

The Application of Discovery Learning Model to Improve the Character of Democracy and Learning Outcomes For Elementary Students

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ABSTRACT

This study's overarching goal is to ascertain whether or not the discovery learning paradigm may improve democratic traits and academic performance. In this study, action research was conducted in the classroom over the course of two cycles. Rural primary schools in Sidoarjo were the focus of this study. Data on learning outcomes were collected using a questionnaire, and data on democratic character value was collected by a test of learning outcomes administered at the end of each cycle. This study made use of descriptive statistics for its analysis of data. Class IV students' learning outcomes and their appreciation for democratic principles both improve with the implementation of this discovery learning paradigm. The calculated mean shows the answer. Over and above the researcher-determined KKM of 75.0, students' democratic character is typically valued at 57.0 after the first cycle, 63.23 after the second, and 77.14 after the third. In addition, the researcher finds that the average value of student learning outcomes rises from 78.0 in the first cycle to 80.47 in the second cycle to 89.04 in the third cycle, all while remaining above the KKM, which is 85.0. The quality of democracy and educational outcomes for students can both benefit from the use of the discovery learning approach.

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1. INTRODUCTION

Education is a social activity that can produce changes in students by interacting with several people in their social life by interacting between students and teachers, between teachers and guardians of students, between teachers and principals, and with the community (Wijaya et al., 2019). By means of education, they have the ability to increase their individual potential and can shape their personality with the skills and talents needed to establish social activities in the community so that they can work,

compete and interact in social life. Education is an effort carried out by families, communities, and the government by guiding, teaching, and providing training obtained through learning at school and outside the school to prepare students who can be the right person in the living environment in the future. As well as the changes that have occurred in society, the change in learning patterns from teacher centred to Student-Centered is a marked change in the world of education since the 20th century which has been implemented in the United States as a democratic education movement (Rosyada, 2020).

Schools, as academic and social particles, must provide guidance for the formation of good character for their students. Use of character education, it fixes to improve the results and quality of education in schools in order to work up the achievement of student character and moral formation in compliance with graduation competency standards. To intensify the value of democratic character, every child can have the ability to comprehend with others, be given to understand of chosen problem, and convey ideas and solve problems that may exist. Thus, the character of democracy and learning outcomes are obtained based on students' understanding of the concept of learning to solve a problem in classroom learning. Democracy is the way of thinking, acting, and behaving to assess and determine the rights and obligations of oneself and others. To schools can be democratic individuals, they can be reorganized to the mandate of UU Nomor 20 Tahun 2003 concerning the National Education System. The implementation of activities in schools should be in accordance with democratic values. Basically, democracy exists because of mutual respect and respect for each other in the community (Wijaya et al., 2019).

The researchers tried to apply an active learning model to solve the problems above. There is a lot of active learning that has the potential to improve students' democratic skills and learning outcomes for students. This is one of the learning models that will be applied, namely the *discovery learning* model, which allows active learning by finding solutions or experimenting individually or in groups. It is a model that will leave a lasting impression on the mind so that the lessons can be remembered for a long time. By using the *discovery learning* model, it is able to increase the value of democratic character and learning outcomes students in one of the elementary schools in rural areas in Sidoarjo. This study aims to apply the *discovery learning* model to the learning process to increase the value of democratic character and learning outcomes in an elementary school in a rural area in Sidoarjo. The *discovery learning* model can be interpreted as active learning that is able to present problems related to everyday life as an alternative to the learning process for students (Syam, 2021). In general, the stages in the application of this *discovery learning* model have six syntaxes, namely: stimulation, problem statement (problem identification), data collection (data compilation), data processing (data converting), verification (proof), and draw conclusions (Fatihah et al., 2020). The discovery learning model has been generally used for group trials accomplished to test the ability of democratic character values from several other character values. The democratic character is qualified with encouraging students to have an attitude of nationalism, being responsible, respecting the opinions of others, not making unilateral decisions immediately, being able to communicate beforehand in order to avoid destructive tendencies that make fights such as fighting stealing, slandering, and crime other crimes (Luthfi et al., 2021). By using the *discovery learning* model, it is expected that it can improve the character of democracy and the learning outcomes of students at an elementary school.

