

The Effect Of The Cooperative Script Learning Model On The Critical Thinking Abilities Of Grade XI Economics Students At SMAN 1 Samalanga

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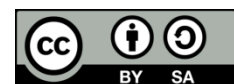
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ABSTRACT

Critical thinking ability is an intellectual process of seeking, analyzing, and evaluating information from observations or experiences, then using it to act and formulate a conclusion. The low critical thinking ability of students is an educational problem; One effort to improve critical thinking ability is by choosing the right learning model. This research aims to determine the effect of the Cooperative Script learning model on students' critical thinking skills in 11th-grade Economics at SMAN 1 Samalanga. The research method used was quasi-experimental with a nonequivalent control group design. The sample consisted of two classes: an experimental class using the Cooperative Script model and a control class using conventional teaching methods. The research instrument included pretest and posttest questions to measure students' critical thinking skills. The results showed a significant difference between the posttest scores of the experimental and control classes. Students in the experimental class demonstrated higher improvement in critical thinking skills compared to those in the control class. Thus, the Cooperative Script learning model is proven effective in enhancing students' critical thinking skills in Economics subjects.

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1. Introduction

Education plays a vital role in shaping a person's personality and helping them understand the world around them. Law Number 20 of 2003 defines education as a conscious and planned effort to create a learning atmosphere and process so that students actively develop their potential to possess spiritual and religious strength, self-control, personality, intelligence, noble character, and the skills needed by themselves, society, the nation, and the state. According to Oemar Malik in Rahmat Hidayat (2019: 23), education is a process of influencing students to adapt as well as possible to their environment, thereby creating changes within themselves that enable them to function effectively in society. Education aims to build a generation that is intelligent, skilled, and has a virtuous character.

Furthermore, education also encourages change for the better from generation to generation (Muhammad Yusuf Ahmad, Siti Nurjannah, 2016: 1-17).

In the 21st century, education has become increasingly important to ensure that students have learning and innovation skills, information and media technology skills, and life skills for work and survival (Ariansyah 2017 Ariff: 2-3). Critical skills in the 21st century are still related to the four pillars of life: learning to know, learning to act, learning to be yourself, and learning to live together. These four principles include specific skills that must be strengthened in learning activities such as critical thinking skills, problem solving, metacognition, communication skills, collaboration, innovation and creativity, information literacy, and various other skills (Mubiar Agustin & Yoga Adi Pratama: 45-47).

Critical thinking skills are crucial to develop today and have become a primary goal in education. Education is a means of preparing students with analytical, problem-solving, and critical thinking skills to enter the workforce and become a productive workforce capable of exchanging knowledge, driving progress, and building social welfare (Mubiar Agustin & Yoga Adi Pratama: 48).

Critical thinking skills can be defined as the ability to think logically, reflectively, and productively, applied in assessing situations to make sound judgments and decisions. Critical thinking means reflecting deeply on problems, keeping an open mind to different approaches and perspectives, not blindly believing information coming from various sources (oral or written), and thinking reflectively rather than simply accepting ideas from outside without significant understanding and evaluation. Critical thinking skills help students know how to apply concepts to real-life situations to improve the quality of their understanding and their ability to apply existing knowledge to new situations (Zivkovil, 2016:102-108).

Critical thinking skills are highly influential in economics learning, particularly in the ability to make decisions, draw conclusions, and collaborate effectively. In economics learning, teachers can help develop students' critical thinking skills by designing appropriate learning strategies. The selection of learning models and approaches is a key factor in student success. A learning process that utilizes appropriate learning models prevents students from getting bored and encourages them to delve deeper into the material being studied, thereby fostering their critical thinking skills. Therefore, teachers seek engaging learning models that engage students actively and enable them to develop their abilities. One suitable learning model for enhancing students' critical thinking skills is the Cooperative Script learning model.

The Cooperative Script model is a learning model that regulates interactions between students and other students. It is also a learning model that requires students to work in pairs or groups to verbally summarize parts of the learning material. This learning model develops students' understanding when summarizing and summarizing the material. The Cooperative Script learning model is useful for training students to reconstruct their existing knowledge. In the Cooperative Script learning model, students are able to communicate and interact well with their friends in class, which can later achieve a learning objective that has been set by the teacher, with the teacher only acting as a facilitator for student learning activities (Hamiyah & Lisnawati, 2019:53).

