



## Efforts to Improve Learning outcomes the Beautiful Theme of Togetherness Through Learning Models Discovery Learning Grade IV Elementary School

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### ABSTRACT

This research aims to improve student learning outcomes using the Discovery Learning learning model on the theme The Beauty of Togetherness, the sub-theme Togetherness in Diversity in class IV of Sei Beras Sekata Catholic Private Elementary School for the 2022/2023 Academic Year. This research is Classroom Action Research (PTK), the subjects in this research are 25 class IV students, consisting of 11 male students and 14 female students. The data collection techniques used are observation and tests. The results of this research indicate an increase in student learning outcomes. The results of the research in cycle I were 8 students who got a pass mark or 32%, while 17 students who did not complete it or 68% with an average score of 61.96. In Cycle II there were 22 students who met the criteria for completeness or 88%, while there were 3 students who did not complete it or 12% with an average score of 80.32. So there was an increase from cycle I compared to cycle II and it had fulfilled the specified completeness. Furthermore, teacher activity in cycle I observation obtained an average of 72% and in cycle II it increased to 92%, while student activity in the learning process in cycle I obtained an average of 60% and in cycle II it increased to 90%.

**Keywords:** *learning outcomes, discovery learning model*

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### INTRODUCTION

Education is a very important tool in life, where education aims to change weak human resources to be more advanced. Education can also be interpreted as all life experiences in various environments that last a lifetime and positively affect individual growth and development. Education is the process of changing the attitude and behavior of a person or group of people in an effort to mature humans through teaching and training efforts. Education can develop and improve quality human resources. Indonesia's national education system in the present and for the future will certainly be characterized by rationality, but still consider the foundation of life values derived from Indonesia's own culture. The values of national and state life need to be the main consideration in formulating the national education system. Discovery learning is one of the learning models used in modern constructivist approaches. In this learning students are encouraged to learn on their own through active involvement through various concepts and principles. Teachers encourage students to have experiences and experiment by allowing them to discover principles or concepts for themselves. Thematic learning is used as an approach to the 2013 elementary / MI curriculum. The Discovery model is learning that involves students in the mental learning process through exchanging opinions, by discussing, reading alone and trying alone, so that children can learn on their own.

The following can be seen from the results of the daily Thematic test scores of Class IV Sei Beras Sekata Catholic SDS for the 2022/2023 learning year obtained by students not in accordance with the student learning completeness standards in the following table.

**Table 1. The Beautiful Theme Value of Togetherness in Grade IV**

No	Subject	KKM	Number of Students	Percentage (%)	Information
1.	Bahasa Indonesia	>70	10	43,48%	Complete
		<70	13	56,52%	Incomplete
2.	IPA	>70	8	34,78%	Complete
		<70	15	65,22%	Incomplete
3.	PPKn	>70	11	47,82%	Complete
		<70	12	52,18%	Incomplete

From the table above, it is known that student learning outcomes in learning the theme of My Residence Area obtained in the even semester of 23 students at the time of the formative test, in incomplete Indonesian learning 13 students or 56.52% and those who completed 10 students or 43.48% who achieved KKM, in incomplete science 15 students or 65.22% and those who completed 8 students or 34.78% who achieved KKM, in incomplete Civics 12 students or 52.18% and those who completed 11 students or 47.82% who reached KKM. Minimum Completeness Criteria (KKM) is 70 in Thematic learning. This means that the completeness of learning outcomes in thematic learning is very low. According to the Homeroom IV teacher, the problem of incompleteness of student learning outcomes occurs every semester. Thus, seeing from the facts that have been described, it is necessary to improve learning so that student learning outcomes increase in thematic learning. By looking at the problems above, the researcher makes changes in improvements in the learning process. One of them is a solution by applying the Inside Discovery Learning learning model. The purpose of researchers is to provide solutions by applying this Discovery Learning model to improve the learning outcomes of students to increase, so as to achieve the success of the process and learning outcomes of students.

