideshow* terhadap keterampilan berpikir kritis peserta didik pada materi Indonesia Zaman Pra-Aksara di SMA Negeri 1 Cikeusal Tahun Ajaran 2020/2021. Metode yang digunakan adalah kuasi eksperimen dengan teknik *purposive sampling*. Sampel penelitian diambil pada bulan Agustus-September 2020. Data keterampilan berpikir kritis diperoleh melalui *pretest* dan *posttest* pada kelas kontrol dan kelas eksperimen. Analisis data menggunakan uji-t. Hasil penelitian menunjukkan adanya perbedaan signifikan keterampilan berpikir kritis antara siswa yang menggunakan media video berbasis *slideshow* dan siswa yang tidak menggunakannya. Uji perbedaan rata-rata (uji-t) satu pihak dengan $\alpha = 0,05$ menunjukkan t hitung $>$ t tabel, sehingga H_0 ditolak dan H_a diterima. Dengan demikian, dapat disimpulkan bahwa penggunaan media video berbasis *slideshow* berpengaruh signifikan terhadap keterampilan berpikir kritis peserta didik pada materi Indonesia Zaman Pra-Aksara.

Kata kunci: berpikir kritis, media pembelajaran, video *slideshow*.

Abstract

This study aims to determine the effect of slideshow-based video media on students' critical thinking skills in the topic of Prehistoric Indonesia at SMA Negeri 1 Cikeusal in the 2020/2021 academic year. The research employed a quasi-experimental method with purposive sampling. The sample was collected in August-September 2020. Data on students' critical thinking skills were obtained through pretests and posttests administered to both control and experimental classes. Data were analyzed using a t-test. The findings indicate a significant difference in critical thinking skills between students who used slideshow-based video media and those who did not. The one-tailed t-test at $\alpha = 0.05$ showed that t calculated exceeded t table, thus rejecting H_0 and accepting H_a . It can be concluded that the use of slideshow-based video media has a significant influence on students' critical thinking skills in the topic of Prehistoric Indonesia.

Keywords: *critical thinking, instructional media, slideshow video.*

INTRODUCTION

The paradigm shift in education has transformed learning from a behavioristic approach to a constructivist one, shifting the focus from teacher-centered to student-centered learning (Yamin, 2013:61). This shift emphasizes the active involvement of students in developing their thinking skills. Constructivist learning highlights the role of students in

constructing their own knowledge (Umamah, 2008:38). However, in practice, students are often not sufficiently encouraged to develop their thinking abilities (Sanjaya, 2014:1).

The basic principles of constructivist learning are: (1) knowledge is actively constructed by students; (2) the learning process emphasizes students' roles; and (3) teachers act as facilitators

(Aunnurrahman, 2012:25). In this paradigm, students are facilitated to think independently, solve problems, and develop critical, creative, and rational thinking.

In SMA Negeri 1 Cikeusal, teacher-centered learning remains dominant. Based on classroom observations, teachers tend to rely heavily on lecture methods. Students sit, listen, and take notes, with limited opportunities to ask questions. As a result, the teacher becomes the sole source of information. Moreover, the limited use of instructional media often makes lessons monotonous, leading to passive student participation. Such conditions negatively affect the development of students' critical thinking skills, as they remain passive during the learning process. History learning, however, requires critical thinking skills to interpret historical events, foster historical awareness, and help students understand the nation's identity in the past, present, and future.

An interview conducted on Wednesday, October 23, 2019, at 10:00 a.m. with a history teacher at SMA Negeri 1 Cikeusal revealed several issues: (1) the use of conventional teaching methods such as lectures and assignments, (2) limited use of instructional media, (3) passive and less motivated students who show low critical thinking skills, and (4) poor student learning outcomes, as reflected in

many students failing to reach the minimum passing grade (KKM) of 75.

The use of appropriate and engaging media can enhance students' critical thinking skills during the learning process, one of which is slideshow-based video media. According to Haryoko (2009:3), technology-based instructional videos can serve as an alternative for optimizing the learning process because they are easy to package, engaging, and editable at any time. In addition, audiovisual media can motivate students and stimulate curiosity, which eventually leads to deeper understanding. Instructional media, in essence, are communication tools used by teachers to deliver messages that are easily understood by students. In history learning, instructional media can help visualize historical events, enabling students to grasp and internalize past events.