Critical thinking skills are a crucial competency for students, especially in facing the challenges of the globalization era. These skills enable individuals to analyze information, evaluate arguments, and make rational decisions. Economics, as a subject closely related to everyday life, places significant demands on students' critical thinking skills.

In Indonesia, students' critical thinking skills remain relatively low. This is confirmed by the results of the 2018 Programme for International Student Assessment (PISA) survey conducted by the Organisation for Economic Cooperation and Development (OECD). The survey evaluated students' reading, mathematics, and science performance across various countries.

These results reflect that the majority of students in Indonesia are unable to answer questions requiring higher-order thinking skills, including critical thinking. One reason for this low ability is a learning approach that is still dominated by memorization and answering questions whose answers are easily found in textbooks. As a result, students tend to copy answers without engaging in critical analysis.

Students' critical thinking skills can be measured by giving them assignments requiring in-depth analysis. This aligns with Anderson's revised Bloom's Taxonomy, which states that critical thinking skills are reflected in higher-order cognitive domains, namely at levels C4 (analyzing), C5 (evaluating), and C6 (creating) (Mauliana, W. et al., 2020: 69).

However, initial observations indicate that the critical thinking skills of eleventh-grade students at SMAN 1 Samalanga still need to be improved. This situation can occur for several reasons, such as a lack of variety in learning models and limited opportunities for students to discuss and exchange ideas. Furthermore, teachers are often unable to implement diverse learning models. This is because almost all learning processes still use conventional methods, such as lectures. Although some teachers try to apply a variety of methods in the learning process, the result is a one-way, teacher-centered learning process, where the teacher only delivers material in front of the class, while students tend to be passive and simply listen. Many students feel bored or even busy playing by themselves and are less interested in learning. The lack of interesting learning processes makes students less able to maximize their critical thinking abilities, as evidenced by students' lack of ability to understand the learning material in detail and students' lack of courage in expressing their opinions.

Based on this situation, it can hinder students' understanding in understanding the material given. This situation also has an impact on students' critical thinking skills which are still lacking in finding facts in learning, to measure the extent to which students have critical thinking skills, teachers must use appropriate learning models, so to foster students' critical thinking skills, it is necessary to apply appropriate learning models according to the learning material being taught so that students can develop their critical thinking skills.

The Cooperative Script learning model was chosen because it is considered to have the potential to address these issues. This model emphasizes cooperation among students in completing assignments, thereby training students in critical thinking, communication, and

collaboration. Furthermore, Cooperative Script can also increase student motivation because they learn in a fun and supportive environment.

Based on the above phenomenon, the researcher is interested in conducting research at State Senior High School 1 Samalanga with the title: "The Effect of the Cooperative Script Learning Model on the Critical Thinking Skills of Class XI Economics Students at SMAN 1 Samalanga".

2. Research Methodology

This type of research is a quantitative research with a quasi-experimental approach (Quasi Experiment Method). The quasi-experimental approach is a research approach that aims to show the cause-and-effect relationship between independent and dependent variables, this approach is also known as a quasi-experiment. Quasi-experiments use all subjects in the study group (intact group) to be given treatment , rather than using subjects taken at random, (Sugiyono, 2016: 72).

3. Result and Discussion

Differences in Students' Critical Thinking Abilities in the Experimental Class

The experimental class was given treatment using the cooperative script learning model . Before the treatment, the class was given an initial test, also known as a pre-test , and a final test, also known as a post-test. Pre-test data was used to measure students' cognitive abilities to determine their prior knowledge of the material being taught. Post-test data was collected after the learning process or after the treatment was administered.

Based on calculations statistics, the results can be seen in the table below:

Table 1. Pre-test and Post-test Results Data for the Experimental Class

Information	Pre-Test	Post-Test	Difference
Minimum	5	40	35
Maximum	60	100	40
Number of students	37	37	-
Average	28.11	77.03	48.92

Source: SPSS Processed Data

Based on the data in Table 4.3, it can be seen that there is a significant difference between the pre-test and post-test results in the experimental class. During the pre-test , the average score obtained by students was 28.11 out of a total of 37 students. Meanwhile, during the post-test , the average score increased to 77.03 with the same number of students. Thus, there is a difference in the average score of 48.92 points between the pre-test and post-test results. This shows that there is an increase in students' critical thinking skills after being given treatment through the application of the Cooperative Script learning model.

Differences in Students' Critical Thinking Abilities in the Control Class (Conventional)

Pre-tests and post-tests were also administered to the control class. These tests aimed to determine differences in students' critical thinking skills before and after the treatment. In this class, the treatment was delivered using conventional learning models such as lectures, Q&A sessions, and notebook notes. The pre-test and post-test results for the control class are shown in the table below.