## LITERATURE REVIEW

### Understanding the Discovery Learning Learning Model

In this learning learning activities are designed in such a way that students can discover concepts and principles through their own mental processes. According to Stokes et al in (Hamzah et al, 2020: 386) Discovery Learning is a model to develop active learning methods by discovering yourself, investigating yourself, then the results obtained will be faithful and long-lasting in memory. According to Hamalik in (Prasetyo & Abduh 2021: 1718 - 1719) discovery learning is a model to develop active student learning by finding and investigating, so the results obtained will last long in memory will not be easily forgotten by students. According to Wulan Sari HS (2021: 90) the Discovery Learning learning model is a series of learning activities that emphasize the process of thinking critically and analytically to find and find the answer to a problem in question. The thought process itself is usually done through questions and answers between teachers and students.

Based on the above understanding, it can be concluded that discovery learning is a model for developing active student learning by discovering themselves, investigating for themselves, then the results obtained will be faithful and durable in memory, will not be easily forgotten by students. By learning discovery, learners can also learn to think critically and analyze and try to solve their own problems at hand. This habit will be transferred in daily life both in the school and social environment.

### Steps for implementing the Discovery Learning Learning Learning Model

According to Shah (Radiyah, 2021: 10-13) in applying discovery learning in the classroom, there are several procedures that must be carried out in teaching and learning activities in general as follows:

1. Stimulation

At this stage students are faced with something that raises a question mark, then proceed not to generalize, so that the desire to investigate themselves arises. In addition, teachers can start PBM by asking questions, encouraging reading books, and other learning activities that lead to problem-solving preparation.

#### 2. Problem Statement

After stimulation, the next step is for the teacher to give students the opportunity to identify as many problem agendas as possible that are relevant to the subject matter, then one of them is selected and formulated in the form of a hypothesis (temporary answer to the problem question).

#### 3. Data collection

When the exploration takes place, the teacher also gives the students the opportunity to gather as much relevant information as possible to prove whether or not the hypothesis is true. At this stage it serves to answer questions or prove whether or not the hypothesis is true. Thus students are given the opportunity to collect (collection) various relevant information reading literature.

#### 4. Data Processing

All reading information is processed, randomized, classified, tabulated, even if necessary calculated in a certain way and interpreted at a certain level of confidence. Data Processing is also called coding / categorization which functions in the formation of concepts and generalizations.

#### 5. Verification

At this stage, students conduct a careful examination to prove whether or not the hypothesis set earlier is true with alternative findings related to the processed data. According to Bruner, verification aims that the learning process will run well and creatively if the teacher provides opportunities for students to find a concept, theory, rule or understanding through examples he encounters in his life.

#### **Generalisation**

The generalization stage is the process of drawing a conclusion that can be used as a general principle and applies to all the same events or problems, taking into account verification. After drawing conclusions, students should pay attention to the process of generalization, which emphasizes the importance of mastery of the lesson over broad meanings and rules or principles, which underlie one's experience, as well as the importance of the process of organizing and generalizing those experiences.

### **Advantages and disadvantages of Implementing the Discovery Learning Learning Model**

This Discovery Learning model has advantages and disadvantages in application in the classroom and in schools, here are the advantages and disadvantages of the Discovery Learning model as follows: The advantages of applying Discovery Learning (Ministry of Education and Culture, 2013: 32) in (Radiyah, 2021: 7-10); a) Assist students to improve and improve therapeutic skills and cognitive processes. Discovery is key in this process, depending on how one learns, b) The knowledge gained through this model is very personal and powerful because it strengthens understanding, memory, and transfer, c) Generate a sense of pleasure in students, because of the growth of a sense of investigating and succeeding, d) This model allows students to progress quickly and at their own pace, e) Cause students to direct their own learning activities by involving their own intellect and motivation, f) Help students strengthen their self-concept, as they gain confidence in cooperation with others, g) Student-centered and the teacher plays an active role together in bringing out ideas. Even teachers can act as students, and as researchers in discussion situations, h) Help students eliminate sceticism (doubt because it leads to final and certain or definite truths), i) Students will understand basic concepts and ideas better, j) Assist, develop memory and transfer to new learning situations, k) Encourage students to think and work on their own initiative, l) Encourage students to think intuitively and formulate their own hypotheses, m) Provide decisions that are intrinsic, n) The learning situation becomes more aroused, o) The learning process includes fellow aspects of students leading to the formation of a whole person, p) Increase the level of appreciation in students, q) The possibility of students learning by utilizing different types of learning resources, r) Can develop students learn to develop individual talents and skills.

