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Discovery Learning with a Teaching at Right Level Approach Improves Civics Learning Outcomes of Fourth Grade Elementary School Students

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ABSTRAK

Hasil belajar pada mata pelajaran PKn siswa sekolah dasar masih rendah. Hal ini dikarenakan guru tidak menggunakan model pembelajaran yang sesuai dengan gaya belajar siswa. Maka penelitian ini bertujuan untuk membuktikan pengaruh Discovery learning Berpendekatan Teaching at Right Level (TaRL) terhadap Hasil Belajar PKn Kelas IV. Metode yang digunakan dalam penelitian ini adalah kuantitatif menggunakan pendekatan Eskperimen Semu (Quasi Eksperimental Desain). Populasi dalam penelitian ini adalah seluruh kelas IV yang terdiri dari kelas IV A dan kelas IV B. Sampel penelitian ini adalah siswa kelas IV A yang berjumlah 23 orang siswa sebagai kelas eksperimen dan siswa kelas IV B yang berjumlah 23 orang sebagai kelas kontrol. Sampel diambil dengan menggunakan teknik sampel jenuh dimana seluruh populasi digunakan sebagai sampel. Teknik pengumpulan data yang digunakan adalah tes pilihan ganda. Data hasil penelitian dianalisis dengan teknik analisis statistika deskriptif dan teknik analisis statistika inferensial (uji-t) dengan taraf signifikansi 5%. Hasil penelitian menyatakan bahwa H1 diterima dan H0 ditolak, sehingga dapat disimpulkan bahwa terdapat pengaruh yang signifikan pembelajaran Discovery learning berpendekatan TaRL terhadap hasil belajar PKn kelas IV. Implikasi penelitian ini diharapkan mampu membuat siswa aktif dalam pembelajaran.

ABSTRACT

Learning outcomes in Civics subjects for elementary school students are still low. This is because teachers do not use learning models that suit students' learning styles. So this research aims to analyze the influence of Discovery learning using the Teaching at Right Level (TaRL) approach on Class IV Civics Learning Outcomes. The method used in this research is quantitative using a Quasi Experimental Design approach. The population in this study was all class IV consisting of class IV A and class IV B. The sample for this research was class IV A students totalling 23 students as the experimental class and class IV B students totalling 23 students as the control class. Samples were taken using a saturated sampling technique where the entire population was used as a sample. The data collection technique used is a multiple-choice test. The research data were analyzed using descriptive statistical analysis techniques and inferential statistical analysis techniques (t-test) with a significance level of 5%. The results of the research state that H1 is accepted and H0 is rejected, so it can be concluded that there is a significant influence of Discovery learning using the TaRL approach on class IV Civics learning outcomes. The implications of this research are expected to be able to make students active in learning.

1. INTRODUCTION

Learning outcomes are a reflection of learning achievement in the form of final results achieved by students in a certain period of a learning activity process that has been carried out. (Fajri, 2019; Puspitasari & Nurhayati, 2019). The achievement of learning outcomes obtained by students can also be used to prove the level of student understanding of the subjects that have been studied. One of the learning outcomes that needs to be improved is the learning outcome in the subject of Civics (Wiyono, 2018; Yuniarsih & Kamaludin, 2021). Civics is one of the subjects that is less popular with students, because for some students it is not easy to understand the material and values through the Civics learning

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process. However, in reality, Civics learning has been hampered by the large amount of material and the lack of student learning time at school (Husna & Rigianti, 2023; Rivaldi & Puteri Ramadhani, 2023). This makes the learning outcomes of students in schools less than optimal and there are many cases of misappropriation of moral values of students in educational cases that occur especially in Indonesia. This problem occurs in PKn learning especially for students in elementary schools because teachers tend to make less changes in learning, so that students' PKn learning tends to be rote and less meaningful for students (Hulu & Telaumbanua, 2022; Wulandari, 2023).

The problem is in line with the results of observations, interviews and document recording carried out at SD Negeri 1 Nawa Kerti with grade IV teachers. The results of interviews with grade IV teachers at SD Negeri 1 Nawa Kerti obtained the fact that students have low enthusiasm when the learning process takes place, as evidenced by only a few students raising their hands when the teacher asks questions, teachers at SD Negeri 1 Nawa Kerti still have difficulty in implementing the independent curriculum and teachers still tend to use conventional learning models during teaching and learning activities. This causes learning to be passive and makes students bored in participating in learning, students have difficulty understanding PKn learning materials. The cause of this problem is that the material in the student's book is very minimal, while the material that should be delivered to students to truly understand the values contained in PKn learning tends to be dense, the low value of student learning outcomes in PKn subjects is due to the way students learn which tends to memorize learning materials making students not optimal in mastering and understanding the values contained in PKn learning so that it has an impact on the low cognitive learning outcomes of students PKn. In learning, teachers tend to use conventional learning models. This causes learning to be passive and makes students bored in participating in learning. This is also supported by previous research which states that the objectives of PKn learning in Elementary Schools (SD) have not been achieved optimally, because the delivery of PKn learning materials in SD still comes from teachers which causes students to be less active in learning and the learning objectives that have been set are difficult to achieve, thus having an impact on low learning outcomes (Fithriyah et al., 2021; Rahmayani, 2019).