Visualizing the past through historical learning whether by direct observation or multimedia presentation can stimulate students' interest and foster their critical thinking skills. The researcher chose slideshow-based video media because it is particularly suitable for history learning. A slideshow video consists of slides or still images presented in video format, enhanced with audio elements. Such media provide dual-channel input: auditory (through sound) and visual (through images), allowing

students to process learning materials more effectively. As Mayer (2009:81) suggests, simultaneous auditory and visual stimulation enhances comprehension and retention. Therefore, slideshow-based video media is expected to improve students' critical thinking skills.

METHODS

The research employed a quasi-experimental method. A quasi-experiment is a research design that includes a control group but does not fully control external variables that may affect the experiment (Sugiyono, 2015:114). In line with the research objectives, this study is categorized as experimental research, which involves controlling, manipulating, and observing research subjects.

The experimental design used was the *posttest-only control group design*. In this design, two groups are randomly selected (Sugiyono, 2014:76). One group serves as the control group, while the other acts as the experimental group. The experimental group receives the treatment, whereas the control group does not. After a predetermined period, both groups are measured. The comparison between the two groups indicates the effect of the treatment (Latipun, 2014:74). The control group functions as a comparison for the experimental group that receives the treatment.

Population and Sample

The population in this study consisted of all Grade X Social Science (IPS) students at SMA Negeri 1 Cikeusal, totaling 148 students. According to Sugiyono (2015:117), a population is the generalization area comprising objects or subjects with certain qualities and characteristics determined by the researcher for study and conclusion.

The sampling technique used was purposive sampling, which is a sampling method based on specific considerations (Sugiyono, 2015:124). The samples were class X IPS 4 (32 students) as the experimental group and class X IPS 3 (32 students) as the control group. The selection was based on the history teacher's recommendation, ensuring that both classes had similar academic abilities. Given the large population size, sampling was conducted to represent the population with comparable characteristics.

Data Collection

The study employed tests administered twice, namely a pre-test and a post-test. The pre-test was conducted in both experimental and control classes to measure students' initial abilities. The post-test was conducted at the end of the learning process to determine students' final abilities after the treatment.

Additionally, observations were carried out on Wednesday, October 23,

2019, in class X IPS 4 at SMA Negeri 1 Cikeusal. The researcher directly observed history lessons and noted that students were less enthusiastic during the learning process. Students appeared passive when teachers asked questions, showed limited critical thinking skills, and struggled to analyze images, provide conclusions, or articulate problems and provisional solutions using arguments.

Data Analysis

Data were analyzed using descriptive statistics in the form of frequency distribution tables, graphs, mode, mean, median, variance, range, and standard deviation.

RESULTS AND DISCUSSION

Pre-test Results

Before the treatment was given, both the experimental class (X IPS 4) and the control class (X IPS 3) were administered a pre-test to measure their initial critical thinking skills. The analysis results showed that the average pre-test scores of the two classes were not significantly different. This finding confirms that the initial abilities of students in both groups were relatively balanced and homogeneous, which validates their appropriateness as research samples. Consequently, any differences in the final outcomes can be reasonably attributed to the treatment in the form of slideshow-based video media, rather than

differences in students' prior knowledge or initial critical thinking skills. This balance at the baseline stage strengthens the credibility of the subsequent comparison between the experimental and control groups.

Post-test Results

After the learning process was completed, the students were given a post-test to evaluate the development of their critical thinking skills. In the experimental class, the post-test average score showed a remarkable and statistically meaningful increase compared to the pre-test average. Students demonstrated greater ability in addressing questions that reflected the indicators of critical thinking, such as analyzing historical evidence, connecting multiple facts into a coherent framework, drawing well-grounded conclusions, and presenting logical reasons to explain a phenomenon in prehistoric Indonesian history. This suggests that the use of slideshow-based video media not only facilitated better comprehension of the material but also encouraged higher-order thinking skills among the learners.

In contrast, the control class, which was taught using a conventional lecture method without slideshow-based video, showed only a slight increase in their post-test scores compared to their pre-test results. While some improvement was observed, the gain was relatively

modest and much smaller than that of the experimental group. This result indicates that the traditional lecture approach, although capable of transmitting factual knowledge, remains insufficient to optimally stimulate the development of students' critical thinking abilities.

