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Improving critical thinking through OIDDE learning model on batik material in Class VIII-J SMPN 03 Batu

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ABSTRACT

Learning batik can enhance students' critical thinking skills, but many students still struggle to describe, analyze, and solve problems effectively, which hinders the achievement of learning objectives. This study aims to improve the learning process and critical thinking of students through the OIDDE learning model that focuses on batik content. This study uses classroom action research, the Kemmis and McTaggart model. The study was conducted starting with pre-action, cycle I, and cycle II. Each cycle includes the planning, action, observation, and reflection stages. The research subjects were 32 students. Data were collected through interviews, observations, questionnaires, tests, and documentation, and analyzed using qualitative descriptive methods supported by quantitative data. The results of the study showed that (1) the learning process was carried out according to the syntax of the OIDDE learning model, there were improvements made in cycle II based on reflections from cycle I, and (2) students' critical thinking increased significantly, from 28.1% in the pre-action stage to 65.6% in cycle I, and 83.75% in cycle II. These results indicate that the OIDDE model is effective in improving students' critical thinking skills in learning batik material.

Kata kunci: *OIDDE model, critical thinking, fine arts, batik material, classroom action research*

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INTRODUCTION

The data for the 2022 Programme for International Student Assessment (PISA) published by the Organization for Economic Co-Operation and Development (OECD) shows that in Indonesia, students still have difficulty in developing critical thinking (Sariyanto et al., 2025). According to Sabri et al. (2019), engaging in fine arts education can enhance critical and creative thinking, as well as communication and collaboration abilities, by employing local content or socio-cultural issues as subjects for discussion. One of the relevant materials to develop critical thinking skills is batik material.

Given the importance of maintaining and preserving cultural heritage, batik is not just a patterned cloth but a manifestation of cultural wealth in each batik-making area (Qomariyah et al., 2023). Each type and motif has a deep philosophical meaning (Supriono, 2024). Batik is a traditional art that should be preserved through two concepts, namely (1) preservation, which is an effort to maintain, protect, and care for existing heritage, and (2) conservation, which is cultural preservation and value utilization (Iriaji et al., 2022). An example of applying this preservation concept is utilizing the role and function of education to introduce batik to students (Miranti et al., 2021). Through the role and function of education, batik can be used as teaching material in developing designs and innovations (Ratnawati et al., 2024). According to Pristiwanti et al. (2024), batik serves as a teaching tool or discussion topic that can enhance students' critical thinking abilities and their motivation.

Given the need to cultivate critical thinking abilities, this study used batik material because of several fundamental considerations. First, batik is an Indonesian cultural heritage that has many types and motifs that can provide opportunities for students to analyze and identify, as well as problem-solving, so as to stimulate critical thinking skills, creativity, and collaboration (Pristiwanti et al., 2024). Second, batik material is one part of local content learning. Batik material has a strong relevance to

cultural preservation efforts as well as the development of national identity through education (Ulumuddin et al., 2014).

Batik motifs from Batu City are visual representations that not only display the identity of the region and its culture, but also contain aesthetic and philosophical values that can be integrated into fine arts learning (Klimentin et al., 2021). Based on this, this research was conducted at SMPN 3 Batu because the school is located in a tourist area and is rich in cultural traditions and potential local wisdom. In addition, initial observations showed that this school has the potential to develop fine arts learning that has not been fully optimized.

Based on the results of documentation and observations on February 19-June 14, 2024, October 4-18, 2024 and April 29, 2025 in class VIII-J SMPN 3 Batu in the subject of fine arts obtained: (1) evaluation results on the previous material show that out of 32 students there are only 13 students who meet the Minimum Completeness Criteria (KKM), (2) teachers during the teaching and learning process have a tendency to be more active in delivering material and students record what the teacher explains so that learning activities do not develop students' critical thinking skills, (3) learning activities involve discussion, (4) learning achievement indicators have not been fully met because when students are asked to analyze or provide solutions to problems that are environmental and daily life, most students' answers are less critical, and minimal arguments that contain facts or theories.

Overcoming the above problems, an approach is needed to increase student learning participation and overcome obstacles in developing critical thinking skills. The OIDDE learning model can be one of the more effective solutions compared to other conventional models (Fatma, 2025). The OIDDE learning model has systematic, reflective learning characteristics and focuses on the active involvement of students to think critically (Husamah et al., 2018). According to Sartina et al. (2022) show that the OIDDE learning model can greatly enhance students' academic performance and critical thinking abilities. Therefore, the OIDDE learning model is anticipated to offer a more comprehensive and exploratory framework, enabling students to recognize, examine, and infer conclusions regarding the concept of batik and its diverse motifs.