It is also known that out of a total of 46 students at SD Negeri 1 Nawa Kerti, there are still 30 students or the same as 65% of students who are below the KKM. So, based on the data above, it can be seen that the learning outcomes of grade IV students at SD Negeri 1 Nawa Kerti who have not completed are still more in number than the scores of students who have completed. This is thought to occur because there are several factors that influence the value of student learning outcomes. The high and low learning outcomes can be influenced by several causal factors, namely internal factors (factors originating from within the student) and external factors (factors originating from outside the student). Other researchers also state that the high and low learning outcomes of students are influenced by several causal factors including internal factors and external factors (Junaedi, 2020; Prayogo, 2022). Internal factors consist of physiological factors including health and physical condition, psychology including intelligence, interest, talent, emotion, fatigue and the way students learn. While external factors are influenced by the family environment which includes parenting patterns and family economic conditions, the school environment which includes the curriculum used, learning and teaching methods, school discipline and school conditions, community environment, and natural environment.

Based on the explanation above, it can be seen that one of the many factors that influence learning outcomes is the learning model used by the teacher. The learning model is a factor that comes from outside the student, the learning model is said to be one of the important factors in improving learning outcomes because with a creative and innovative learning model, teaching and learning activities can be carried out effectively which of course will have a positive influence on student learning achievement (Khoerunnisa & Aqwal, 2020; Sueni, 2019). Likewise, conversely, if the learning model applied by the teacher during the learning process is less interesting, it can result in students becoming less active and also passive in learning activities (Setyawan & Kristanti, 2021; Tibahary & Muliana, 2018). By selecting the right learning model, it can help students understand the learning material.

One of the learning models that is suitable to be applied in SD Negeri 1 Nawa Kerti is by using discovery learning. Discovery learning is an effective and enjoyable learning that requires active participation of students, both in planning, implementation, and assessment (Ma'ruf et al., 2019; Setyowati et al., 2018). Discovery learning is a model for developing active learning methods by finding out for yourself, investigating for yourself, so that the results obtained stick in the students' memories. Then other researchers added that discovery learning is a teaching model that organizes teaching in such a way that children gain knowledge that they did not previously know without notification, some or all of it is discovered by themselves (Hasanah et al., 2020; Pangesti & Radia, 2021). Discovery learning has the advantage of fostering a sense of pleasure in students because of the growth of a sense of pleasure in searching which of course is always successful, causing students to direct their own learning activities by involving their own minds and motivation during the learning process taking place in class (Hikmah et al., 2020; Irdam & Irawati, 2019).

In addition to the appropriate learning model, efforts that can be made to reduce student boredom due to monotonous learning by implementing discovery learning syntax can be done using the Teaching at Right Level (TaRL) learning approach. This is supported by the opinion of researchers who state that learning that can be applied as an effort to adjust learning to student learning needs is to integrate Teaching at Right Level (TaRL) (As'ad et al., 2023; Erlinkha et al., 2023). There is an influence of the discovery learning model on the learning outcomes of students' citizenship education. Based on the results of the study, it shows that the discovery learning model is suitable for application in PKn subjects because through discovery learning, students are increasingly enthusiastic in participating in learning (Junaedi, 2020; Prayogo, 2022). Then other research shows that learning using the TaRL approach can improve student learning outcomes because in learning using TaRL, teachers are required to be able to adjust learning in line with student needs (Hadiawati et al., 2024; Maghfiroh, 2024). However, none of these studies have examined the influence of discovery learning using the Teaching at Right Level (TaRL) approach. So this study can be said to be novel and there has been no previous research that has examined discovery learning using the Teaching at Right Level (TaRL) approach.