Student character is an action that students take individually based on impulsive actions or actions that do not need to be thought about in advance because these actions occur because of a habit. Attitudes are born because of someone's actions and actions towards something that is heard, done and seen because attitudes are born based on words and actions (Ginting & Siagian, 2020). Democracy is a way of behaving, thinking and acting to determine values for oneself and others who have rights and

obligations. This can be established when organizing a change of leader, recognizing and acknowledging the existence of diversity, resolving problems institutionally and peacefully, and can guarantee the encouragement of justice (Kurniawan, 2017). The character of democracy can produce democracy in life, so it is advisable to create behaviour or actions that can make a policy and an idea when deciding by thinking fairly and fairly through discussions that can take all rights and obligations. The indicators of democratic values. According to Hendri B Mayo, suggesting indicators in the character of democracy, among others, can end a problem until it is finished in a prosperous and institutionalized way, guarantee the implementation of a prosperous transition in changes to the community system, carry out systematic leadership changes, able to admit and assumes that they are used to diversity (variety), ensuring the upholding of justice. Developing student, character values will affect learning outcomes. Learning outcomes are the embodiment or development of potential skills or capacities that exist within a person. This occupation of learning outcomes can be seen from the origin of behaviour in a person, both attitudes to the mastery model, knowledge, ability to express thoughts and motor skills. Learning outcomes mean the transition of student attitudes due to learning (Winangun, 2020)

The roots of the problems seen in grade IV students at one of the elementary schools in rural areas in Sidoarjo include: (a) the low level of understanding of grade IVA students, (b) lack of confidence in expressing their opinions and ideas, (c) the democratic character of class IV students is still lacking because they lack respect for the opinions of others. The problems that exist above require a solution to solve them. The solution that can be given is by applying active learning. In its development, the learning model has many variations of active learning models that have the potential to improve learning outcomes for class IVA. This study aims to apply or describe the steps of the *discovery learning* model in increasing the value of democratic character and learning outcomes through the application of *discovery learning* models. Using this learning model is a learning method that requires teachers to be more creative in creating situations that cause students to learn actively in determining knowledge it self.

The results of previous research using the *discovery learning* model can improve critical thinking skills and student learning outcomes in learning (Oktaviani et al., 2018). By using the discovery learning model, students can actively develop student learning by finding their own ideas and investigating themselves, and the results are easy to remember. They can also learn to think analytically and try to solve their own problems that have been faced ((Luthfi et al., 2021). Students also have activeness in learning when the teacher applies the *discovery learning* model, therefore, teachers can use this *discovery learning* model to be able to increase learning activities at school (Anisa et al., 2021). The application of this *discovery learning* model has proved that it can improve creative thinking skills and student learning outcomes when understanding LKS, and students also easily find concepts and can present the results of discussions well (Wulandari et al., 2018). Teachers can also observe difficulties in the problems faced by students in classroom learning by using the *discovery learning* model and can improve the quality of teachers to cultivate good characters, which are very useful in students' daily lives (Andriani & Wakhudin, 2020).

From the series of problems above, the researcher can convey, namely, how to increase the value of democratic character and student learning outcomes by using the *discovery learning* model in class IVA in one of the elementary schools in rural areas in Sidoarjo. The application of the *discovery learning* model, it is expected to increase the value of democratic character and student learning outcomes. Based on the results of interviews that the researchers conducted with the homeroom teacher of class IVA, class IVA students had less confidence in conveying their ideas because of the limitations of hybrid learning which resulted in students being less confident. It is hoped that with the application of this

discovery learning model, students can form democratic character values and have good learning outcomes.

