



The Effect of a Video-Assisted Guided Inquiry Learning Model on Students' Critical Thinking Skills in Sociology

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Abstrak

Rendahnya kemampuan berpikir kritis siswa menjadi salah satu tantangan dalam meningkatkan kualitas pembelajaran, khususnya pada mata pelajaran sosiologi yang menuntut kemampuan menganalisis berbagai fenomena sosial secara kritis dan sistematis. Penelitian ini bertujuan untuk menganalisis pengaruh model pembelajaran inkuiri terbimbing berbantuan media video terhadap kemampuan berpikir kritis siswa pada mata pelajaran sosiologi. Penelitian menggunakan pendekatan kuantitatif dengan metode quasi-experiment dan desain non-equivalent control group. Populasi penelitian adalah seluruh siswa kelas XI SMAN 2 Narmada, dengan sampel yang terdiri atas dua kelas yang ditetapkan sebagai kelas eksperimen dan kelas kontrol melalui teknik simple random sampling. Data kemampuan berpikir kritis dikumpulkan menggunakan instrumen tes berbentuk uraian dan dianalisis melalui analisis statistik deskriptif dan inferensial. Hasil penelitian menunjukkan bahwa kemampuan berpikir kritis siswa pada kelas eksperimen mengalami peningkatan setelah mengikuti pembelajaran menggunakan model inkuiri terbimbing berbantuan media video. Siswa pada kelas eksperimen juga menunjukkan kemampuan berpikir kritis yang lebih baik dibandingkan siswa pada kelas kontrol. Hasil pengujian statistik menunjukkan adanya perbedaan yang signifikan antara kemampuan berpikir kritis siswa sebelum dan setelah diberikan perlakuan serta antara kelas eksperimen dan kelas kontrol. Temuan tersebut menunjukkan bahwa model pembelajaran inkuiri terbimbing berbantuan media video berpengaruh positif dan signifikan terhadap kemampuan berpikir kritis siswa. Kombinasi kegiatan penyelidikan terbimbing dengan penyajian materi melalui video mampu mendorong siswa lebih aktif dalam mengamati, mengidentifikasi masalah, menganalisis informasi, dan menarik kesimpulan secara logis. Dengan demikian, model pembelajaran inkuiri terbimbing berbantuan media video dapat digunakan sebagai alternatif pembelajaran sosiologi untuk mengembangkan kemampuan berpikir kritis siswa.

Kata kunci: inkuiri terbimbing; media video; kemampuan berpikir kritis; pembelajaran sosiologi

Abstract

Students' limited critical thinking skills remain a significant challenge in improving the quality of learning, particularly in sociology, which requires students to critically and systematically analyze various social phenomena. This study aims to examine the effect of a video-assisted guided inquiry learning model on students' critical thinking skills in sociology. The study employed a quantitative approach using a quasi-experimental method with a non-equivalent control group design. The population consisted of eleventh-grade students at SMAN 2 Narmada, with two classes selected as the experimental and control groups through simple random sampling. Data on students' critical thinking skills were collected using essay-based

test instruments and analyzed using descriptive and inferential statistical techniques. The findings revealed that students in the experimental group demonstrated improved critical thinking skills after participating in learning activities using the video-assisted guided inquiry model. Students in the experimental group also demonstrated better critical thinking skills than those in the control group. Statistical analysis confirmed significant differences in students' critical thinking skills before and after the intervention, as well as between the experimental and control groups. These findings indicate that the video-assisted guided inquiry learning model has a positive and significant effect on students' critical thinking skills. The integration of guided inquiry activities and video-based learning encourages students to become more actively engaged in observing, identifying problems, analyzing information, and drawing logical conclusions. Therefore, the video-assisted guided inquiry learning model can serve as an effective alternative instructional approach for developing students' critical thinking skills in sociology learning.

Keywords: guided inquiry; video media; critical thinking skills; sociology learning

Introduction

The low critical thinking ability of students can be a major trigger for problems regarding the quality of learning in the modern education system (Hayail et al., 2024). The lack of contribution from students when participating in learning activities makes a learning activity unable to run as expected. Meanwhile, the results of the study by Khoiriyyah *et al.* (2022) show that most students have not been able to develop critical thinking skills optimally, especially in answering questions that require analysis and reasoning. This is in line with what was stated by Estiningdyah (2025) who revealed that students' low critical thinking skills are caused by a learning process that is still teacher-centered. In addition, research conducted by Fikri, Indrawati and Sari, (2025) states that the lack of use of innovative learning models and attractive learning media also contributes to students' low critical thinking abilities.