The weaknesses of the application of Discovery Learning (Ministry of Education and Culture, 2013: 32) in Radiyem, (2021: 7-10) ; a) Raises the assumption that there is a readiness of the mind to learn. For students who are less intelligent, will have difficulty abstracting or thinking about revealing relationships between released or oral concepts, which in turn will cause frustration, b) It is inefficient to teach a large number of students because it takes a long time to help them find theories or other problem solving, c) The expectations contained in this model can be shattered by dealing with students and teachers with old ways of learning, d) Teaching with the Discovery Learning model to develop understanding while developing aspects of concepts, skills as a whole receive less attention, f) In some disciplines, there is a lack of facilities to measure the tasks that have been developed by students, e) Does not provide opportunities for thinking that students will find because they have been selected in advance by the teacher.

## METHOD

In conducting this study, types of The research used is research class action (PTK). Classroom action researcher is a problem-solving that Utilizing concrete actions in the form of cycles in where through the process of solving ability problem. This research aims to improve student learning outcomes on the theme of the Beauty of Togetherness by using Discovery Learning in the classroom IV Sei Beras Sekata Catholic Private Elementary School. The research was conducted at Sei Beras Sekata Catholic Private Elementary School Learning year 2023/2024. The subjects of this study are students grade IV Sei Beras Sekata Catholic Private Elementary School Years of study 2023/2024 with 25 students person. The object of this study using the Discovery Learning learning model can improve learning outcomes.

### Instrument Validation

An instrument is said to be valid if the instrument used can measure what it wants to measure. Validation of research instruments aims to show the achievement or success of a test instrument. In this study, instrument validation used data validity and data reliability test techniques.

### Instrument Data Validation Test

Validation tests can be carried out by researchers so that the instruments made can be said to be valid. Validity in this study is carried out by testing and checking its validation, so that the data can be accounted for. This validity test is used in validating tests and questionnaires using the same formula. The definition of validity shows the accuracy and suitability of measuring instruments used to measure variables. A measuring instrument can be said to be valid if it is really in accordance with answering carefully about the variable being measured. To prove the validity of the data is feasible or not, the test questions use the formula:

Valid = r hitung > r tabel

$$r_{xy} = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{\{N\sum X^2 - (\sum X)^2\}\{N\sum Y^2 - (\sum Y)^2\}}} \dots\dots\dots \text{Widoyoko (2014:241)}$$

Information:

- r<sub>xy</sub> = correlation coefficient between variable X and Variable Y
- N = Number of test takers
- X = Trial result value
- Y = Daily mean value

### Instrument Reliability Test

Question reliability is a measure that expresses the level of consistency of a test question. To measure the level of efficacy of this problem used a comparison of Alpha Cronbach's formula used expressed by:

$$r_{11} = \left( \frac{k}{k-1} \right) \left( \frac{vt - \sum pq}{vt} \right) \dots\dots\dots \text{Widoyoko (2014:263)}$$

Information:

r<sub>11</sub> = Instrument reliability

k = Number of question details  
 vt = total variance  
 p = proportion of subjects who answered the item correctly  
 q = proportion of subjects who answered the item incorrectly ( q = 1-p)  
 $\sum pq$  = sum of multiplication results between p and q  
 N = number of items

The resulting reliability coefficient on Intervention question items Jihad & Haris collation items (2012:180) as the table below. To interpreting the meaning of a reliability coefficient can be The following guidelines are used:

**Tabel 2. Intervention on the Correlation Coefficient**

Correlation Coefficient	Criterion
$0,90 < r_{xy} < 1,00$	Very high
$0,70 < r_{xy} < 0,90$	High
$0,40 < r_{xy} < 0,70$	Sufficient
$0,20 < r_{xy} < 0,40$	Low
$r_{xy} < 0,20$	Very low

**Data Analysis Techniques.**

The data analysis used is in the form of a test of student learning outcomes which is used after the study is carried out during the learning process using observation sheets prepared to collect data. This analysis is used to find out whether or not it was done using the following formula.