According to Hudha (2020), the OIDDE learning model is both an acronym and a framework, standing for orientation, identity, discussion, decision, and engaget in behavior. It is a learning model aimed at enhancing student participation in problem-solving tasks. At the orientation stage, students are directed to problem-solving through the material presented. In the identification stage, students identify or analyze problems individually. At the discussion stage, students are formed into small groups to discuss the results of identification and present in front of the class. In the decision stage, students make decisions and conclude. At the engage in behavior stage, students write and behave according to ethical decisions.

The OIDDE learning model is the result of a combination of three learning models, namely the social learning model proposed by Joyce & Weil, the behavioral systems learning model, and the Tri Prakoro learning model (Fitria, 2022). According to Husamah et al. (2018), the benefits of the OIDDE learning model include enhanced critical thinking abilities, positive ethical perspectives, and improved student learning results. In line with (Karunia, 2023), the benefits of the OIDDE framework, namely (1) are student-centered learning; (2) encourage students to understand the material in depth; 3) discussion activities are more directed; (4) students actively interact with group friends; and (5) develop ethical attitudes. As for the shortcomings of the OIDDE model, namely (1) it takes quite a long time; (2) requires adjustment; (3) full control of student activities; and (4) teachers must pay attention to the time in each syntax (Husamah et al., 2018).

Several studies, such as those conducted by Lasmana et al. (2020), Saputri et al. (2025), and Karunia (2023), highlighted that the OIDDE learning model was identified as a remedy for students' deficiencies in critical thinking and ethical attitudes. Their findings indicate that implementing the OIDDE learning model notably enhances students' critical thinking abilities, teamwork skills, ethical behaviors, and academic performance concerning the theme. This indicates that students have a strong and deep understanding of the material, which has a positive impact on their knowledge.

The OIDDE learning model has demonstrated promise in enhancing critical thinking abilities, this study and previous studies still have some differences, namely (1) learning materials, previous research focused on science and technology subjects, such as mathematics, physics, biology and chemistry; (2) education level, the subjects and objects of research are generally at the high school (SMA) and university levels; (3) research methods, most previous studies used experimental research

methods. This study aims to implement the OIDDE learning model in junior high schools by utilizing the classroom action research approach, specifically focusing on batik topics.

Given these background issues, researchers need to examine the implementation of the OIDDE learning model to understand its learning processes and enhance critical thinking skills, particularly concerning batik material in junior high schools, which has not been extensively explored in prior studies. Therefore, this research aims to serve as a reference for fine arts teaching methods, especially regarding batik content that seeks to foster students' critical thinking abilities. Furthermore, this study is anticipated to promote an engaging learning environment and facilitate students' ability to identify, analyze, and resolve challenges in fine arts education.

METHOD

This research used classroom action research. Wijaya & Syahrum (2013) explained that classroom action research is a type of reflective inquiry performed by educators to enhance learning methods and elevate teaching standards by actively engaging in an ongoing process of improvement. In this study, classroom action research was chosen because of its relevance, practicality, and direct impact on improving the quality of learning, while strengthening the role of teachers as practitioners who are able to innovate data-based education.

This method uses the (Kemmis & McTaggart, 2014). The model was implemented starting with the pre-action phase, followed by cycle I and cycle II. Each cycle consists of four stages: planning, action, observation, and reflection, as illustrated in Figure 1.

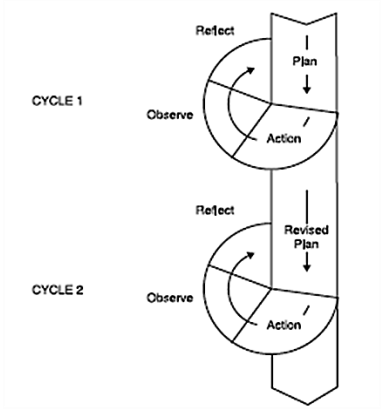

Figure 1. Cycle in Classroom Action Research (Amirin, 2018)

The research procedure consisted of cycle I and cycle II. This research started from the pre-action stage to observe the learning process and the application of the learning model that the teacher applied in the classroom. During the pre-action, students' critical thinking skills on batik material were evaluated using questionnaire data, observations, interviews, tests, and documentation.

Cycle I at the planning stage, Scholars, along with educators, collaborate to develop learning tools such as lesson plans, teaching materials, student worksheets, educational media, and assessments. In the action stage, researchers implemented the OIIDDE learning model in the classroom. The observation phase was conducted to monitor student engagement in learning activities and assess teacher effectiveness during the instructional process. In the reflection stage, researchers, together with teachers and peers, analyze, evaluate, and conclude data as a basis for planning improvements for implementation in cycle II.

Cycle II planning stage, researchers, together with teachers, rearranged lesson plans, teaching materials, Learner Worksheets, media, and assessments based on the results of the first cycle reflection. In the action phase, the researcher implemented the learning process utilizing the OIDDE learning model, which was refined based on the enhancements derived from the earlier cycle. The observation stage observed student learning activities and teacher performance during the learning process. In the reflection stage, researchers, together with teachers and peers, analyze, evaluate, and conclude the results of actions from cycle I and cycle II to determine whether the actions of cycle I and cycle II have been achieved or not.