2. METHODS

The research method applied is classroom action research or classroom action research (CAR). The subjects of this study were students of class IVA, with a total of 21 students, consisting of 8 male students and 13 female students. This data collection aims to increase the character of democracy and learning outcomes in theme 6 sub-theme 1 of my material and my ideals by using the discovery learning model. This classroom follow-up study (CAR) was carried out in class IVA in one of the elementary schools in a rural area in Sidoarjo. The results of the data obtained in each research activity are presented descriptively using the average value of the final results of learning activities. The implementation of this research uses two cycles which have four stages, namely planning, implementing observations, and reflection. The data collection techniques used are (1) observation, (2) questionnaire, (3) interview, (4) written test. The researcher used a questionnaire to obtain the average value of the democratic character. Meanwhile, the researcher used a written test to obtain the average value of student learning outcomes for class IVA.

3. FINDINGS AND DISCUSSION

In this classroom action research process, it explains the initial conditions, which consist of collecting data by observation, interviewing class teachers, distributing questionnaires, implementing cycle I, and implementing cycle 2, which consists of stages, namely (1) planning, (2) implementation, (3) observation and (4) reflection.

Pre-cycle



Picture 1. Distribution of questionnaires in the pre-cycle

Before conducting the research, the researcher took initial data during class IVA learning at an elementary school in a rural area in Sidoarjo, totalling 21 students on Monday, November 8, 2021. Before the researchers conducted observations, the research instrument had been validated by 2 experts, namely the supervising lecturer, and classroom teachers. After getting validation from the experts, the researchers conducted observations and interviews about the behaviour of the democratic character and the learning outcomes of class IVA students.

Table 1. Character Score Results and Pre-Cycle Learning Outcomes

No	Variable	Indicator	KKM	Final Score Pre-Cycle
1	Democratic Character	The average of observations and questionnaires	75,0	57,0
2	Learning outcomes	The average of observations and evaluation tests	85,0	63,23

Based on the results of the average distribution of the questionnaire in class IVA in precious, namely 57.0 with a target determined by the researcher, that is 75.0 while the average learning outcome of theme 5 obtained from data that has been studied by class teachers is 78.0 with a target determined by the researcher is 85.0. To be able to improve the value of students who still have low scores and students who have got high scores so that they can be maintained, the researcher will carry out research actions consisting of 2 cycles, namely cycle I and cycle II.

Cycle I

Cycle I was held in one meeting on Tuesday, December 14, 2021, in class IVA at an elementary school in a rural area in Sidoarjo. The implementation of one cycle is carried out with a time allocation of 3 x 35 minutes, focusing on the character of democracy and student learning outcomes. The implementation of the first cycle of the class action is carried out in accordance with the predetermined learning plan. The lesson plan emphasizes the *discovery learning* model for the theme 5 sub-theme 3 material about heroism. In this study, the researcher acts as an observer.

1. Planning

Before the researcher conducted a follow-up study of the cycle 1 class, the researcher first prepared a learning device consisting of a syllabus, lesson plans, 1 sheet of lesson plans, modules, evaluation questions sheets consisting of 10 multiple choice questions and 5 essay questions, and a questionnaire consisting of 20 questions. Questions by having question characters such as predetermined indicators of a democratic character. Before the learning tools were applied to the learning process in class IV A, they had been validated by 3 experts, namely lecturers, principals, and teachers. After getting validation from the experts, the researcher proceeded to hold the implementation.

2. Execution

The first cycle was implemented on Tuesday, December 14, 2021, with an allocation of 3 x 35 minutes in class IVA at an elementary school in a rural area in Sidoarjo with a total of 22 consisting of 10 male students and 12 female students.



Picture 2. Application of *Discovery Learning Model Cycle 1*

1) First Activity

Before learning begins, the teacher prepares the media and also practical tools that will be used to teach in the first cycle, and then the teacher greets and invites all students to pray. Then the teacher checks his readiness by filling out the attendance sheet and checking the neatness of the clothes, position, and seat that are in accordance with the learning activities. Then the teacher conveys the stages of the 5M activity.

