

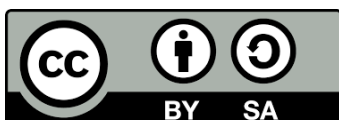
Application of Differentiated Discovery Learning Based on Drawing Traditional Ornamental Varieties in Fine Arts Subjects to Improve Learning Outcomes of Students in Class VII-H

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Abstract

This research focuses on applying the Differentiated Discovery Learning model based on drawing traditional decorative varieties in fine art subjects to improve learning outcomes for students. Based on observations on the subject of fine arts, a problem was found in students in grade VII-H at SMP Negeri 02 Batu related to low learning outcomes in drawing materials of traditional ornamental varieties. This model combines a Discovery Learning strategy with a differentiation approach, which tailors the learning strategy to the learners' abilities, interests, and learning styles. The subjects in this study are students of class VII-H SMP Negeri 02 Batu with a total of 30 students. The method used in this study is Classroom Action Research (PTK) with Mc cycles based on Kemmis and McTaggart, which consists of two cycles. Each cycle includes the stages of planning, implementation of actions, observation, and reflection. Data collection procedures were collected through observations, interviews, questionnaires, and documentation. Quantitative and qualitative methods are used for data analysis. The implications of this PTK research show that the application of Differentiated Discovery Learning can improve student learning outcomes. The results showed that with the implementation of Differentiated Discovery Learning, the percentage of pre-action data was obtained by 40%, in the first cycle by 60% and in the second cycle by 90%. Therefore, it can be concluded that the application of Differentiated Discovery Learning can improve the learning outcomes of fine arts students in class VII-H SMP Negeri 02 Batu on traditional decorative drawing materials.

Keywords: *Differentiated discovery learning*; learning outcomes; drawing traditional decorative varieties



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INTRODUCTION

Fine arts subjects are subjects that must be given in schools as part of efforts to realize quality education. According to Faizah et al, (2018) stated that fine arts subjects aim to develop various aspects in students, such as sensitivity to aesthetics, ability to appreciate works of art, imagination, creativity, skills, and a sense of love and pride for national art and culture. In addition, according to Kusmiati (2022) emphasizing that fine arts basically aims to shape students to become active, creative, and productive individuals.

Regarding Government Regulation Number 19 of 2005 concerning National Education Standards, the content of fine arts is not limited to just one subject, because culture encompasses all aspects of human life (Faizah et al., 2018) Basically, art is a form of art education based on cultural values. The art learning process provides an aesthetic experience to students through expression, creation, and appreciation activities, with an approach of "learning through art, with art, and about art" (Suparman, 2019). Thus, it can be said that art is related to the process of expressing all aspects of life.

Based on observations during the learning process of fine arts subjects, a problem was found in grade VII-H students at SMP Negeri 02 Batu regarding the learning outcomes of students in fine arts subjects, especially in traditional decorative drawing materials, which are still relatively low. This is due to several factors, namely learning methods that are less interactive and still teacher-centered, various levels of students' ability to understand fine arts materials, so that students with low abilities often feel left behind, while students with high abilities feel less challenged, lack of integration of local cultural values in learning, which makes it difficult for students to understand the relevance of fine arts to their lives. This statement is in line with the opinion (SUSILO, 2019) which states that in the learning process, teachers tend to explain the material in detail at length and end it with assignments, the cycle causes students to become passive in learning, student activities do not appear and lack of interest or learning, resulting in low learning outcomes.

The reality that occurs in schools is that fine arts lessons for students are very complicated because they are related to hand and motor skills and children feel that they do not have talent, so students' learning outcomes tend to be lower than other subjects (Mardianto, 2023). One of the materials that is considered complicated is drawing a variety of traditional ornaments. Decorative variety drawing materials, which include elements, principles, techniques, and procedures, often cause difficulties for students, especially when asked to draw traditional ornamental varieties. Many of them experience obstacles in recognizing the shapes of objects to be drawn if they rely solely on imagination without the support of visual examples (Rivaldi & Rangga, 2020). Given these problems, the researcher applied the Differentiated Discovery Learning model as an effort to improve the learning outcomes of students in grade VII-H SMP Negeri 02 Batu in the material of drawing decorative varieties in fine art subjects.

Differentiated Discovery Learning (DDL) is an innovative approach that can be a solution to these problems. This model combines discovery learning strategies with differentiation, which is the adjustment of teaching strategies based on the needs, interests, and abilities of learners. With this method, students can learn through a discovery process that is in accordance with their respective skill levels. The emphasis on traditional decorative materials also allows fine art learning to be more relevant to the local cultural context of students, thereby increasing their motivation and learning outcomes.