The research was conducted at SMPN 03 Batu in the 2024/2025 school year. The research subjects were class VIII-J students, totaling 32 students: 18 boys and 14 girls. This study was carried out in two cycles. Each cycle includes two meetings, with one meeting lasting 3 hours of instruction (3x45 minutes). The material discussed in cycle I was batik motifs and efforts to improve the quality of motifs, while in cycle II, the material discussed was the history of batik and efforts to preserve batik.

The methods employed for gathering data consist of: interviews, observations, documentation, questionnaires, and tests. Interviews with students and teachers provided perceptions, experiences, and views on the effectiveness of the model used. Observation was used to observe teacher and student activities. Documentation is in the form of visual recordings, such as videos or photos, during the learning process. Questionnaires were created to assess the effectiveness of evaluating students' learning activities and to offer valuable feedback for enhancement in the subsequent phase. Tests in the form of essay questions were given at the pre-action stage, cycle I, and cycle II. Qualitative data obtained from interviews, observations, and documentation are used to provide input as an evaluation of improvements and compare the results of the application before and after using the OIDDE learning model. While quantitative data obtained from questionnaire data and tests to measure the improvement of students' critical thinking skills at the pre-action stage, cycle I, and cycle II, are used as evaluation material to make decisions regarding further action improvements.

This research uses qualitative descriptive data analysis. The data used is not only qualitative, but also supported by quantitative data. Qualitative information in this research consists of data gathered from interviews, observations, and documentation. These data serve to strengthen the data in more depth about the responses of teachers and students to the application of the OIDDE model. Quantitative data represented by the percentage scores from the questionnaire and the percentage of completion for the critical thinking skills test were analyzed using the formula below:

$$\text{Percentage} = \frac{total\ score\ obtained}{\text{maximum total score}} \text{ x } 100\%$$

Table 1. Critical Thinking Activity Assessment Criteria

Questionnaire success rate	Description
81%-100%	Very good
61%-80%	Good
41-60%	Medium
21%-40%	Poor
0%-20%	Very Bad

Source: (Widoyoko, 2012)

The formula below was used to analyze the test data:

$$\text{Percentage of completeness} = \frac{number\ of\ students\ who\ completed}{maximum\ number\ of\ students} \text{ x } 100\%$$

The effectiveness of the research action is contingent upon the enhancement of the critical thinking ability test's completeness in meeting the predetermined criteria of at least 75%, measured by the percentage differences observed from the pre-action phase, Cycle I, and Cycle II. The criteria for assessing the success of the action are detailed in Table 2.

Table 2. Criteria for the Success Level of Action

Success Rate (%)	Description
≥ 86%	Very high
76-85%	High
60-75%	Medium
55-59%	Low
≤ 54%	Very low

Source: (Ngalim, 2004)

FINDINGS AND DISCUSSION

Findings

Pre-action Findings

In the pre-action stage, the researcher first made initial observations on the application of the Problem-Based Learning (PBL) model carried out by the fine arts teacher in the implementation of learning in class VIII-J SMPN 03 Batu. Researchers studied, analyzed, and reviewed the learning process to gain an initial understanding of students' learning in fine arts batik and their critical thinking abilities. The results obtained from the application of the PBL model can be seen in Figure 2.

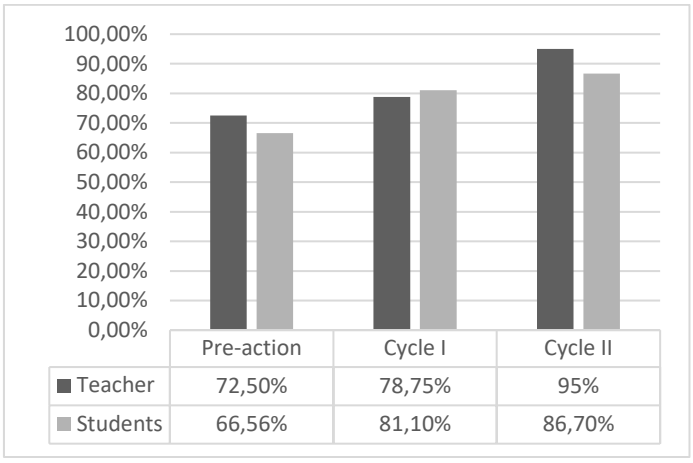

Figure 2. Results of Critical Thinking Activity Questionnaire

According to the information presented, the student learning process in developing critical thinking skills at pre-action shows an achievement of 72.5% for teachers and 66.56% for students. These achievements are both in the good category. The learning process using the PBL learning model shows effectiveness in students' critical thinking activities, but the results of observations reveal that students still have difficulty with critical thinking skills. This finding aligns with the results of students' critical thinking skills in the pre-action stage.