The learning process requires very careful and organized preparation so that when learning activities take place they can run effectively to achieve a learning objective. One of the things a teacher can prepare is choosing a learning model carefully tailored to what students need (Solihin et al., 2018). Various studies show that critical thinking skills have an important role in improving the quality of learning and student learning outcomes. Research conducted by Rendi *et al.* (2024) states that critical thinking skills help students understand concepts deeply, make logical decisions, and solve problems systematically. According to Waode, (2023)

the guided inquiry learning model has a better influence on students' critical thinking abilities.

Creative learning media can support the success of the learning process, one of the appropriate teaching media is video media. In line with what was stated by Febriani, Herliani and Akhmad (2024), learning videos can stimulate students to think logically, analyze information from various sources, construct arguments, and solve problems. Video media can also make students more motivated to evaluate facts, ask questions, and solve problems in real contexts (Febriani et al., 2024). Based on the background above, the purpose of this research is to determine whether or not there is an effect of applying the guided inquiry learning model assisted by video media on students' critical thinking abilities in sociology subjects in secondary education at SMAN 2 Narmada.

Research Method

This research uses a quantitative approach in the form of a quasi-experiment. The population in this study were all class XI students at SMAN 2 Narmada with samples taken from two classes as experimental and control classes, so the sampling technique used was simple random sampling. Therefore, the design used by the researchers is a non-equivalent control group with the data collection technique used being the provision of question instruments in the form of essays. Data analysis techniques use statistical analysis in the form of descriptive analysis, paired t-test, and Independent T-test with the help of SPSS 25.0 for windows.

Findings and Discussion

The Findings of this study reveal that the use of the learning method in the experimental class has a positive effect on increasing students' critical thinking abilities.

Table 1 Normality Test Result

Nilai	Shapiro-Wilk		
	Statistic	df	Sig.
Pre_Experiment	.964	31	.363
Post_Experiment	.967	31	.435
Pre_Control	.965	31	.394
Post_Control	.974	31	.635

Based on the normality test results using the Shapiro-Wilk method, all variables have a significance value greater than 0.05. Thus, it can be concluded that the pretest and posttest data in both the experimental and control classes are normally distributed.

Table 2 Descriptive Test Results for Experimental Class Pretest and Posttest Scores

Kategori	Mean	N	Std. Deviation
pre_experiment	66.1613	31	4.98730
post_experiment	78.3548	31	6.06931

Based on Table 2, it is known that the average pretest score is 66.16 and the average posttest score is 78.35. These results indicate an increase in score of 12.19 points after the treatment was given

Table 3 Paired Samples Correlations

Pair	N	Correlation	Sig.
pre_experiment - post_experiment	31	.934	.000

Table 3 shows a correlation value of 0.934 with a significance of 0.000 (< 0.05). This indicates a very strong and significant relationship between the pretest and posttest scores.

Table 4 Paired T-Test Results

Category	t	df	Sig. (2-tailed)
pre_experiment & post_experiment	-29.884	30	.000

The Paired Sample t-Test results show a value of $t = -29.884$ with a significance of

0.000 ($p < 0.05$). Therefore, there is a significant difference between the pretest and posttest results.

Table 5 Descriptive Test Results for Experimental and Control Class Posttest Scores

Class	N	Mean	Std. Deviation
control	31	74.4516	5.12405
experiment	31	78.3548	6.06931

Based on Table 5, it is known that the number of students in the control class and the experimental class is 31 people each. The control class obtained an average score of 74.45, while the experimental class obtained an average score of 78.35. These results show that the average score of students in the experimental class is higher than the control class.

Table 6 Homogeneity Test Results

Variable	Sig.	Ket
Control-experiment	0,679	Homogeneous Data

Based on the homogeneity test results, a significance value of 0.679 was obtained, which is greater than 0.05. This indicates that the data in the control class and the experimental class have homogeneous variances.

Table 7 Independent Samples Test Results

df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
60	.008	-3.90323	1.42662

The research results show that students in the experimental class obtained higher scores compared to students in the control class. The average difference of 3.90 points indicates that the treatment or learning method applied in the experimental class provides better learning outcomes than the learning method in the control class. The resulting significance value is 0.008 ($P\text{-value} < 0.05$). Therefore, it can be concluded that there is a difference between the scores of the experimental and control classes, and the use of the learning method in the experimental class has a positive effect on increasing students' critical thinking abilities.

Based on the results of this study, the independent t-test results obtained show a significance value of $0.008 < 0.05$ with a calculated t value of -2.736 and a t table of 2.1. The Paired Sample t-Test results show a calculated t value of -8.647 with a significance value (2-tailed) of 0.000. Because the significance value is < 0.05 , this indicates that there is an effect of the video media-assisted guided inquiry learning model on the critical thinking abilities of sociology students. Descriptively, these results indicate that the treatment given was able to improve students' thinking skills, and the learning applied in the experimental class provided better learning outcomes than the control class.