Differentiated learning is an approach in which educators design learning activities that are tailored to the diversity of students' needs, both in terms of materials and activities, to suit the level of mastery and learning style of each individual. (Laumarang et al., 2023). Meanwhile, according to Nurfajri (2020), discovery learning is a learning model that encourages students to be active in the learning process by finding and investigating their own material. Thus, the knowledge obtained will be deeper and last longer in the students' memories, so that it is not

easily forgotten. In addition, according to Hotang (2019), the application of this model aims to change the learning conditions that were previously passive to more active and creative, with a shift from teacher-centered learning to student-centered learning. Meanwhile, according to Suparman (2019), the use of the discovery learning method is very important to improve student learning outcomes. Thus, the application of the learning model is appropriately applied to overcome existing problems, namely related to student learning outcomes that tend to be low.

One of the learning models that can be integrated with differentiated learning methods is discovery learning. According to Defitriani (2018), this model is based on the view of constructivism, which encourages students to actively participate in the learning process. With this approach, learners are invited to build their own knowledge through hands-on experience, while discovering important principles independently. In the context of learning, the two can be interrelated. Differentiated learning can adopt elements of discovery learning by providing various options or methods that suit the learning style and needs of each student. By presenting a variety of ways for students to explore and understand the material, differentiated learning is able to strengthen a more optimal and effective discovery learning experience for each individual.

This research is inseparable from the results of previous research which is used as a reference and comparison. Based on the studies that have been described, there are two studies that are closely related to this research. First, a study by Basir & Jusniar (2023), entitled "The Application of Differentiated Learning with the Discovery Learning Model to Improve Student Learning Outcomes". The results of the study show that the application of differentiated learning methods combined with the Discovery Learning model is able to improve student learning outcomes. In the first cycle, the level of learning completeness reached 75%, and increased in the second cycle to 91%. Thus, it can be concluded that differentiated learning strategies through the Discovery Learning approach are effective in improving chemistry learning outcomes of grade XI MIPA 5 students at SMAN 14 Makassar in the 2023/2024 school year, especially in Hydrocarbon Compounds material.

The second previous research, conducted by Firjatillah & Junaidi (2023), entitled "The Application of Differentiated Learning with the Discovery Learning Model to Increase Student Activity in Colloidal System Materials" revealed that there was an increase in student learning activity from the first cycle to the second cycle. In the first cycle, the average activity rate reached 43.26%, with the highest indicator being the ability to express opinions or ideas, which was recorded at 55.6%. In cycle II, there was an increase in average activeness of 7.8%, and the indicator of opinion delivery remained the most prominent with an increase of 11.1%. Other supporting data showed an increase of 13.9%, from 69.4% in the first cycle. Meanwhile, the results of the documentation of task collection also increased by 8.4%, from 83.3% in the first cycle.

With this presentation, the researcher conducted a study that aimed to apply Differentiated Discovery Learning based on traditional ornamental varieties in learning fine arts to improve the learning outcomes of students in grade VII-H SMP Negeri 02 Batu. With this approach, it is hoped that students will not only be able to improve learning outcomes, but also appreciate local culture more through the artworks they produce with a thesis entitled "The Application of Differentiated Discovery Learning Based on Traditional Ornaments in Fine Arts Subjects to Improve the Learning Outcomes of Students in Class VII-H of SMP Negeri 02 Batu".

RESEARCH METHODS

The approach taken in this study is Classroom Action Research (PTK). Classroom Action Research is a research conducted by teachers in the classroom as a form of self-reflection that involves a series of actions that are designed, implemented systematically, and carried out

repeatedly in several cycles to improve the quality of learning (Utomo et al., 2024). Thus, Classroom Action Research (PTK) can be understood as a research conducted by teachers to overcome problems that arise in the classroom with the aim of finding effective solutions to improve and improve the quality of the learning process. Sugiarni et al, (2021: 25) revealed that PTK is one of the studies carried out to improve the performance of educators which results in increased learning outcomes. The researcher seeks to research problems in the classroom, precisely at SMP Negeri 02 Batu related to improving learning outcomes through the differentiated discovery learning model approach.