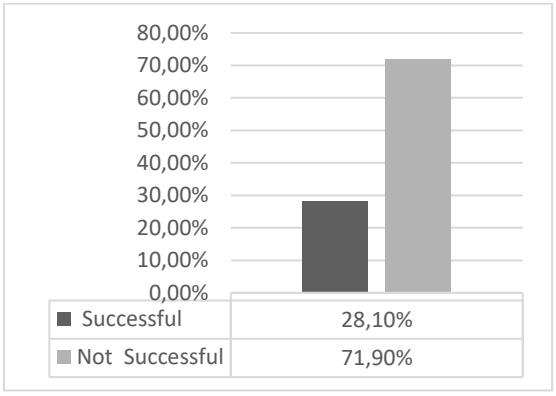

Figure 3. Pre-action Critical Thinking Ability Assessment Results

Based on the findings in Figure 3, it is evident that among the 32 students assessed for critical thinking skills, only 9 students, accounting for 28.1%, have achieved the minimum completion criteria (KKM). In contrast, 23 students, representing 71.9%, have failed to meet the KKM. These results indicate that although the learning model carried out by the teacher has been carried out with appropriate and good procedures, it has not been fully effective and optimal in helping students achieve learning objectives and develop critical thinking skills. According to these findings, educators and researchers are exploring learning methods or strategies that better accommodate the needs and learning preferences of students to enhance critical thinking abilities regarding batik material. These results were used as initial information to make improvements and became the reason for applying the OIDDE model.

Cycle I Findings

Based on the previous findings in the pre-action, the research made improvement efforts by applying the OIDDE model in cycle I. The OIDDE model was chosen because of the systematic and reflective characteristics of the model, so as to encourage learning participation and critical thinking skills. Research in cycle I starts from the planning stage. At this point, the preparation of learning devices is carried out, including: Learning Implementation Plan, student worksheets, teaching materials, and research assessments. This preparation aims to make the research action run well and according to plan.

The initial cycle action phase involved two meetings. The teaching process was implemented by the researcher, acting as a model educator, and utilizing the OIDDE learning model, which was aligned with the previously developed lesson plan. The steps for implementing the OIDDE model are as follows.

Table 3. Steps for Implementing the OIDDE Model Cycle I

Photo	Stage	Teacher Activity	Student Activity
	*Orientation*	The teacher explains the material on the concept of batik motifs, types of motifs, batik regions, philosophy, and efforts to improve the quality of motifs. Followed by presenting the problem, namely the characteristics of the batik motif of Batu City, and the batik motif that young people want as a discussion material, by determining the points of ethical dilemmas in the problem.	In this activity, students listen to and record the material explained by the teacher, namely the concept of batik motifs and the efforts to improve their quality. After the teacher presents the characteristics of Batu City's batik motifs and discusses the motifs that young people prefer, the students identify the key issues.
	*Identify*	The teacher guides students to identify and set priority points for discussion.	Students identify several points that have been determined previously and determine the priority issues to be discussed in group discussions
	*Discussion*	The teacher divides the students into six groups by selecting the leaders first. Then the group leaders choose their members. After the discussion groups are formed, each group gathers and conducts a discussion. The results of the discussion are presented in front of the class. Each group asked two questions to the presenting group.	Students form groups according to the teacher's direction with the leader choosing their group members. Group members gather accordingly, conduct discussions. and The results of the discussion are presented in front of the class, each group chooses its members to be the moderator of the discussion.
	*Decision*	After conducting discussions and questions and answers. The teacher directs the students to consider the results of the questions and answers and suggestions given by other groups. The teacher directs students to draw conclusions and determine what decisions will be made according to the topic of the problem discussed.	As a result of the discussion and question and answer, the students re-discuss to draw conclusions from what they have discussed. After that, students choose a role in the problem and make an ethical decision.
	Engage in Behavior	The teacher provides ethical action paper for students to write down ethical decisions individually. After that, students behave according to what they wrote.	Students write down the results of the decision in their respective books and ethical action sheets that have been provided by the teacher. ethical decisions that have been written down, students must behave according to what they write down.

At the orientation stage, the teacher provides an explanation of material regarding the concept of batik motifs, starting from the explanation of motifs, types, processes, manufacturing, philosophical meanings in motifs, and initiatives to enhance the quality of motifs. After that, the problem of characterizing the batik motif of Batu city is presented, and the student activity is to determine the points of the ethical dilemma. In the identification stage, these points are then identified and determined as priority issues for group discussion in the next stage. At the discussion stage, students are split into small teams to talk about the outcomes of the identification process. In this activity, students exchange

opinions to solve the problem, and then the results are presented. At the decision stage, students summarize the results of discussions and questions and answers during presentations, and decide on the position of the ethical dilemma in the problem. In the engage in behavior stage, students can write down the decisions they have made and behave according to what they write down.