These research results strengthen the study by Agustin, Haryanto and Efwindi (2020) which showed that there was a significant difference between the pretest and posttest results after the application of the guided inquiry learning model. These results indicate that students' critical thinking skills have improved after participating in learning with the guided inquiry model. Thus, it can be concluded that the guided inquiry learning model has a significant effect on students' critical thinking abilities. It demonstrates that this learning model is able to encourage students to think more actively, analytically, and systematically in solving problems. Through the guided inquiry stages, students not only obtain knowledge from the teacher but are also trained to identify problems, collect and analyze information, and draw conclusions based on the evidence obtained. This research collaborates the guided inquiry learning model assisted by video media which can encourage students to be critical in learning activities in the classroom. Furthermore, Refki and Rachmayani (2025) stated that the results of descriptive statistical analysis showed that the experimental class had a higher average score for critical thinking skills compared to the control class. This difference in scores indicates that the application of the video media-assisted inquiry learning model has an effect on improving early childhood critical thinking skills. This indicates that a learning process

that involves investigation, observation, and problem-solving activities with the support of video media is able to provide a more meaningful learning experience. Thus, the video media-assisted inquiry learning model can be an effective alternative in developing early childhood critical thinking skills compared to conventional learning.

Furthermore, this research reinforces the research of Wulandari, Sukardi and Masyhuri (2022) that the guided inquiry learning model provides a good contribution to critical thinking skills. With the guided inquiry method, students can play an active role, learning independently to solve a problem so that students' critical thinking skills can improve. Through this model, students are actively involved in the learning process, such as observing, seeking information, analyzing, and drawing conclusions. This active involvement helps students understand the material better and improves their critical thinking skills. In addition, the student-centered learning process encourages them to consider multiple viewpoints and make decisions based on logical analysis.

The results of this study indicate that the experimental class proved to be more effective in improving students' critical thinking abilities because after being given treatment in the learning process, the visible results had differences from the control class or the class that did not receive treatment. Furthermore, the results of the research by Nasution and Wahyuni (2018) state that the guided inquiry learning model can be grouped into good criteria and the critical thinking abilities of students after studying physics using the guided inquiry model are better than the critical thinking abilities of students after using the usual model in high school. Further, Profithasari, Destini and Citra (2024) showed that the implementation of the guided inquiry learning model showed a positive and significant influence on students' critical thinking abilities in elementary school science subjects.

Moreover, this study also strengthens the research results of Eka, Oktaviana and Haryadi (2022) which showed that the

learning video obtained an average validation score of 92.36% in the very valid category, so it was declared suitable for use in the learning process. In addition, teacher and student responses to the use of learning videos obtained an average of 92.12% in the very practical category. From the effectiveness aspect, student posttest results reached 83.33%, which indicates that the developed learning video is effective to use to support the learning process. Furthermore, Eka, Oktaviana and Haryadi (2022) state that the use of video media in learning will increase student motivation in participating in learning because the learning carried out is made as interesting as possible with real videos that can focus students' attention, enabling students to be more receptive to the learning provided by the teacher. This is more fully expressed by Machfud, Isnaini and Bariyyah (2024) who state that the use of interactive multimedia such as video is capable of creating a more engaging and interactive learning environment, thus motivating students to be more active in the learning process. This interactive multimedia provides various visual and audio resources that support understanding. Through this method, students can more easily understand and analyze material, and engage in critical discussion and problem-solving. Based on the description above, it can be concluded that students' critical thinking skills using the guided inquiry learning model assisted by video media makes the learning process more active, interactive, and meaningful so that it can improve students' critical thinking skills. Thus, there are differences in critical thinking abilities between students who participate in learning using the video media-assisted guided inquiry model and students who participate

in learning without using this model. In its application, the guided inquiry learning model encourages students to actively observe, ask questions, collect and analyze information, and draw conclusions based on investigation results. Meanwhile, video media helps visualize learning material making it easier to understand, increasing interest in learning, and facilitating students in analyzing problems critically. The combination of the guided inquiry model and video media is capable of creating a learning experience that supports the development of students' critical thinking abilities.

Conclusion

The conclusion of the research regarding the effect of the video media-assisted guided inquiry learning model on the critical thinking abilities of sociology students is that there is a positive and significant effect from the application of the video media-assisted guided inquiry learning model on students' critical thinking abilities in sociology subjects, such that the learning model applied in the experimental class provides better learning outcomes compared to the control class.

Based on the research findings obtained, this research is expected to broaden scientific insight regarding the video media-assisted guided inquiry learning model on students' critical thinking abilities and can contribute to the field of educational science, especially in learning design, learning evaluation, and learning strategy courses. The results of this study can be used as a source of information for future researchers and teachers in choosing and applying learning models to improve students' critical thinking abilities in sociology learning.

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