2) Main Activity

The teacher begins learning by forming study groups consisting of 4-6 students whose group members have been determined by the teacher. Then some tools are given for assignments regarding the material of heroism. The teacher provides materials about heroes in the Hindu, Buddhist, and Islamic eras which are associated with relics, one of which is a mirror of antiquity. From this connection,

the teacher invites students to observe the reflection on the object. Before that, the teacher also prepares a spoon to distinguish the front reflection of the spoon from the back reflection of the spoon and the reflection on the mirror provided by the teacher. After observing the practicum, the teacher asked the students to make a group report on the experimental results, and then the representative of one group presented the results of their discussion to the other groups. After that, the teacher randomizes each group leader to occupy another group and the teacher gives a stimulus about other relics in the form of temples and statues. After studying together about relics in the form of temples and statues, the teacher accompanies students to imagine what are the unique historical relics that have been studied. With that, the teacher asks students to fill out reports on the results of observations and discussions that will be represented by each group to demonstrate the opinions of their groups so that other groups can provide suggestions and opinions.

3) Last Activity

At the end of the lesson, the students and the teacher give conclusions about the learning outcomes and also reflect on today's learning activities. After that, the teacher gave 10 multiple choice and 5 descriptive questions that had been provided by the researcher and filled out the questionnaire provided by the researcher to find out the improvement in the democratic character possessed by grade IVA students in one of the elementary schools in rural areas in Sidoarjo.

3. Observation

In this observation, direct research was conducted with the assistance of 2 people as observers, namely the researcher and research colleagues, to observe the values of democratic character during the learning process. The observer made observations using a questionnaire sheet that had been provided by the researcher. In addition, the researchers also used evaluation question sheets to be distributed to each student to find out the progress of student learning outcomes in grade IVA at an elementary school in a rural area in Sidoarjo.

Table 2. Results of Character Values and Learning Outcomes Cycle 1

No	Variable	Indicator	KKM	Final Score	
				Pre-cycle	Cycle 1
1	Democratic Character	The average of observations and questionnaires	75,0	57,0	78,0
2	Learning Outcomes	The average of observations and evaluation tests	85,0	63,23	80,47

The data above shows the results of the calculation of democratic character observations and also the learning outcomes of class IVA students. In the pre-cycle, the average value of the democratic character questionnaire was 57.0 (low), and the learning outcomes in the pre-cycle were 78.0 (medium). Then after conducting follow-up research in cycle 1, there was an increase and improvement from the results of the calculation of the observation of democratic characters and student learning outcomes. In cycle 1, the average score of democratic character was 63.23 (medium), and the average student learning outcome in cycle 1 was 80.47 (high).

4. Reflection

It can be concluded that the character of democracy and the learning outcomes of grade IVA students in one of the elementary schools in rural areas in Sidoarjo already have an improvement, but there are some improvements in the problems in the first cycle. The researchers decided to continue to

the second cycle which is expected to result in the implementation in the first cycle. II has an increase in the character of democracy and also the learning outcomes of class IVA students.

Cycle II

Cycle II was held in one meeting on Wednesday, January 12, 2022, in class IVA at an elementary school in a rural area in Sidoarjo. The implementation of one cycle is carried out with an allocation of 3 x 35 minutes, focusing on the character of democracy and student learning outcomes. The implementation of the second cycle of class actions is carried out in accordance with the predetermined learning plan. The lesson plan emphasizes the *discovery learning* model for the theme 5 sub-theme 3 material about heroism. In this study, the researcher acts as an observer.

1. Planning

Before the researcher conducted a follow-up study of the cycle 1 class, the researcher first prepared a learning device consisting of a syllabus, lesson plans, 1 sheet of lesson plans, modules, evaluation questions sheets consisting of 10 multiple choice questions and 5 essay questions, and a questionnaire consisting of 20 questions. Questions by having question characters such as predetermined indicators of a democratic character. Before the learning tools were applied to the learning process in class IVA, it had been validated by 3 experts, namely lecturers, principals, and teachers. After getting validation from the experts, the researcher proceeded to hold the implementation.