This research was carried out in several stages, namely: the Pre-action stage and two cycles carried out in March-April 2025. Meanwhile, the pre-action stage was carried out to measure the learning outcomes of students in drawing traditional ornamental varieties before the implementation of Cycle I. The implementation of Pre-action activities was carried out by applying the learning process using the model commonly used by teachers. At this stage, data is collected through several techniques, such as documentation, questionnaires, and interviews. The results of this pre-action are used as a comparison of the results before and after the study was carried out. Furthermore, the class action research uses two cycles, namely cycle I and cycle II with a research model designed by Kemmis and Taggart. This study uses two cycles with the aim of overcoming deficiencies that may arise in cycle I. Planning and improvement will be carried out in the next cycle until results are obtained in accordance with expectations. This study adapts this approach to explore the impact of the application of the Differentiated Discovery Learning learning model in improving students' learning outcomes of drawing traditional ornamental varieties. Through classroom action research (PTK), researchers can systematically monitor and evaluate the effectiveness of learning models applied in the specific context of fine arts classes at SMP Negeri 02 Batu. Thus, PTK provides a structured framework to understand the changes that occur in the learning process and the results achieved by students in improving the learning outcomes of drawing traditional ornamental varieties.

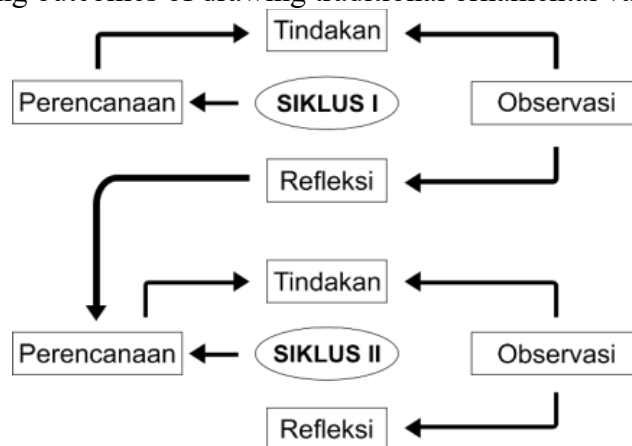


Figure 1. Classroom Action Research Cycle (Source: Kemmis and Taggart (Cahyani., 2021))

Based on Figure 1, this research consists of four stages in each cycle. In the planning stage of Cycle I, a learning strategy was prepared that aimed to improve the quality of learning. This activity includes the preparation of teaching modules, learning tools such as PPT, the provision of learning resources in the form of videos, learning materials, and student worksheets (LKPD). In addition, it is also determined the appropriate learning approach and design the research instruments to be used. At the action stage, the researcher collaborates with the art teacher to carry out the learning process according to the plan that has been made, by applying the learning model that has been applied. At the observation stage, observations are made of changes that occur in students, both in terms of actions and attitudes during the learning process.

In Cycle II, observation and evaluation were carried out in more detail, including the process of drawing traditional ornamental varieties, the assessment of the work, and the level of success achieved in the cycle. In the reflection stage, the researcher and the teacher analyze, evaluate, and reflect on the results of the actions that have been carried out from Cycle I to Cycle II. The purpose of this stage is to assess the effectiveness of the measures that have been implemented and to conclude the results obtained. The results of this reflection will determine whether the action objectives in Cycle I and Cycle II have been achieved or still need further improvement.

This research was carried out at SMP Negeri 02 Batu, which is located on Jalan Bromo, Sisir, Kec. This research involved Mrs. Krissiwi Arum Hening, S.Pd., as a Fine Arts teacher in class VII-H, and all students of class VII-H SMP Negeri 02 Batu as participants. The number of students in this class is 30 people, consisting of 15 male students and 15 female students. The selection of this class is based on the results of observations and documentation studies that show that there are problems related to low learning outcomes in fine arts subjects, especially traditional decorative drawing materials. In addition, cognitively, students in grade VII-H have difficulty in receiving material and understanding instructions during the learning process. As an effort to improve learning outcomes, the Differentiated Discovery Learning learning model is applied as an action in this Classroom Action Research (PTK). According to Ahmadi and Prasetya (in Mukaramah et al., 2020), the learning procedure based on discovery learning states the syntax in the differentiated discovery learning learning model, namely (1) Simulation; (2) Problem Statement; (3) Data collection; (4) Data Processing.