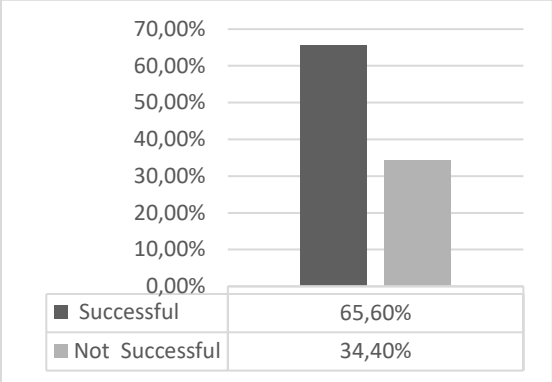

Figure 4. Results of Critical Thinking Ability Assessment Cycle I

According to the data presented, the evaluation of students' critical thinking abilities in cycle I revealed a notable rise from 28.1% at the pre-assessment stage to 65.6% during cycle I. The number of students who were complete rose from 9 to 21, achieving a completeness rate of 65.6%, whereas 11 students, representing 34.4%, were incomplete. The achievement of this success shows that the efforts made have produced significant results, although there is still room for improvement. Thus, further evaluation is needed to identify the factors causing the failure, such as technical constraints, procedural errors, or uncontrollable external variables.

The observation phase was carried out by educators and fellow students to examine the actions of exemplary teachers and learners throughout the educational process, utilizing the OIDDE model. In the process of acquiring knowledge, the observation results showed an increase in student activity. Relevant to the critical thinking activity questionnaire, the data in Figure 2 demonstrates a rise in critical thinking engagement. In the teacher questionnaire, the increase was 8.6% from pre-action, reaching 72.5% to 78.75% in cycle I. The student questionnaire increased by 21.7%, rising from 66.56% before the action to 81.1% in cycle I. The data indicated that some students began to show positive changes in attitude, learning participation, and critical thinking activities. However, there were some obstacles, including: (1) the orientation stage, some students were so focused on their cellphones that they ignored the teacher's explanation, direction, and there were also students who felt bored, (2) the identify stage, there were still students who did not identify, (3) the discussion stage, group formation was less effective because some group members still seemed less active, and the time allocation was not well controlled, (4) the decision stage, students experienced problems in making ethical decisions.

In the reflection stage, researchers, together with teachers and peers, reflect by evaluating the learning process of batik material using the OIDDE model. The results of observations in cycle I, the process of learning, and the ability to think critically have both been enhanced, but have not met the predetermined success criteria. Therefore, researchers, teachers, and peers agreed to continue the research in cycle II by making improvements. First, the material and problems were presented interestingly. Second, directing and guiding all students to identify. Third, make changes to group members. Fourth, supervise and direct each group member to actively discuss. Fifth, exercising full control over the allocation of activity time. Sixth, guiding students to make ethical decisions.

Cycle II Findings

According to the outcomes of the initial cycle evaluation, improvements were made at the second cycle stage to minimize the obstacles that arose previously. The purpose of this step is to enhance the efficiency of applying the model and to guarantee that the success indicators for the actions are met. In cycle II, the research began with planning. At this stage, the researcher, together with the teacher, rearranged, among others: Learning Implementation Plan, student worksheets, teaching materials, and assessments.

In the action stage, it was carried out by the lesson plan using the OIDDE model. This model consists of five phases, namely orientation, identification, discussion, decision, and engagement in behavior. The learning process in cycle II has been implemented following the structure of the OIDDE model, as shown in the table below.

Table 4. Steps of OIDDE Model Implementation Cycle II

Photo	Stage	Teacher Activities	Student Activities
	Orientation	Before explaining the material, the teacher directs the students to find a video on the topic of batik in the modern era. Then, display one of the videos that students obtained. The teacher continues by explaining the concept of batik history and efforts to preserve batik. At the end of the material explanation, the teacher presents the problem of youth interest as batik craftsmen in the modern era. The teacher directs students to observe and record their findings on the video.	Students look for several videos that are used for supporting facts on the problems that will be presented by the teacher. The condition of the students enthusiastic, students listening is marked to very by the material on the history of batik. At the end of the material explanation, students observe the video played by the teacher regarding the interest of teenagers as batik craftsmen. In addition to observing the video, students note the tendency of today's teenagers as batik craftsmen. Where the current condition of teenagers is interested in good batik motif designs without understanding the process.
	Identify	From the video presented by the teacher related to teenagers' interest as batik craftsmen, the teacher directs students to identify the match of the video that students were looking for before relevant to the video presented by the teacher. And determine	Students match the video findings or sources they get as a consideration for problem identification. After that, from the two videos that have been identified, students determine the problem that will be selected from the two videos.
 	Discussion	Based on the reflection of Cycle I on discussion activities, group divisions were carried out by the spin method, so that the division of groups was considered fair and evenly distributed. After the discussion groups were formed, each group conducted gathered discussions. and the results of the discussion were presented in front of the class. Each group asked two questions to the presenting group.	Students form groups based on the results of the spin conducted by the teacher. Next, they gather according to their respective groups and discuss the topics they will discuss. The results of the discussion are presented in front of the class, each group chooses its members to become moderators of the discussion.
	Decision	The teacher directs students individually in the discussion group to give opinions for the conclusion of the discussion. Then several conclusions are combined and drawn the right conclusion and full of arguments based on facts. After that, the teacher directs students to determine the ethical decision they will make.	Each student gives a conclusion of the presentation results. Then a red line or conclusion is drawn that is relevant and full of arguments. From the final conclusion, students choose roles and determine ethical decisions.
	Engage in Behavior	The teacher directs students to write down ethical decisions individually and behave according to what they write. From this decision, students are expected to apply the material obtained in everyday life.	Students write down the results of the decision in their respective books and ethical action sheets that have been provided by the teacher. ethical decisions that have been written down, students must behave according to what they write down.