Comparison Between Experimental and Control Classes

A clear distinction emerged when comparing the post-test outcomes of the experimental and control groups. The experimental class consistently outperformed the control class, not only in terms of average scores but also in the quality of student engagement. Qualitative observations during the lessons revealed that students in the experimental class were more active in participating in group discussions, more confident in expressing their personal opinions, and more adept at connecting prehistoric historical content to contemporary social issues or real-life situations. On the other hand, students in the control class tended to be more passive, less willing to articulate their viewpoints, and often struggled when asked to formulate logical conclusions from the material they had studied. This comparative evidence reinforces the notion that slideshow-based video media contributes positively not only to cognitive outcomes but also to classroom dynamics and student participation.

Statistical Analysis

To verify whether the observed differences were statistically significant, the data were analyzed using a one-tailed t-test with a significance level of $\alpha = 0.05$. The statistical calculation revealed that the t-value obtained from the data was greater than the critical value of the t-table ($1.44 > -2.64$). Based on the hypothesis testing criteria, the null hypothesis (H_0), which stated that there was no significant difference in critical thinking skills, was rejected. Meanwhile, the alternative hypothesis (H_a), which stated that the use of slideshow-based video media significantly influenced critical thinking skills, was accepted. Therefore, it can be confidently concluded that the slideshow-based video media had a significant and positive impact on students' critical thinking skills in the context of learning Indonesian Prehistoric history. This statistical evidence underscores the reliability of the findings and rules out the possibility that the results occurred merely by chance.

The findings of this study clearly demonstrate that the use of slideshow-based video media significantly improves students' critical thinking skills in learning Indonesian Prehistoric history. This result aligns with the theoretical perspective of Ennis (2011), who emphasized that critical thinking involves a combination of dispositions and abilities, such as analyzing evidence, making logical

connections, evaluating arguments, and drawing reasoned conclusions. In this study, the experimental class showed substantial progress in these dimensions of critical thinking, which validates the notion that appropriate instructional media can provide scaffolding for students to exercise and develop these higher-order skills.

The observed increase in student performance also supports the argument presented by Miarso (2014), who noted that educational technology, when effectively designed and implemented, can serve as a “seed of learning innovation” that enhances the quality of education. The slideshow-based video medium, by integrating audio, visuals, and structured sequences of information, offered a more engaging and comprehensive representation of abstract historical concepts compared to traditional lecture methods. Such multimodal representation helped students grasp the complexity of prehistoric events and processes, which in turn facilitated deeper analysis and reflection.

Several previous studies also corroborate the results of this research. Ainina (2014) found that the utilization of audiovisual media in history education serves as an effective resource to stimulate student interest and improve learning outcomes. Similarly, Hasan (2016) reported that audiovisual media

contributed positively to learning completeness in social studies, particularly in topics related to technological developments. The findings of the present study extend these earlier works by highlighting not only the enhancement of learning outcomes but also the specific growth in critical thinking competencies through slideshow-based video learning.

Furthermore, Ojuwo (2014) showed that audiovisual resources had a significant impact on both teaching and learning in Nigerian schools, reinforcing the idea that such media are not limited by cultural or geographical contexts but possess universal pedagogical value. In line with Ojuwo’s research, the current study revealed that audiovisual slideshow media not only improved students’ test scores but also cultivated active classroom participation and collaborative dialogue among peers. This finding illustrates that when students are provided with visually rich and well-structured content, they are more inclined to engage, discuss, and reflect critically on the subject matter.

From a pedagogical strategy standpoint, Sanjaya (2014) emphasized that teaching approaches should be aligned with educational process standards to achieve meaningful learning. The lecture method, while still widely used, tends to promote passive reception of information rather than active construction of knowledge. The results of

this study confirm that a shift toward media-supported strategies such as slideshow-based video creates opportunities for more student-centered learning environments. These environments are conducive to developing 21st-century competencies, particularly critical thinking, which is essential in preparing students to face modern challenges.