Table 2. Pre-Test and Post-Test Results Data for the Control Class

Information	Pre-Test	Post-Test	Difference
Minimum	10	20	10
Maximum	80	100	20
Number of students	35	35	-
Average	40.43	60.14	19.71

Source: SPSS Processed Data

Based on the data in the table above, it can be seen that there is a difference in the average scores between the pre-test and post-test results. The average score in the pre-test was 40.43, while the average score in the post-test increased to 60.14. Thus, there is an average difference of 19.71 points. This data indicates an increase in learning outcomes after being given treatment, although the increase is not as large as that experienced in the experimental class.

Descriptive N-Gain of Control Class and Experimental Class

Based on cognitive ability calculations The post-test and pre-test of the control and experimental classes obtained N-Gain results consisting of N (number of tests), mean, and standard deviation. Judging from the results of the student ability test, it can be seen that the average N-Gain of the experimental class is more prominent compared to the average N-Gain of the control class. The data from the N-Gain calculation results are as follows: for the experimental class and control class are as follows:

Table 3. N-Gain Results of Control Class and Experimental Class

Class	Information	N	Mean	Standard Deviation
Experiment	Pre-test	37	28.11	13,660
	Post test	37	77.03	14,975
	N-Gain	37	70.06	17,755
Control	Pre-test	35	40.43	17,505
	Post test	35	60.14	19,759
	N-Gain	35	34.95	28,186

Source: SPSS Processed Data

Based on Table 4.5, it can be concluded that there is a significant difference in critical thinking skills between students in the experimental class and the control class. The average

N-Gain value in the experimental class was 70.06, while in the control class it was only 34.95. The difference in N-Gain values indicates that the increase in students' critical thinking skills in the experimental class was much higher compared to the control class. This indicates that the use of the Cooperative Script learning model has a greater positive influence on improving students' critical thinking skills compared to the conventional learning model used in the control class.

Hypothesis Testing

Hypothesis testing is carried out during the pre-test and post-test. normally distributed . In this test, information was obtained that student learning outcomes were normally distributed and student abilities in both groups were homogeneous.

To determine whether or not there is an influence of the use of the cooperative script learning model on the critical thinking skills of class XI students of SMAN 1 Samalanga using the independent sample t-test.

This test was carried out with the help of the SPSS 22 program. The hypothesis to be tested has the following requirements:

Ha : The use of the cooperative script learning model has an effect on students' critical thinking levels.

Ho : The use of the cooperative script learning model has no effect on students' critical thinking levels.

The basis for making the decision is as follows:

- If the Sig value (2-tailed) > 0.05 , then Ho is accepted and Ha is rejected.
- If the Sig value (2-tailed) < 0.05 , then Ho is rejected and Ha is accepted.

the independent sample t-test analysis on the post-test values can be seen in the table below:

Table 4. Results of Critical Thinking Ability Hypothesis Testing

Test	T	Sig (2-tailed)	A	Information
Independent Samples t-test	-28,937	0,000	0.05	Influential
	-6,906	0,000	0.05	Influential

Source: SPSS Processed Data

From table 4.7 it can be seen that the results of the independent sample t-test test of the student's post-test score are known to have a sig. (2-tailed) value of 0.000. Based on the decision-making criteria of $0.000 < 0.05$, Ho is rejected and Ha is accepted. So it can be concluded that there is an influence on the use of the Cooperative Script learning model on the Critical Thinking Skills of Class X I Economics Students of SMAN 1 Samalanga .

Discussion of Research Results

the Cooperative Script Learning Model on Thinking Skills Student criticism

This research was conducted by involving two classes, namely class XI-1 and XI-5, where class XI-1 consists of 35 students and class XI-5 consists of 37 students. Class XI-5 was

designated as an experimental class which was given treatment in the form of implementing the Cooperative Script learning model, while class XI-1 was used as a control class which used a conventional learning model in the form of a lecture method .

The first meeting was held on Thursday, May 22, 2025, during the first and second hours of teaching and learning activities, namely 07.45 to 09.15 WIB. The researcher began the activity by giving an opening greeting to students and introducing himself as a substitute teacher, followed by reading student attendance. To create a conducive and enjoyable classroom atmosphere, the researcher held an ice-breaking activity in the form of light guessing games. This activity aims to raise enthusiasm and focus students' attention so that they are better prepared to follow the learning process. After that, students were given a pretest to measure their initial abilities before being given the learning treatment. After the pretest, the researcher conveyed the learning objectives to be achieved in the meeting, namely understanding the concept of inflation, types of inflation, and factors causing inflation. Then the researcher divided students into pairs (two) to carry out the Cooperative Script activity.