Based on the table above, in the orientation stage, the learning material discusses the history of batik and conservation efforts. Then, proceed to discuss the problems that occur in adolescents in the current era regarding interest in becoming batik craftsmen, presented through videos. The identify stage runs effectively, where students actively identify ethical issues and look for supporting references. The discussion stage shows productive group dynamics, although there are some obstacles related to the

distribution of member tasks. At the decision stage, the conclusions provided by students contained facts that occurred and provided several solutions related to the problem, so that they took a role in determining ethical decisions. The engagement in the behavior stage further strengthens this finding, marked by students' ability to conclude the problem and convey ethical decisions confidently.

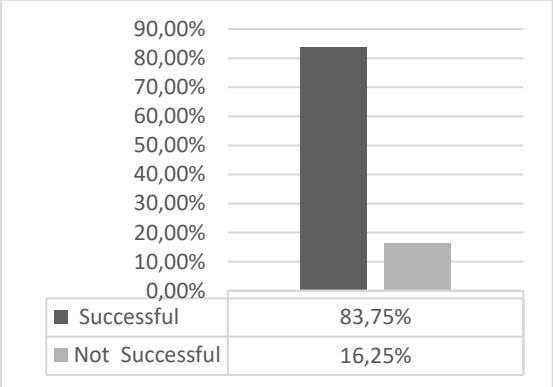

Figure 5. Results of Critical Thinking Ability Assessment Cycle II

From the information provided, it is evident that the outcomes of the critical thinking skills evaluation in cycle II demonstrated a notable improvement in students' critical thinking abilities, increasing from 28.1% in the pre-action phase to 65.6% in cycle I, and rising further to 83.75% in cycle II. Meanwhile, as many as 16.25% have not met the criteria for the success of the action. The dominating percentage of success indicates that the strategy or method applied is effective in achieving the set goals. This high success rate can be an indicator that the process carried out has been applied to expectations or standards.

In the observation stage of cycle II, observations were made in more detail, starting from the orientation syntax to engage in behavior. The observation results show that learning activities are more focused, the material provided is considered more applicable, and students can relate the material to a broader context. In line with the data from the critical thinking activity questionnaire cycle II, it shows an increase in student activity in developing critical thinking skills in the pre-action teacher questionnaire reached 72.5% to 78.75 in cycle I and to 95% in cycle II, while the pre action student questionnaire reached 66.56% to 81.1% in cycle I and to 86.7% in cycle II. Based on these data, there is a steady belief in the efficacy of the OIDDE learning model in enhancing students' learning engagement and critical thinking abilities. The learning process in cycle II, both teachers and students have adapted to the activity stages of the OIDDE model. In terms of learning quality, there was a noticeable increase in the depth of analysis of students' answers as well as the development of class discussions that were more substantive and focused on problem-solving. In addition, the solutions proposed by students became increasingly relevant and supported by logical arguments, demonstrating the growth of advanced critical thinking abilities.

At the reflection stage of cycle II, students' critical thinking skills had improved significantly. Students have shown mastery of the material marked in the way they analyze, identify, evaluate, convey personal ideas, and solve problems. This finding is reinforced by the results of the interview, the teacher assessed the learning process in cycle II using the OIDDE learning model applied in class because it was able to encourage better student understanding. in addition, the teacher realized that variations in the application of learning methods/models were needed to avoid boring routines while arousing students' enthusiasm and interest in learning activities.

The table below illustrates a comparison of the outcomes related to critical thinking skills.