This study has significant novelty because there has been no previous study that specifically integrates the discovery learning model with the Teaching at Right Level (TaRL) approach in an effort to improve the learning outcomes of Civic Education (PKn) in grade IV students. While many studies have discussed the benefits of each method separately, this study is the first to explore the synergy between discovery learning and TaRL to create a more adaptive and effective learning experience for students. In relation to the explanation above, this study was conducted with the aim of analyzing the Effect of Discovery Learning with the Teaching at Right Level (TaRL) Approach on Civic Education Learning Outcomes in Grade IV of SD Negeri 1 Nawa Kerti. With this study, it is hoped that it can be a reference for teachers in conducting learning using creative learning models so that students do not get bored in participating in learning. With this, student learning outcomes can be improved.

2. METHOD

The type of research used is a quasi-experiment. In conducting this research, two classes were used as research objects, namely the experimental class and the control class. The quasi-experimental design in this study used a post-test only control group design. The population in this study were all fourth-grade students at SD Negeri 1 Nawa Kerti in the 2023/2024 Academic Year, totaling 46 students consisting of two classes, namely class IV A consisting of 23 students and class IV B consisting of 23 students. Determination of the sample in this study used a saturated sampling technique. In this study, there were two classes used as research samples, namely class IV A consisting of 23 students and class IV B consisting of 23 students. Then the class will be drawn using a random sampling method in determining the control class and the experimental class. The experimental group in this study was class IV A students at SD Negeri 1 Nawa Kerti consisting of 23 students. Furthermore, the control group of this study was class IV B students at SD Negeri 1 Nawa Kerti.

The method and instrument for data collection in this study were multiple-choice tests. Before the instrument could be used, an instrument grid was first created. The research instrument grid is a guide or framework used to direct the instrument development process. The grid in this study was compiled based on indicators of student learning achievement in the cognitive aspect. The grid for the student's civics learning outcome test is presented in Table 1.

Table 1. The Test Question Grid

No	Learning Achievement Indicators	Question Area
1.	Mention the meaning of norms.	C1
2.	Provide examples of the implementation of norms in society.	C2
3.	Explaining the consequences of violating moral norms.	C2
4.	Explaining the consequences of violating legal norms.	C2
5	Implementing norms of politeness in society	C3
6	Implementing legal norms in society	C3
7	Finding the role of moral norms in life in society.	C4
8	Finding the role of religious norms in life in society.	C4
9	Criticizing the implementation of existing norms in society.	C5
10	Developing solutions to problems related to violations of norms in society	C6

Before the test is used for research, the test that has been prepared will be tested first. The quality of learning outcome measurement tools in the cognitive domain is determined by several factors including

content validity test, item validity test, test reliability, test difficulty level test, and test discrimination power test. The data analyzed in this study were Civics learning outcome data from the post-test results of the experimental group and the control group. The learning outcome data were then analyzed using descriptive statistical analysis methods and inferential statistical analysis. Descriptive analysis is done by finding the mean score, median, mode, standard deviation, maximum score and minimum score of the learning outcome test that has been conducted. To determine the level of qualification of students' PKn learning outcomes, it is analyzed descriptively on the basis of the ideal mean score (Mi) and ideal standard deviation (SDi), using five levels of qualification. Inferential statistics are used to test the hypothesis of different tests, namely the independent sample t-test. Before testing is carried out to obtain conclusions, the prerequisites that must be met are that the data for each group must be normally distributed and homogeneous.

Hypothesis testing is used to test the hypothesis put forward in the study. In this study, a research hypothesis is proposed, namely that there is a significant difference in Civics learning outcomes between groups of students who are taught with discovery learning using the Teaching at Right Level (TaRL) approach and groups of students who are taught with conventional learning in grade IV students of SD Negeri 1 Nawa Kerti, Karangasem Regency in the 2023/2024 academic year. The hypothesis testing is described as the null hypothesis (H0) versus the alternative hypothesis (H1).

3. RESULT AND DISCUSSION

Result

The data collected in this study were data on the learning outcomes of PKn students in grade IV of SD Negeri 1 Nawa Kerti. The data collected were analyzed in accordance with the established analysis techniques. The post-test value data of students' PKn learning outcomes were obtained from the experimental group and the control group. Based on the results of the post-test analysis of learning outcomes, the mean value (average) of the experimental group was 85.65. Meanwhile, the results of the post-test analysis of learning outcomes in the control group found that the mean (average) was 55.43. The results of the post-test analysis of learning outcomes in the experimental group and the control group can be described in the form of a histogram graph. The histogram graph can be seen in Figure 1.