Entering the main activity, the researcher distributed a summary of the material to all students. The material covered the definition of inflation and its types. Students were asked to read and understand the material independently, then create a summary based on their understanding. Next, students were divided into pairs to carry out a Cooperative Script activity. At this stage, the student acting as the speaker was asked to convey the summary verbally to their partner. Meanwhile, the student acting as the listener listened attentively, providing corrections if there was any inaccurate information, and adding any sections deemed incomplete. After that, the two students switched roles and repeated the same process. After all pairs completed the two-way discussion activity, the researcher facilitated a clarification session and class discussion. In this session, students were given the opportunity to ask questions or respond to the material that had been learned, while the teacher provided explanations and reinforced key points in the lesson. In closing, the teacher and students jointly formulated conclusions from the day's learning outcomes. The researcher also provided a brief reflection on the importance of understanding inflation as an economic phenomenon closely related to everyday life.

Furthermore, the second meeting was held on Friday, May 23, 2025, during the 3rd and 4th hours of learning, namely at 09.15 to 10.45 WIB. The activity began with greetings, checking student attendance, and providing a short ice breaker to maintain a pleasant learning atmosphere and motivate students to actively participate in the learning process. At this meeting, the researcher provided material on the impact and how to overcome inflation, and after that students read and made individual summaries. Next, students were divided into the same pairs as before and continued the learning activities using the Cooperative Script model. Students took turns being speakers and listeners in discussing the summary of the advanced material they had read. This process was again carried out actively, with an emphasis on listening skills, providing feedback, and improving the content of the summary collaboratively.

To deepen students' understanding of the material, researchers distributed follow-up Student Worksheets (LKPD) containing analytical questions related to the impact of inflation on society, such as its impact on purchasing power, producers, and the role of government. In addition, students were asked to identify and evaluate inflation control policies, both through monetary and fiscal approaches. The LKPDs were completed in pairs and presented to the class. Each pair had the opportunity to present their discussion results, while other pairs were given space to respond or ask questions. This activity took place in turns and was dynamic. Class discussions were active, and students showed enthusiasm and high participation in expressing opinions, answering questions, and responding to other groups' presentations.

As a final series of learning activities, the researcher gave a posttest to students to measure the extent to which their abilities had developed after participating in learning with the Cooperative Script model. Based on the posttest results, an average score of 77.03 was obtained, which showed a significant increase compared to the average pretest score of 28.11 with an average difference of 48.90 points. This increase of 48.92 points reflects a real development in students' conceptual understanding of inflation. In addition, these results also show that the Cooperative Script learning model is effective in improving students' critical thinking skills, as well as their ability to analyze economic problems, especially those related to the phenomenon of inflation and it can be concluded that the application of the Cooperative Script learning model provides a positive contribution to students' critical thinking skills in the experimental class, both in terms of conceptual knowledge and higher-order thinking skills.

The implementation of learning in the control class was carried out without using the Cooperative Script learning model, but rather with a conventional teacher-centered approach. The first meeting was held on Thursday, April 22, 2025, during the last hour of learning, namely at 12:10 to 1:30 PM WIB. The learning activity began with an opening greeting and self-introduction of the researcher as a substitute teacher. After that, students were given pre-test questions to determine their initial abilities before receiving the learning. To create a pleasant learning atmosphere, the researcher inserted an ice-breaking activity in the form of light questions about the phenomenon of rising prices of goods that students often encounter in everyday life. Next, the researcher conveyed the learning objectives, namely understanding the meaning of inflation, identifying types of inflation based on their severity, and explaining the main causes of inflation.

The researcher then delivered the learning material using a lecture method with the aid of a whiteboard and textbook. Students took notes on key points presented by the teacher, such as the definition of inflation, the types of inflation, and the factors causing inflation. In this meeting, the learning process was passive, with students simply listening to the explanation and taking notes, without any group discussions or in-depth two-way interaction. However, the researcher still gave students the opportunity to ask questions if there were any parts of the material they did not understand. The lesson concluded with the teacher reaffirming key points and announcing that the worksheets would be distributed and completed at the next meeting.