This study uses data collection techniques that include qualitative and quantitative approaches to obtain a comprehensive understanding of the effectiveness of the application of the Differentiated Discovery Learning learning model in improving student learning outcomes. Qualitative data was obtained through various sources, including: Questionnaires or questionnaires, which were given to students and teachers to evaluate the success rate of the implementation of Differentiated Discovery Learning in improving the learning outcomes of drawing traditional ornamental varieties. In addition, this questionnaire also serves to collect useful input in improving learning in the next action. In addition, documentation, which includes visual recordings such as photos and videos of the learning process as well as artwork produced by students. The interview, which was conducted to explore the students' experiences and teachers' views on the changes that occurred in learning to draw traditional ornamental varieties. Meanwhile, a quantitative approach was used to analyze the results of the questionnaire and measure the extent to which Differentiated Discovery Learning contributed to the improvement of students' learning outcomes to draw traditional decorative varieties. Through a combination of qualitative and quantitative data, this study provides in-depth insights into the perception, experience, and effectiveness of the Differentiated Discovery Learning learning model in the context of traditional decorative variety drawing learning.

Quantitative data in this study was obtained from the value of students' skills in drawing traditional ornamental varieties in three stages, namely pre-action, cycle I, and cycle II. This data analysis provides a clear picture of the improvement of students' learning outcomes in drawing traditional ornamental varieties. The results of the evaluation showed that after the implementation of Differentiated Discovery Learning, there was a significant increase in the value of students' skills, even reaching or exceeding the Minimum Completeness Criteria (KKM). In addition, qualitative data provides a deeper understanding of changes in learning approaches through Differentiated Discovery Learning and how this model contributes to simplifying and smoothing the learning process for students. Therefore, the data collection technique in this study is expected to provide a comprehensive picture of the effectiveness of Differentiated Discovery Learning in improving the learning outcomes of drawing traditional ornamental varieties. By combining qualitative and quantitative data, this study can provide a

deeper and more comprehensive understanding of the impact of the application of learning models on improving learning outcomes of traditional decorative drawings.

The data analysis in this study was carried out using Microsoft Excel through several stages of the process. First, data on the value of students' learning outcomes in drawing traditional ornamental varieties in the pre-action stage, Cycle I, and Cycle II were collected and entered into Excel worksheets. Furthermore, the student's score is calculated using a predetermined formula, taking into account the weight of each relevant aspect of the assessment. Microsoft Excel is used as a tool to organize, manage, and analyze data systematically, allowing researchers to gain a deeper understanding of the development of student learning outcomes over time. By utilizing Excel, researchers can produce accurate and comprehensive analysis, which is the basis for the evaluation process and decision-making related to further learning improvement. With the following formula:

$$Ketuntasan = \frac{\text{Siswa yang tuntas}}{\text{Jumlah keseluruhan siswa}} \times 100\%$$

After the calculation of student scores was carried out, the success of this study was evaluated by considering the increase in the average percentage of student learning outcomes after the application of the Differentiated Discovery Learning learning model. It is hoped that there will be a significant increase, so that the average percentage of student learning outcomes reaches at least 75%.

The success of student learning outcomes can be measured through the level of achievement in teaching materials, with a classical target of 75% of students who obtain a minimum score of 78. This success criterion focuses on improving students' understanding of traditional decorative drawing materials after participating in Differentiated Discovery Learning. This approach is in line with the main goal of the research, which is to improve the learning outcomes of drawing traditional ornamental varieties through the application of the Differentiated Discovery Learning model. Some aspects that are indicators of success include the ability to apply the concept of traditional ornamental varieties, learning outcomes in producing works that are in accordance with design principles, and the ability to express ideas visually through drawing traditional ornamental varieties. This evaluation was conducted to provide a deeper understanding of the effectiveness of the Differentiated Discovery Learning learning model in achieving the learning objectives that have been designed. According to (Muah, 2016) the implementation of the model developed by Kemmis and Taggart consists of four stages in each cycle, namely: 1) the planning stage, 2) the acting stage, 3) the observing stage, and 4) the reflecting stage.

Table 1. Success Indicators

Success Rate	Information
80%-100%	Good
59%-79%	Enough
0%-58%	Less

Source: Ministry of Education and Culture 2016

RESULT AND DISCUSSION

Pre-action

In the pre-action stage, learning still uses methods that have been previously applied by the teacher, without any intervention from the researcher. The researcher conducts observation, evaluation, and analysis of the learning process and the results of students' work in drawing traditional ornamental varieties. This activity aims to obtain an initial overview of students' learning outcomes before the implementation of the *Differentiated Discovery Learning* learning model. The data obtained are analyzed and presented in Table 2.