**Implementation of learning.**

1. To calculate the results of the implementation of learning in students can be used the following formula:  
 Value = (earned score)/(maximum score) x 100 ..... Jihad & Haris (2018:130)  
 With the following criteria:

**Table 3. Student Activity Assessment Criteria**

Value	Criterion
90-100	Very good
70-89	Good
50-69	Enough
30-49	Less
10-29	Very less

(Source: Jihad & Haris, 2018:13)

2. To calculate the results of the implementation of learning in teachers can be used the following formula:  
 Grade= (earned score)/(maximum score) x 100%

**Table 4. Teacher Activity Assessment Criteria**

Assessment criteria	Information
A= 81-100%	Very good
B= 61-80%	Good
C=41-60%	Enough
D=21-40%	Less
E=0-20%	Very less

Source: Tampubolon (2016:166)

### Completeness of Student Learning Outcomes

#### 1. Individual completeness

Students are said to have completed learning if students have reached the minimum completeness criteria (KKM) set by the school, which is 65. To calculate the completeness of student learning can be calculated as follows: Student grade = (total score)/(maximum score) × 100..... (Trianto, 2019:241)

With the following information:

KB : Completeness of learning

Q : Number of scores obtained

Tt : Total score

The calculation results are adjusted to the criteria for student learning completeness which are grouped into two categories: complete and incomplete.

With the following criteria:

**Table 5. Learning Outcomes Completeness Criteria**

Completeness table	Information
≥ 70	Complete
≤ 70	Incomplete

#### 2. Classical completeness.

Tampubolon (2014: 166) stated, students are said to have completed their learning classically at least if in the class there are 75% of students who have completed reaching KKM 65. To find out the percent of students who have studied completely classically can use the formula:

$$P = (\text{earned score})/(\text{maximum score}) \times 100\% \dots\dots\dots (\text{Aqib et al, 2021:41})$$

Information

P = classical completeness of observations

**Table 6. Classical Completeness Assessment Criteria**

Assessment criteria	Information
A = 81-100%	Very high
B = 61-80%	High
C = 41-60%	Medium
D = 21-40%	Low
E = 0-20%	Very low

#### c. Average learning outcomes

Data analysis is used to determine the success or failure of the actions taken in the study. In accordance with the purpose of the study, to calculate the class average for data contained in one class, it can be calculated by the formula:

$$\chi = (\sum X)/(\sum N) \dots\dots\dots (\text{Aqib et al, 2021:40})$$

Information:

$\chi$  = average value

$\sum \chi$  = sum of all student grades

$\sum N$  = number of students

## RESULTS AND DISCUSSION

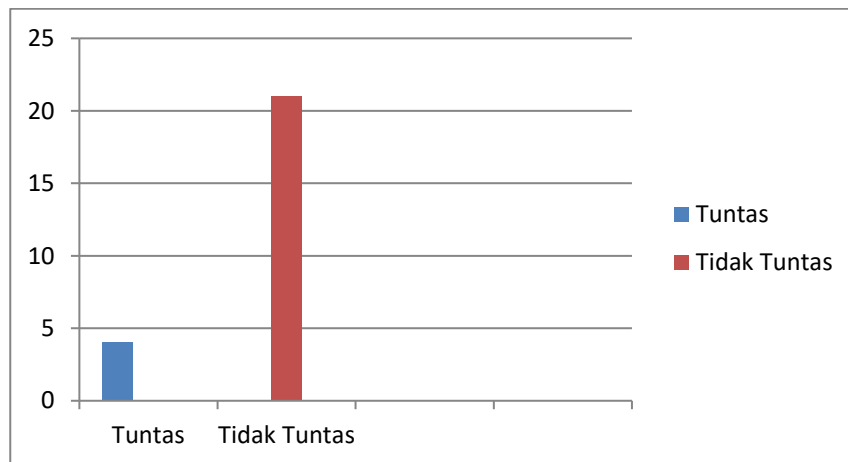
### Completeness of individual student learning outcomes on the Pretest