2. Execution

The implementation of the second cycle was carried out on Monday, January 12, 2021, with an allocation of 3 x 35 minutes in class IVA at an elementary school in a rural area in Sidoarjo with a total of 22 students consisting of 10 male students and 12 female students. In the implementation of the second cycle, it emphasizes and improves the value of democratic character in grade IV students



Picture 3. distribution of questionnaires in Cycle 2

a) First Activity

Before learning begins, the teacher prepares the media and also practical tools that will be used to teach in cycle II, then the teacher greets and invites all students to pray. Then the teacher checks his readiness by filling out the attendance sheet and checking the neatness of the clothes, position, and seat that are in accordance with the learning activities. Then the teacher conveys the stages of the 5M activity.

b) Main Activity

The teacher begins learning by forming study groups consisting of 4-6 students, each determining who their group members are. Then some tools are given for assignments regarding the material of heroism. The teacher provides materials about heroes in the Hindu, Buddhist, and Islamic eras which are associated with relics, one of which is a mirror of antiquity. From this connection, the teacher invites students to observe the reflection on the object. Before that, the teacher also prepares a spoon to distinguish the front reflection of the spoon from the back reflection of the spoon and the reflection on

the mirror provided by the teacher. After observing the practicum, the teacher asked the students to make a group report on the experimental results, and then the representative of one group presented the results of their discussion to the other groups. After that, the teacher randomizes each group leader to occupy another group, and the teacher gives a stimulus about other relics in the form of temples and statues. After studying together about relics in the form of temples and statues, the teacher accompanies students to imagine what are the unique historical relics that have been studied. With that, the teacher asks students to fill out reports on the results of observations and discussions that will be represented by each group to demonstrate the opinions of their groups so that other groups can provide suggestions and opinions.

c) *Last Activity*

At the end of the lesson, the students and the teacher give conclusions about the learning outcomes and also reflect on today's learning activities. After that, the teacher gave 10 multiple-choice evaluation questions and 5 description questions that had been provided by the researcher and filled out a questionnaire that had been provided by the researcher to find out the improvement of the democratic character possessed by grade IVA students.

3. *Observation*

In this observation, direct research was carried out with the assistance of 2 people as observers, namely the researcher and research colleagues, to observe the value of democratic character during the learning process. The observer made observations using a questionnaire sheet that had been provided by the researcher. In addition, researchers also used evaluation question sheets to be distributed to each student to determine the progress of student learning outcomes for class IVA.

Table 3. Results of Character Values and Learning Outcomes Cycle 2

No	Variable	Indikator	KKM	Final Score		
				Pre-Cycle	Cycle 1	Cycle 2
1	Democratic Character	The average of observations and questionnaires	75,0	57,0	78,0	87,14
2	Learning Outcomes	The average of observations and evaluation tests	85,0	63,23	80,47	89,04

Based on the data above shows the results of the calculation of democratic character observations and also the learning outcomes of class IVA students. In the pre-cycle, the average value of the democratic character questionnaire was 57.0 (low), and the learning outcomes in the pre-cycle were 78, 0 (medium). Then after conducting follow-up research in cycle 1, there was an increase and improvement from the results of the calculation of the observation of democratic characters and student learning outcomes. In cycle 1, the average score of democratic character was 63.23 (medium) and the average student learning outcome in cycle 1 was 80.47 (high). To achieve the target set by the researcher, which was continued in the second cycle of research, in the second cycle, there was an increase in the average value of the democratic character, which was 77.14 (high) than for learning outcomes increased to 89.04 (high). In the second cycle, the KKM target has been determined by the researcher, so the researcher can be dismissed in the second cycle.

4. *Reflection*

Using the *discovery learning model* can improve the character of democracy and also the learning outcomes of grade IVA students in an elementary school in a rural area in Sidoarjo and have met the

KKM target that has been determined by the researcher. So the researcher decided to stop the application in cycle II.