Table 2. Student Learning Outcomes in Pre-action

Yes	Achievement Indicators	Valuation	Pre-action
1	Create traditional decorative drawings with free themes	Average score	71
		Completed students	12
		Students who have not completed	18
		Percentage of Achievement	40%

Based on the data above, it is known that the learning outcomes of students in drawing traditional ornamental varieties are still relatively low, with only 40% achieving the Minimum Completeness Criteria (KKM). A total of 18 students have not achieved completeness, while 12 others have met the criteria. An average score of 71 indicates the need for improvement in learning outcomes. The results of interviews with teachers showed several obstacles, such as students' difficulties in pouring out ideas, lack of involvement in understanding the material, and significant variations in the quality of the work. This shows the importance of choosing a learning strategy that is able to accommodate the individual needs of students. The *Differentiated Discovery Learning* approach is expected to be able to answer these challenges by providing a more varied, interactive, and potential-oriented learning experience for each student.

Cycle I

To overcome the obstacles found in the pre-action stage, researchers began to apply the *Differentiated Discovery Learning* learning model in cycle I. This model was chosen because it has characteristics that can adapt the learning process to the needs, interests, and abilities of each student, as well as encourage them to actively build understanding through exploratory learning experiences. This study uses the model from Kemmis and Taggart, which includes several stages of action as follows: **Planning:** The researcher prepares a thorough plan before the action is implemented. This step includes the preparation of teaching modules and LKPD based on *Differentiated Discovery Learning*, the provision of learning media, drawing tools and materials, as well as data collection instruments such as observation sheets, questionnaires, and interviews. The learning materials are prepared visually and contextually to make them easier to understand.

Action Implementation: Learning takes place in two meetings. The teacher delivered the material briefly and showed examples of traditional decorative works. Students are given space to ask questions, then form a working group to discuss ideas, prepare materials, and start sketching as the initial stage of the work. In this process, learners explore and find drawing ideas that suit their respective interests and abilities.

Observation: The observation stage is carried out simultaneously with the action process, with the aim of recognizing, recording, and documenting the ongoing course of learning. This observation includes the activities of teachers and students during the implementation of *the Differentiated Discovery Learning* model. The observer monitors how the teacher carries out the learning process to assess the extent of his competence in implementing the strategy, as well as observing the involvement of students in each stage of learning and evaluating their work through an assessment of the process of drawing traditional ornamental varieties.

Reflection: Reflection is done by analyzing the fit between planning and execution, as well as identifying obstacles that arise. Some obstacles such as time management and lack of understanding of the concept of decorative variety, difficulties in pouring ideas into visual form still need to be improved. However, in general, the *Differentiated Discovery Learning* model shows a positive impact on students' learning outcomes in drawing traditional ornamental varieties.

The application of *Differentiated Discovery Learning* in cycle I gave quite encouraging results. Students look more involved and the work shows development in terms of ideas, composition, and techniques. Learning activities become more meaningful because learners not only imitate, but also explore and build understanding through hands-on experience. This shows that *the Differentiated Discovery Learning* model can be a solution in improving fine art learning outcomes, especially drawing traditional ornamental varieties.

Table 3. Student Learning Outcomes in Cycle I

Yes	Achievement Indicators	Valuation	Pre-action
1	Making works of drawing traditional ornamental varieties with the theme of flora	Average score	78
		Completed students	18
		Students who have not completed	12
		Percentage of Achievement	60%

The results of the first cycle showed a significant improvement compared to the pre-action stage. The percentage of completeness of students' learning outcomes increased from 40% to 60% in the first cycle, with the category of learning outcomes at the 'adequate' level. The average score of students also increased, from a score of 71 to 78. Despite the satisfactory improvement, there are still 12 students who have not reached the Minimum Completeness Criteria (KKM), while 18 other students have met the criteria.

Based on the results of the interviews, a number of obstacles have been identified that need to be followed up immediately for improvement in the next cycle. Some of the obstacles that arise in the process of drawing traditional decorative varieties include a lack of mastery of basic drawing techniques. In addition, students also face difficulties in exploring ideas and pouring them into visual form, which has an impact on the low quality of the images. Therefore, it is necessary to adjust learning strategies and strengthen mentoring in the process of working so that the implementation in the next cycle can run more optimally and the quality of learning to draw traditional ornamental varieties increases comprehensively.

Cycle II

In the second cycle, teachers try to increase the effectiveness of traditional decorative drawing learning activities by implementing a series of improvement strategies that have been designed based on the results of previous reflections. It is hoped that the implementation of these measures can have a positive impact on improving learning outcomes and active involvement of students during the learning process. This research still refers to the class action model developed by Kemmis and Taggart, which includes four stages, namely:

Planning: The researcher and the teacher redesigned the learning process by taking into account the obstacles that arose in the previous cycle. This planning includes the preparation of teaching modules and LKPD for cycle II, the preparation of new and more interesting teaching media and materials, as well as the preparation of research instruments that include observation sheets, questionnaires, interviews, and learning outcome assessment instruments. In the implementation of this cycle, students were given the opportunity to explore ornamental motifs with the theme of fauna, as a form of variation from the learning materials that had been given previously.