The study began by giving tests to students with a total of 30 questions, to find out the initial abilities of students and also to find out the difficulties experienced by students in understanding the subject matter to be explained. The formula for calculating individual completeness is as follows: The completeness of individual student learning outcomes in the pre-test can be seen in the table below:

**Table 7. Description of Student Individual Completeness on the Pretest**

No	Number of students	Information
1	4 Students	Complete
2	21 Students	Incomplete

The completeness of individual student learning outcomes in the initial pretest action can be seen in the diagram below:



**Figure 1. Diagram of Completeness of Student Learning Outcomes Individually on the Pretest**

### Completeness of student learning outcomes classically on the pretest

After knowing individual completeness, then classical completeness seen from the results of student learning in one class. The completeness of student learning outcomes classically can be seen in table 8. Below:

**Table 8. Completeness of Student Learning Outcomes Classically on the Pretest**

Learning Completeness	Pre Cycle	
	Number of Students	Presentation
Complete	4 Students	16%
Incomplete	21 Students	84%
Number of Students	25 Students	100%

### Average Student Learning Outcomes on the Pre Test

From the description above, the average student learning outcomes before applying the Discovery Learning Model on the Beautiful Theme of Togetherness Sub-Theme 2 Togetherness in Learning Diversity 3 and 4 obtained 51.88 results, these results were still relatively low. To improve this, the researcher took action by applying the Discovery Learning Model to the Beautiful Theme of Togetherness Sub-theme 2 Togetherness in Learning Diversity 3 and 4.

### Completeness of individual student learning outcomes in cycle I

From the learning results obtained by researchers in classroom action research (PTK) in cycle I at Sei Beras Sekata Catholic Elementary School grade IV on the Beautiful Theme of Togetherness Sub-theme 2 Togetherness in Learning Diversity 3 and 4 with Media Discovery Learning, based on the minimum criterion value (KKM) of 70, the completeness of individual student learning outcomes is obtained as shown in table 9.

**Table 9. Description of Individual Student Completeness in Cycle I**

No	Number of Students	Information
1	8	Complete
2	17	Incomplete

### Completeness of student learning outcomes classically in cycle I.

After knowing the completeness of the individual, then the completeness of classical learning outcomes seen from the results of student learning in one class. Students who are said to have completed their learning outcomes classically if in the class there are 70% of students who get complete scores and achieve scores below the Minimum Completeness Criteria (KKM) that have been set. The completeness of student learning outcomes classically can be seen as follows. **Table 10. Completeness of Student Learning Outcomes Classically in Cycle I**

Learning Completeness	Pre Cycle	
	Number of Students	Presentation
Complete	8 Students	32%
Incomplete	17 Students	68 %
Number of Students	25 Students	100%

### Average Student Learning Outcomes in Cycle I

Based on the data obtained in the first cycle, it can be seen that out of 25 students after being given action, namely by using image media, it showed that in the first cycle there were 8 students who completed their learning outcomes with a percentage of 32%, while as many as 17 students did not complete their learning outcomes with a percentage of 68% and the average grade score was 61.96.

### Completeness of individual student learning outcomes cycle II

From the learning results obtained by researchers in the Classroom Action Research (PTK) in the first cycle at Sei Beras Sekata Catholic Elementary School Class IV on the Beautiful Theme of Togetherness Sub-Theme 2 Togetherness in Diversity using the Discovery Learning Model, there are still many students who have not completed and have not reached KKM, which is as many as 17 students. In the second cycle, student learning outcomes have increased, namely students who have completed learning and reached KKM as many as 22 students and those who have not completed and have not reached KKM as many as 3 students. The



completeness of individual student learning outcomes in cycle II can be seen in the table below:

**Table 11. Description of Student Individual Completeness in Cycle II**

No	Number of Students	Information
1	22	Complete
2	3	Incomplete

Student score = (score obtained by students) / (maximum score of questions) x 100

Student score =  $2.008/25 = 80,32$

### Completeness of Student Learning Outcomes Classically in Cycle II

Based on the learning outcomes obtained by researchers in the first cycle of actions, student learning outcomes are classically incomplete because they have not reached 70% but only reached 32%. In the implementation of cycle II there was an increase in student learning outcomes classically, namely 88% with very high criteria. For more details can be seen in table 12.