Table 5. Comparison of Critical Thinking Ability Results

Assessment	Pre-Action	Cycle I	Cycle II	Pre-Cycle II Change
Total Score	2122	2500	2664	+542
Number of Students Completed	9	21	27	+18
Number of Students Not Completed	23	11	5	-18
Highest Score	84	86	94	+10
Lowest Score	28	66	70	+42
Percentage of Completion (%)	28,1%	65,6%	83,75%	+55,65%

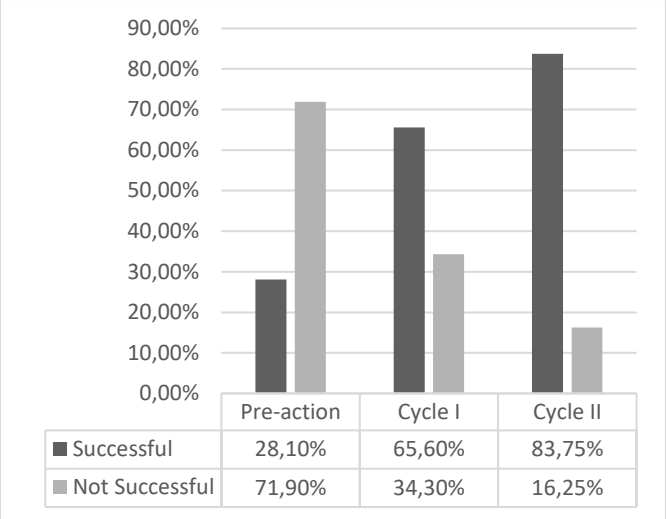

Figure 6. Critical Thinking Ability Improvement Results

Based on the data above, the results of the comparison of critical thinking skills from pre-action, Cycle I, to Cycle II show positive development, with an increase in the success rate. The increase in students' critical thinking skills shows that optimal achievement occurs in cycle II. The number of students who completed the program increased from 9 in the pre-action phase to 21 in Cycle I and 27 in Cycle II. The highest score increased significantly from 84 in the pre-intervention to 86 in Cycle I and 94 in Cycle II. The success of the intervention in improving critical thinking skills rose from 28.1% in the pre-intervention to 65.6% in Cycle I, and finally reached 83.75% in Cycle II. This achievement shows a cumulative increase of 55.65% from the initial condition, which also exceeds the set success criteria target of >75. Based on the results of the researcher's reflection with teachers and peers, the improvement achieved has met the previously set success indicators. Therefore, this study is considered to have achieved its objectives and does not need to be continued to the next cycle. Thus, it can be concluded that the OIDDE learning model implemented successfully improved students' critical thinking skills on batik material significantly.

Discussion

The OIDDE learning model integrates multiple educational frameworks that encourage students to engage in critical thinking, collaborate with others, and demonstrate ethical conduct in their decision-making (Fitria, 2022). This model emphasizes a student-centered learning approach, where students, through the syntax of the OIDDE learning model, can identify, analyze, discuss, make decisions, and behave as in ethical action decisions (Hudha et al., 2016). Theoretically, the OIDDE learning model is relevant to Vygotsky's social constructivism theory, which suggests that meaningful learning occurs when students are actively involved in social processes to construct knowledge through interaction and reflection (Van der Veer & Van Ijzendoorn, 1985).

The application of the OIDDE learning model on batik material in Class VIII-J SMPN 03 Batu demonstrated a rise in students' critical thinking engagement, with questionnaire scores increasing from 66.56% before the intervention to 81.1% in Cycle I and reaching 86.7% in Cycle II. The information was gathered by assessing the outcomes of the critical thinking activity questionnaire to evaluate each student's critical thinking skills during the learning process. From the teacher's viewpoint, there was a rise in questionnaire scores from pre-action at 72.5% to 78.75% in cycle I, which further improved to 95% in cycle II. This reflects the successful implementation of the principles of pedagogical content knowledge (PCK), where the teacher succeeded in integrating fine arts content using the OIDDE Model. This finding is in line with Sarkim (2015), research that PCK enables teachers to transform academic content to a problem-based approach, thus improving the quality of learning. Overall, this study not only strengthens the theoretical foundation of the OIDDE learning model but also provides empirical evidence for recommendations for the application of the OIDDE model, especially in the background of an independent curriculum that emphasizes differentiated and student-centered learning (Hudha et al., 2021)

The structure of the OIDDE learning model includes orientation, identify, discussion, decision, and engage in behavior (Hudha, 2020). In the orientation stage, in cycle I, students developed their knowledge and experience related to the problem of the distinctive characteristics of stone city batik and efforts to improve the qualitative motives. The results of observations show that the application of the OIDDE learning model found several obstacles, such as less interesting materials and problems. Related to the problems or obstacles in the orientation stage of cycle I, improvements were made in cycle II by presenting more interesting material in the form of videos and choosing issues that are in accordance with the surrounding environment. In cycle II, the problem presented was the interest of the younger generation as batik craftsmen. According to Prasetyo et al. (2020), the success of learning is determined by how teachers apply teaching strategies that can foster student motivation through the creation of a pleasant learning environment. This activity allows students to build their initial knowledge and experience before entering into a more in-depth analysis stage (Fatma, 2025). Students not only observe and take notes, but they are also allowed to determine the ethical dilemma issues to be discussed (Hudha, 2020). Lasmana et al. (2020)stated that Experiential problem-based learning, which is tangible or readily accessible in everyday surroundings, can motivate students to engage actively in honing their critical thinking abilities..