Implementation of Actions: The learning process in cycle II is carried out in two meetings and refers to a pre-designed plan. The focus of learning activities is directed to improve learning outcomes for students in drawing traditional ornamental varieties through the *Differentiated Discovery Learning approach*. The teacher provides initial briefings and guides students in exploring ideas, choosing appropriate decorative motifs, and proceeding to the stage of sketch design, coloring, and completion of the final work. This process encourages students to be actively involved from the visual planning stage to technical implementation in producing traditional ornamental works.

Observation: In the observation stage of cycle II, the observation and evaluation process is carried out in more depth, covering all stages of students' activities in drawing traditional ornamental varieties. The evaluation includes the involvement of students during the drawing process, the quality of the work produced, and the extent to which success indicators were achieved in cycle II. In addition, observations were also made on teachers to assess their ability to carry out the learning process, especially in facilitating the *Differentiated Discovery Learning approach*. Observation of students includes exploring ideas, selecting motifs, making sketches, coloring, and completing traditional decorative works, which then become the basis for the assessment process of their learning outcomes.

Reflection: At the reflection stage of cycle II, it is carried out jointly between researchers and teachers to evaluate the overall process and results from cycle I to cycle II. The purpose of this reflection is to assess the effectiveness of the learning model applied, as well as to ensure whether the actions taken have succeeded in achieving the target of improving student learning outcomes. The results of this stage are the basis for concluding the successful implementation of the *Differentiated Discovery Learning model* in the context of learning to draw traditional ornamental varieties.

Table 4. Student Learning Outcomes in Cycle II

Yes	Achievement Indicators	Valuation	Pre-action
1	Making works of drawing traditional ornamental varieties with the theme of fauna	Average score Completed students Students who have not completed Achievement Percentage	81 27 3 90%

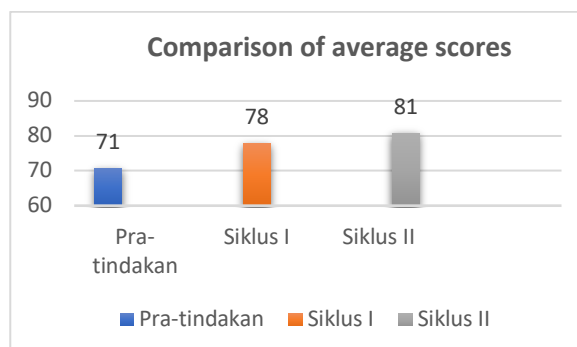
The results of the improvement cycle, i.e. cycle II, showed a very significant improvement compared to the previous cycle. The percentage of student learning outcomes achievement increased from 60% in cycle I to 90% in cycle II, reflecting significant progress with the category of learning outcomes that are classified as good. In addition, the average assessment score also increased, from 78 in the first cycle to 81 in the second cycle. These findings are in line with the results of the interview, which revealed that through the application of a more focused *Differentiated Discovery Learning* learning model, supported by intensive guidance in exploring creativity as well as periodic monitoring and evaluation of students' learning activities, the achievement in the learning process experienced a significant increase in cycle II.

Thus, it can be concluded that the improvement efforts made were effective in achieving the learning objectives. The application of the *Differentiated Discovery Learning* model has a positive impact on improving the quality of the teaching and learning process. Significant increases in completion rates and learning outcome scores indicate that this strategy is able to encourage active engagement of learners and strengthen their achievement in fine arts learning. Thus, the implementation of cycle II shows the importance of using a targeted approach, implementing strategic interventions, and continuous assistance to optimize student learning outcomes.

Based on the findings that have been presented previously, the following is presented a comparative overview of the improvement of student learning outcomes in the activity of drawing traditional ornamental varieties.