**Table 12. Completeness of Student Learning Outcomes Classically in Cycle II**

Learning Completeness	Pre Cycle	
	Number of Students	Presentation
Complete	22 Students	88%
Incomplete	3 Students	12%
Number of Students	25 Students	100%

## DISCUSSION

Based on the results of research conducted by researchers with the Discovery Learning learning model can improve student learning outcomes on the theme of Beautiful Togetherness grade IV of Sei Beras Sekata Catholic SDS Learning year 2023/2024, it can be concluded as follows: By applying the Discovery Learning learning model to the theme of Beautiful Togetherness, it can improve student learning outcomes and has met the minimum completeness criteria (KKM) set by The school is 70. This can be seen from the percentage of completeness of individual, classical, and average student scores, namely; In the pretest, students individually completed 4 people, classically it was 16% with an average score of 51.88. In the first cycle individually, 8 people were completed, classically 32% were completed with an average of 61.96. In cycle II individually 22 people were completed, classically 88% with an average of 80.32.

The implementation of learning with the Discovery Learning learning model on the theme of Beautiful Togetherness of grade IV SDS Katolik Sei Beras Sekata The 2023/2024 learning year is categorized as good. This can be seen from the observation of teacher activity in cycle I by 72% and in cycle II increased to 92%. The implementation of learning with the Discovery Learning learning model in grade IV of Sei Beras Sekata Catholic SDS on the theme of Beautiful Togetherness is categorized as good. This can be seen from the results of student observation activities in cycle I by 60% and in cycle II increased to 90%.

## CONCLUSIONS AND RECOMMENDATION

Hasil penelitian ini menunjukkan adanya peningkatan hasil belajar siswa. Hasil penelitian pada siklus I siswa yang mendapat nilai tuntas sebanyak 8 orang siswa atau 32%, sedangkan siswa yang tidak tuntas sebanyak 17 orang atau 68% dengan nilai rata-rata 61,96. Pada Siklus II siswa yang memenuhi nilai kriteria ketuntasan ada sebanyak 22 orang atau 88%, sedangkan siswa yang tidak tuntas ada sebanyak 3 orang atau 12% dengan nilai rata-rata 80,32. Maka terjadi peningkatan dari siklus I di dibandingkan pada siklus II dan telah memenuhi ketuntasan yang sudah di tentukan. Selanjutnya kegiatan guru pada observasi siklus I memperoleh rata-rata sebesar 72% dan pada siklus II mengalami peningkatan menjadi 92%, sedangkan aktivitas siswa pada proses pembelajaran siklus I memperoleh rata-rata sebanyak 60% dan pada siklus II telah mengalami peningkatan menjadi 90%.

From this study, several conclusions can be drawn as follows: 1. Research conducted by researchers by applying the Discovery Learning Model on the Beautiful Theme of Togetherness Sub-theme 2 Togetherness in Diversity in grade IV, can improve student learning outcomes and student scores have met the minimum completeness criteria (KKM) set by the school, 2. The implementation of the application of learning by applying the Discovery Learning Model on the Beautiful Theme of Togetherness Sub-theme 2 Togetherness in Diversity in grade IV of Sei Beras Sekata Catholic Elementary School for the 2023/2024 Learning Year has gone well. This can be seen from the increase in observations that occur in teacher and student activities.

Based on the results of the study above, suggestions that can be given by researchers are as follows:

### 1. For Schools

Gaining new knowledge as input for the school to recommend learning using Discovery Learning media to teachers to be applied in teaching and learning activities in the classroom to improve student learning outcomes.

### 2. For Teachers

To improve student learning outcomes, teachers are expected to apply learning using Discovery Learning media as reference material to improve student learning outcomes, as well as to improve teacher performance. Student success is the success of teacher performance.

### 3. For the next researcher.

For further researchers, hopefully the results of this research can be redeveloped so as to produce new findings related to learning using Discovery Learning media and can be used as a reference for carrying out learning activities in terms of improving student learning outcomes and at the same time adding insight into student thinking.

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