It is also important to note that the design of the slideshow-based video itself played a vital role in the effectiveness of the intervention. As highlighted by Agung and Wahyuni (2013) in their work on history learning design, the structuring of content and clarity of presentation greatly influence how students process information. In this study, the video was organized in a way that emphasized chronological sequences, cause-and-effect relationships, and visual illustrations of prehistoric life. These elements reduced cognitive load and supported students in making meaningful connections, which are central to critical thinking development.

In addition, the experimental findings resonate with Latipun (2014), who underscored the importance of experimental methods in psychology and education to test the causal relationship between interventions and outcomes. The statistically significant differences found through the t-test in this study confirm that the observed improvement was indeed the result of the intervention

rather than random variation. This strengthens the internal validity of the study and provides empirical support for the broader application of slideshow-based video media in similar educational settings.

Taken together, these findings suggest that integrating slideshow-based video media into history education has multiple benefits: it enhances students' critical thinking skills, encourages active participation, and improves overall learning outcomes. This aligns with Yamin's (2013) assertion that instructional strategies should not only aim at knowledge transmission but also at developing learners' abilities to analyze, evaluate, and apply knowledge in various contexts.

CONCLUSION

Based on the results of this study, it can be concluded that the use of slideshow-based video media has a significant positive effect on students' critical thinking skills in learning the topic of Prehistoric Indonesia at SMA Negeri 1 Cikeusal. Students in the experimental class, who were taught using slideshow-based video media, showed a greater improvement in post-test scores compared to those in the control class, who were taught using conventional lecture-based methods. Statistical analysis confirmed that the difference was significant, thus

reinforcing the effectiveness of slideshow-based video media in history learning.

This finding highlights the importance of integrating innovative learning media into history education. By combining visual and auditory elements, slideshow-based video media engages multiple senses, motivates students to learn, and encourages them to analyze and interpret historical events more critically. The study also supports the constructivist paradigm of learning, which emphasizes active student participation, problem-solving, and the development of higher-order thinking skills.

REFERENCES

- Agung, Leo & Wahyuni. (2013). *Perencanaan Pembelajaran Sejarah*. Yogyakarta: Penerbit Ombak.
- Ainina, I. A. (2014). Pemanfaatan Media Audio Visual Sebagai Sumber Pembelajaran Sejarah. *Indonesia Journal of History Education*, 3(1), 40-45.
- Anggini, I. A. (2015). Pengaruh Media Audio Visual Terhadap Hasil Belajar Biologi Siswa Pada Konsep Sistem Organisasi Kehidupan (Kuasi Eksperimen di SMP Negeri 13 Kota Tangerang Selatan).
- Arikunto, Suharsimi. (2017). *Dasar-Dasar Evaluasi Pembelajaran*. Jakarta: Bumi Aksara.
- Ennis, R. H. (2011). *The Nature of Critical Thinking: An Outline of Critical Thinking Dispositions and Abilities*. Prentice Hall: University of Illinois.
- Hasan, H. (2016). Penggunaan Media Audio Visual terhadap Ketuntasan Belajar IPS Materi Perkembangan Teknologi Produksi Komunikasi, dan Transportasi Pada Siswa Kelas IV SD Negeri 20 Banda Aceh. *Jurnal Pesona Dasar*, 3(4), 22-33.
- Latipun. (2014). *Psikologi Eksperimen (Edisi Kedua)*. Malang: UMM Press.
- Miarso, Y. (2014). *Menyemai Benih Teknologi Pendidikan*. Jakarta: Kencana.
- Ojuwo, E. (2014). Impact of Audio-Visual (AVs) Resource on Teaching and Learning in Some Selected Private Secondary Schools in Makurdi.
- Sanjaya, W. (2014). *Strategi Pembelajaran Berorientasi Standar Proses Pendidikan*. Jakarta: Kencana.
- Sugiyono. (2013). *Metode Penelitian Pendidikan*. Bandung: Alfabeta.
- _____. (2015). *Metode Penelitian Pendidikan*. Bandung: Alfabeta.
- _____. (2016). *Metode Penelitian Pendidikan*. Bandung: Alfabeta.
- Susanto, H. (2014). *Seputar Pembelajaran Sejarah (Isu, Gagasan, dan Strategi Pembelajaran)*. Yogyakarta: Aswaja Pressindo.
- Yamin, M. (2013). *Strategi dan Metode dalam Model Pembelajaran*. Jakarta: Referensi Gunung Persada Press Group.