Table 5. Comparison of the Achievement of Learning to Draw Traditional Ornamental Varieties

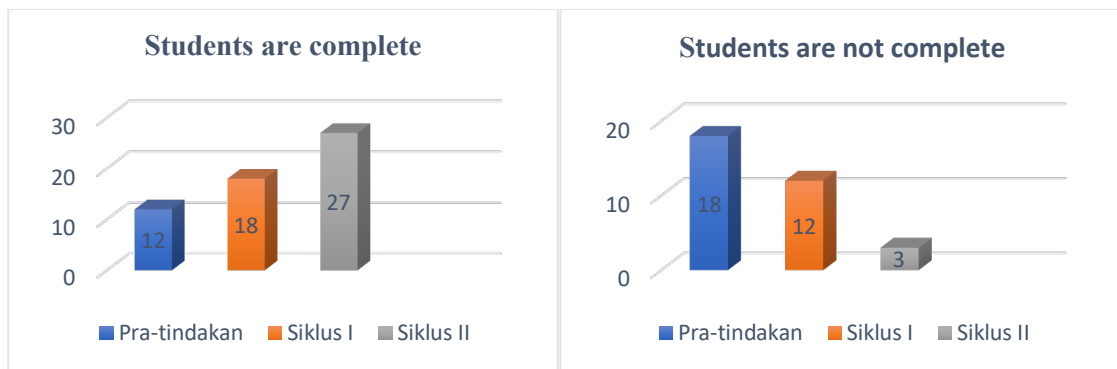
Aspects of the assessment of the results of drawing traditional ornamental varieties	Action Stages		
	Pre-action	Cycle I	Cycle II
Average score	71	78	81
Completed students	12	18	27
Students who have not completed	18	12	3
Percentage of Achievement	40%	60%	90%



Graph 1. Comparison of Grade Averages

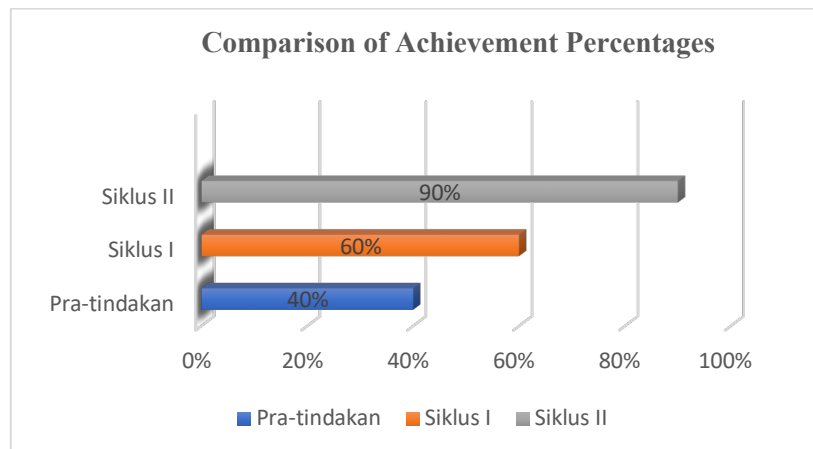
The data presented in Table 3.4 and Graph 1 show a significant increase in the average value of student learning outcomes from the pre-action stage to cycle II. In the pre-action stage, the average score of students was at 71, then increased to 78 in the first cycle, and reached 81 in the second cycle. This improvement reflects that through a continuous learning process and consistent practice, students' ability to draw traditional ornamental varieties has experienced positive development. These findings strengthen the evidence of the effectiveness of the learning model applied in encouraging the gradual improvement of student learning outcomes during the research process.

Comparison of Student Completeness



Graph 2. Comparison of Student Completeness

Based on the data on the number of students who successfully completed the task of drawing traditional ornamental variety, there was a fairly consistent increase from the Pre-action stage to Cycle I, and then to Cycle II. In the Pre-Action stage, there were 12 students who were able to complete the assignment well. This number increased to 18 students in Cycle I, and continued to increase to reach 27 students in Cycle II. This shows that the application of the *Differentiated Discovery Learning* model has a positive impact on improving students' ability to draw traditional ornamental varieties. Meanwhile, regarding the number of students who have not reached the Minimum Completeness Criteria (KKM) in completing the task, there is a significant decrease from the Pre-action stage to Cycle II. In the initial stage, there were 18 students who had not reached the KKM. This figure decreased to 12 students in Cycle I, and only 3 students remained in Cycle II. This decrease is an indication that the *Differentiated Discovery Learning* model applied is able to help more students to achieve the expected learning outcomes.



Graph 3. Comparison of Achievement Percentages

Finally, based on the percentage of achievement data, there was a very significant increase from the Pre-action stage to Cycle II. The percentage of achievement of traditional ornamental drawing skills increased from 40% in the Pre-action stage to 60% in Cycle I, and jumped significantly to 90% in Cycle

II. This improvement confirms that the application of the *Differentiated Discovery Learning* model has succeeded in improving students' learning outcomes in drawing traditional ornamental varieties as a whole, with a very satisfactory achievement rate at the end of the learning process.