The second meeting in the control class was held on Friday, May 23, 2025 in the 3rd and 4th hours of learning, namely 09.15 to 10.45 WIB. The activity began with an opening greeting, attendance check, and a short icebreaker to build student learning enthusiasm. Next, the researcher distributed Student Worksheets (LKPD) containing questions related to inflation material. This LKPD focused on the analysis of types of inflation, causes of inflation, the impact of inflation on consumers, producers, and the government, as well as government policies in addressing inflation through monetary and fiscal approaches. Students were asked to work on the LKPD independently first, then had a limited discussion with their deskmates to check each other's answers. Several students were then asked to present the results of their work in front of the class, and the researcher provided reinforcement and clarification for incorrect answers.

After the student worksheet discussion was completed, the researcher administered a posttest to all students to gauge their understanding after participating in two sessions using a conventional learning approach. The posttest was administered individually, without discussion or the use of learning aids. After all students completed the posttest, the researcher concluded the learning activity by presenting a summary of the material discussed and motivating students to maintain their enthusiasm for understanding economic concepts.

Based on the evaluation results, it was found that the average pretest score for students in the control class was 40.43, while the average posttest score increased to 60.14. This difference of 19.71 points indicates an improvement in student learning outcomes after receiving conventional learning. However, this increase is relatively low when compared to the results achieved by the experimental class. This indicates that learning with a conventional approach is less than optimal in improving students' conceptual understanding and critical thinking skills regarding economics material, especially the topic of inflation.

Based on the average post-test scores of both classes, it can be seen that the average post-test score of the experimental class is higher than the average post-test score of the control class. Using the Independent sample t-test, it is known that H_0 is rejected at a significance level of $\alpha = 0.05$ and the Sig value (2-tailed) is 0.000. Thus, the value obtained is $\text{Sig} < \alpha$, namely $0.000 < 0.05$. This means that H_a is accepted and H_0 is rejected, which means there is a significant influence between the use of cooperative script learning model on critical thinking skills of class XI students in economics subjects at SMAN 1 Samalanga.

The results of this study align with and support several previous studies demonstrating the effectiveness of the Cooperative Script learning model in improving students' critical thinking skills. Research conducted by Supriyadi and Lestari (2022) at SMAN 3 Bandung showed that implementing the Cooperative Script model significantly improved student learning outcomes and participation in critical discussion activities. In the study, the percentage of students achieving the "high" category in the critical thinking ability indicator increased from 28% to 76% after two cycles of model implementation. The researchers concluded that Cooperative Script is effective in developing critical thinking skills because students are actively involved in evaluating, responding to, and correcting the information presented by their learning partners.

Furthermore, according to Putra and Rahmawati (2023), a quasi-experimental study conducted on two eleventh-grade classes at a public high school in West Sumatra also showed similar results. The average score increase between pretest and posttest in the class using the Cooperative Script model was 45.2 points, significantly higher than the class using the lecture method, which only experienced an increase of 21.6 points. These results indicate that Cooperative Script not only improves understanding of economic concepts but also effectively develops students' critical thinking skills through clarification, discussion, and pair argumentation.

Another study that supports these results was also conducted by Kurniawan (2023) in his study entitled "Active Learning Strategy: Cooperative Script and Its Implications for Critical Thinking Skills". In this study, Kurniawan applied the Cooperative Script model to economics learning for grade XI and obtained results that the average posttest score of students in the experimental class reached 81.3, while in the control class it was only 67.5. Kurniawan concluded that alternating activities as speakers and listeners in learning with the Cooperative Script model can significantly increase students' cognitive engagement, thus having a positive impact on the development of critical thinking skills.

Based on the results of previous research, it can be concluded that the Cooperative Script learning model significantly contributes to improving students' critical thinking skills. This is because this model encourages students to actively process information, communicate effectively with their learning partners, and evaluate and revise their understanding collaboratively. Therefore, the findings of this study are reinforced by empirical evidence presented by previous researchers.

4. Conclusion

Based on the results of research conducted at SMAN 1 Samalanga on grade XI students of Economics, it can be concluded that the Cooperative Script learning model has a significant effect on improving students' critical thinking skills. This is proven through the results of statistical tests using the Independent Sample t-Test test. The post-test value of students is known to be sig (2-tailed) in the experimental class is 0.000. Based on the decision-making criteria of $0.000 < 0.05$, H_0 is rejected and H_a is accepted. Thus, there is a significant difference between the post-test results of students in the experimental class using the Cooperative Script model compared to the control class using conventional learning methods.

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