In classroom action research (CAR) which was conducted in one elementary school in a rural area in Sidoarjo, this study used a *discovery learning* model which was carried out in two meetings in 2 cycles. The improvement of the democratic character and learning outcomes using the *discovery learning* model is strengthened by previous research, which revealed that the application of research using the *discovery learning* model and the results increased (Oktaviani et al., 2018) and (Luthfi et al., 2021). The results obtained from this study, researchers also succeeded in improving learning outcomes, especially the theme of 5 heroic materials. Students are able to get results by achieving above the KKM 75.0 and able to improve the character of democracy to get results above the KKM 85.0. At each meeting, the researcher presents an assignment, namely by discussing 4-6 students to complete the task, which will later be demonstrated. In cycle 1, before carrying out teaching and learning activities using the *discovery learning* model, the teacher first provides directions on how to use the *discovery learning* model to students. This will help students to understand how to carry out their duties during learning. In practice, students can follow the learning process by using the *discovery learning* model in accordance with what was instructed by the teacher and also the researcher. The increase in the value of democratic character by applying the *discovery learning* model can also be proven by increasing the learning outcomes of grade IVA students in one of the elementary schools in rural areas in Sidoarjo in each cycle. In line with the theory of learning outcomes according to the level of dominance of learning outcomes in these subjects, they are symbolized by the alphabet. Learning outcomes mean the transition of student attitudes due to learning (Winangun, 2020). Behavioural switching is caused by having mastered a number of materials while learning in the teaching process (Anitah, 2014).

The results of the analysis proved that the value of democratic character and student learning outcomes in grade IVA could increase due to the increase in teacher performance and student activities during class learning. The completeness of students in cycle two above the KKM amounted to 22 students with overall democratic character values above the average (77.14) and had an increase in learning outcomes above the average (89.04). In addition, this research strengthens previous research, such as the research conducted by (Luthfi et al., 2021), whereby applying the *discovery learning* model can increase learning activity in thematic learning in class V, which increases to 79.53%. The *discovery learning* model is also used by (Oktaviani et al., 2018), whereby applying the *discovery learning* model can improve critical thinking skills and mathematics learning outcomes in class V, which increase to 84.62%.

From these data, it can be concluded that learning can be said to increase. Students' completeness in cycle II above the KKM is 22 students. From the data, it can be concluded that learning has increased from the results that have reached the predetermined success indicators, namely the value of democratic character and the learning outcomes of class IVA students above the KKM that have been determined by the researcher. Thus, this CAR is proven to be successful. The increase in the value of democratic character and student learning outcomes for class IVA is due to the *discovery learning* model that can actively involve students in learning and is more focused on students. Students work by deliberation, and discuss all problems that have been given by the teacher and students can learn in earnest. This also makes students more relaxed and not tense in receiving the material that has been explained by the teacher. After that, students are also taught to dare to demonstrate and present their work in front of the class.

Based on the research described, the use of *discovery learning* models in class IVA can increase the value of democratic character and learning outcomes. The advantages of this study compared to previous research, namely in this study the use of the *discovery learning* model by measuring students'

ability in democracy in order to have an increase in democratic character values and learning outcomes. The learning outcomes of class IVA students were measured using a written test that had been provided by the researcher. The value of the democratic character is measured using a questionnaire test that has been provided by the researcher. By giving a questionnaire to measure the value of democratic character, students are more enthusiastic about following the learning process well and can enjoy the learning process, and by using the discovery learning model, student learning outcomes can increase from good to great category.

4. CONCLUSION

The analysis results proved that the value of democratic character and student learning outcomes in grade IVA could increase due to the increase in teacher performance and student activities during class learning. Completeness of students in the second cycle above the KKM amounted to 22 students, from the data it can be concluded that learning has increased from the results that have reached the predetermined success indicators, namely the value of democratic character and the learning outcomes of class IVA students above the KKM that have been determined by the researcher. The limitations of the research on the application of the *discovery learning* model are found during the data collection process, the response and activeness of students during learning resulting in a lack of concentration in understanding the material. As for other factors in filling out the questionnaire, there were student responses that tended to be lacking in the statements that had been given, this resulted in inconsistent filling in the questionnaires and tests that had been given by the researcher. The potential for advanced researchers is to be able to prepare more thoroughly to condition the class to remain calm and focus on the material given. It is hoped that researchers will develop their ideas further in order to get the expected and better results.

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