The findings of this study show that the application of the Differentiated Discovery Learning learning model is able to improve students' learning outcomes in drawing traditional ornaments. These results show that learning that pays attention to the differences in students' characteristics in terms of interests, abilities, and learning styles is very effective in creating a learning experience. The application of Differentiated Discovery Learning allows learners to build knowledge and skills through learning experiences that suit their needs, which ultimately positively impacts improved learning outcomes.

The active involvement of learners in the learning process in each cycle shows that the differentiated approach in Differentiated Discovery Learning is effective in increasing motivation and learning participation. In the context of art learning, this engagement is especially important because art is expressive and requires an approach that respects diversity. Research by Hasibuan et al. (2025) confirms that differentiated learning methods can significantly increase students' motivation and learning outcomes.

Further, the increase in the average score from 71 in pre-action to 81 in cycle II confirms the success of this model. This improvement shows that learning strategies that combine aspects of discovery and differentiation are able to create a learning environment conducive to the development of drawing skills. This is in line with the findings of Aprianto et al. (2021) who stated that flexibility and adaptability in learning models have a positive influence on learning outcomes.

The decrease in the number of students who have not reached the Minimum Completeness Criteria (KKM) from 18 in the pre-action to only 3 in cycle II reflects the effectiveness of the Differentiated Discovery Learning model in overcoming individual learning barriers. In learning fine arts, the challenges faced by students vary widely, ranging from technique, creativity, to understanding cultural values. This model is able to answer these challenges with an adaptive and responsive approach.

The use of visual learning media such as ornamental examples and video tutorials greatly supports the discovery-based learning process. According to research by (Ningsih, 2020), visual learning media increases motivation and understanding of concepts, especially in the context of adaptive online and hybrid learning. In addition, the active participation of learners in group discussions, exploration of ideas, and presentations of works shows that Differentiated Discovery Learning not only improves cognitive learning outcomes but also builds social and communication skills. This is supported by research This is supported by research by Ayu et al. (2022) who stated that the use of audio-visual media in dance learning can significantly increase students' learning motivation.

Comparison with previous research, such as those conducted by Basir et al., (2023) shows the suitability of the findings that combining differentiated learning models with discovery learning can improve learning outcomes. In the context of art learning, the application of Differentiated Discovery Learning specifically provides a space for students to explore their visual potential and express creativity through artworks based on local culture.

Thus, the application of Differentiated Discovery Learning in learning to draw traditional ornamental varieties not only improves learning outcomes, but also strengthens students' appreciation of local cultural values. The practical implications of this study are the importance of teacher training in implementing differentiation and discovery learning strategies effectively and the provision of learning resources that support these approaches.

For further development, this study recommends that the Differentiated Discovery Learning model be implemented in other subjects that require a creative and contextual approach. Further research can delve deeper into the influence of Differentiated Discovery Learning on the affective and psychomotor aspects of students, as well as develop a learning model based on local culture that is adaptive to the needs of students in various regions.

CONCLUSIONS

Based on the results of the research that has been carried out, it can be concluded that the application of the Differentiated Discovery Learning learning model is one of the effective alternatives to improve students' learning outcomes in drawing traditional ornaments. The improvements that have occurred show that through an approach that focuses on the individual needs of learners and their active

involvement in the learning process, this model is able to create a positive learning environment and encourage learners to be more creative and actively involved.

Although the results in Cycle II showed excellent achievements, improvements are still needed considering that each student has different characteristics in the process of drawing traditional ornamental varieties. These findings confirm that the application of the Differentiated Discovery Learning model is effective in improving student learning outcomes. Initial evaluation showed low learning outcomes, with a skill percentage of only 40%. However, through the application of this model in Cycle I, there was a significant increase in the average score, from 71 in the Pre-action stage to 81, although there were still some students who had not yet reached completion. At this stage, there are still obstacles such as difficulty in facing difficulties in exploring ideas and pouring them into visual form.

Furthermore, learning improvements were carried out in Cycle II, which successfully overcame these obstacles. As a result, the achievement increased to 90%, with an average score of 81. The number of students who achieved completeness also increased significantly, from 18 students in Cycle I to 27 in Cycle II. Meanwhile, the number of students who have not completed has been drastically reduced from 12 to only 3 students.

These findings make an important contribution to improving the quality of arts education, particularly through an approach that focuses on individual needs and the active participation of learners. In addition, this also emphasizes the urgency to continue to improve and develop a learning model that is able to adapt to the characteristics of students. Thus, teachers are expected to consider the application of the Differentiated Discovery Learning model in teaching traditional decorative drawing. Further research can also make these results the basis for further exploring learning models that are flexible and adaptive to the learning needs of students.

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