Furthermore, at the identification stage, ethical dilemma issues are identified and analyzed individually before being discussed in groups. Identifying activities encourage critical thinking skills because they require students' analytical skills on a problem, thoughts must be open, clear, and based on facts (Husamah et al., 2018). The orientation and identification stages facilitate a structured and directed discussion stage process (Saputri et al., 2025). Discussion activities require students to determine their position on the selected case, provide ideas, and exchange opinions (Fitria, 2022). Students apply their knowledge and experiences to identify solutions and take action for themselves and others (Husamah et al., 2018)

The observation results in cycle I on the identification and discussion activities showed that the time allocation was less controlled, group members did not fully participate actively in discussions, and the use of gadgets that were not aligned with learning needs. In line with Husamah et al. (2018), the lack of control by the teacher in identification and discussion activities is natural because students and teachers are still adapting to the OIDDE model learning. In addition, Syahyudin (2019) explains that inappropriate use of gadgets can interfere with communication and learning concentration. In cycle II, the enhancements implemented by the teacher involved managing time allocation for each activity within the OIDDE learning model and enforcing strict limits on gadgets by allowing only two devices per group, ensuring that discussion activities were more concentrated and effective. From the viewpoint of Husamah et al., 2018) the task of the model teacher needs to focus attention and apply strict time discipline, especially at the discussion stage, to prevent discussions that are too long and ineffective.

The decision stage encourages students to make decisions on ethical dilemma issues, where the decision must be relevant. According to Husamah et al. (2018), critical thinking allows students to provide effective and relevant problem-solving. Saputra (2020) said that every individual will always be faced with decision-making, which requires the ability to think critically to see phenomena or problems that are then problem-solved. Furthermore, at the engage in behavior stage, students behave according to the decisions that have been made (Fitria, 2022).

The OIDDE learning model successfully enhances critical thinking abilities in batik material by utilizing a structured approach that incorporates students' existing knowledge and experiences (Husamah et al., 2018). Relevant to Vygotsky's social and cultural context theory, the theory argues that the social and cultural environment around students greatly influences students' cognitive development by applying problem-based learning models or approaches (Astiti et al., 2024). Furthermore, the phases in this framework highlight the significance of self-directed exploration and genuine problem-solving to enhance students' cognitive abilities (Hudha et al., 2016).

According to the analysis of the critical thinking skills results, there is a notable improvement in students' critical thinking skills, with pre-action scores rising from 28.1% to 65.6% in cycle I, and further increasing to 83.75% in cycle II. This can be explained through Facione (2011), critical thinking framework, where the stages of the OIDDE learning model train interpretation, analysis, evaluation, inference, explanation, and self-regulation skills, which are high cognitive levels. By using problems as discussion material, students can explore knowledge, experience, and theories that have been previously constructed into a solution (Husamah et al., 2018).

The findings of this research align with Karunia (2023), indicating that implementing the OIDDE learning model in the educational process leads to a substantial improvement in students' critical thinking abilities. Every phase of the OIDDE learning model contributes to the development of critical thinking skills. A similar occurrence was observed in the study of Lasmana et al. (2020) and (Saputri et al., 2025), both of which demonstrated a rise in students' critical thinking abilities. In addition, the OIDDE model also encourages students to be more active through identifying, analyzing, evaluating, making solutions, and drawing conclusions. Consequently, this research demonstrates that utilizing the OIDDE learning model serves as an effective method for enhancing students' critical thinking abilities in batik content, but it should be noted that the learning objectives and learning process require an adjustment or adaptation stage for students and teachers to achieve optimal results

CONCLUSION

The findings indicated that: (1) The learning process has been implemented following the syntax of the OIDDE learning model, which indicates an enhancement in students' critical thinking activities. In applying the OIDDE learning model, there were notable improvements in cycle II during the orientation, identification, and discussion phases, as reflected in the results from cycle I., (2) The findings from the evaluation of critical thinking abilities indicate a notable rise in students' critical thinking skills, with the percentage at the pre-action stage reaching 28.1%, increasing to 65.6% in cycle I, and further rising to 83.75% in cycle II. Therefore, this research concludes that the OIDDE learning model is validated as an effective method for enhancing students' critical thinking skills regarding batik material. The successful implementation of this model is not only seen from the cognitive improvement of students, but also shows its potential as a pedagogical framework that can be adapted in the context of learning fine arts and local wisdom.

The findings of this study are anticipated to significantly enhance the quality of the fine arts educational experience. Consequently, it is advised that additional research be carried out to assess the implementation of the OIDDE learning model in enhancing learning activities, motivation, learning outcomes, and the long-term application of ethical decision-making.

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