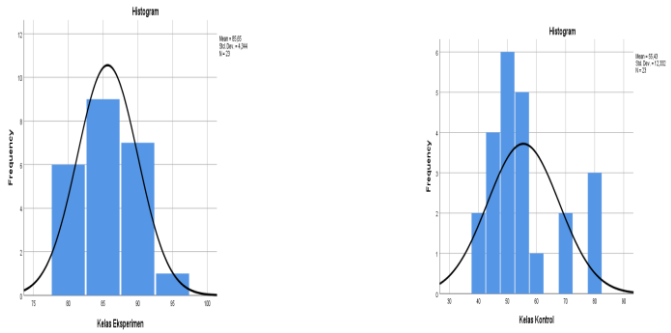

Figure 1. The Histogram Graph of Experimental Group and Control Group

Based on Figure 1, civics learning outcomes of students in the experimental group, the histogram graph is a negative squint graph. While in the control group the mean, median and mode values overlap, so the histogram graph is a normal graph. The average score of Civics learning outcomes in the experimental group and the control group were each converted into a five-point scale category to determine the high and low quality of student learning outcomes. Based on the calculation results, it was obtained that the average score of the percentage of the learning outcomes of students in the experimental group, with M = 85.65, was categorized as "Very High". Meanwhile, the average score of the percentage of the learning outcomes of students in the control group, with M = 55.43, was categorized as "Medium".

Next, the data analysis assumption test is carried out, there are two parts, namely the normality test of data distribution and the homogeneity test of variance carried out on the Civics learning outcome data of the experimental group and the control group. This test is carried out to determine the next step in the hypothesis test. The normality test of data distribution in this study uses the Kolmogorov Smirnov formula with the help of SPSS 25 software. Based on the calculation results, a significant value is obtained in the Kolmogorov Smirnov column in the experimental group of 0.200 and the control group of 0.110. These values indicate that 0.200> 0.05 and 0.110> 0.05 so that it can be concluded that the experimental group and the control group are normally distributed. Then for the homogeneity test of variance using the Levene's Tes of Equality of Error formula with the help of SPSS 25. Based on the calculation results, it can

be seen that the homogeneity test of variance of the distribution of post-test learning outcome data in the experimental group and the control group is homogeneous.

After the prerequisite test is carried out, hypothesis testing is carried out. Hypothesis testing is carried out using a t-test with a significance level of 5%. The statistical analysis used is the independent sample t-test with the help of the SPSS 25 for Windows software program. The results of the t-test can be seen in Table 2.

Table 2. The Recapitulation of t-test Results

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Student Learning Outcomes	Equal variances assumed	1.247	0.271	5.820	46	0.000	8.091	1.390	5.285	10.896
	Equal variances not assumed			5.820	36.295	0.000	8.091	1.390	5.272	10.910

Based on Table 2, recapitulation of the t-test results, it is known that the value in the sig.(2-tailed) column is 0.000. Referring to the results obtained, when compared with the significance value of 0.05. Then it can be seen that 0.000 <0.05 and get tcount = 5.820 while t_{table} = 1.680 (t_{count}> t_{table}). This means that H_0 is rejected and H_1 is accepted. It can be concluded that there is a significant influence of discovery learning with the Teaching at Right Level (TaRL) approach on the learning outcomes of Civics in grade IV of SD Negeri 1 Nawa Kerti.

Discussion

Based on the results of the research conducted, it is proven that students' civics learning outcomes increased after implementing discovery learning with the Teaching at Right Level (TaRL) approach. The high civics learning outcomes are because students learn using discovery learning consisting of six stages, which can activate learning activities in the classroom. In this study, the first stage of discovery learning is that the teacher begins learning activities by asking questions, examples or other references to students. Students are faced with relevant questions or problems to foster their curiosity and find answers to these questions. This serves to prepare learning interaction conditions that can develop and help students to explore knowledge (Abdjul, 2022; Prihandini et al., 2023). By providing stimulation, it can arouse students' curiosity, so that they have the desire to investigate the topic being discussed themselves. This can certainly increase students' learning motivation (As'ad et al., 2023; Shabrina et al., 2024).

Then the next stage, the teacher gives students a statement or identification of the problem (problem statement). The teacher gives students the opportunity to identify as many problems as possible that are relevant to the topic material, then students choose one to be formulated in the form of a hypothesis (Suhada et al., 2019; Wabula et al., 2020). Teachers provide opportunities for students to collect as much relevant data or information (data collection) as possible. The main function of this data collection stage is to invite students to collect various information, read literature, observe objects, conduct interviews with sources, conduct trials, and other things to prove the hypothesis. These data collection activities can make students actively participate in learning and encourage students to think intuitively in finding answers to the topics discussed in more depth. This activity is also useful in building students so that they are accustomed to finding problems. Through the active involvement of students with these concepts and principles, students are encouraged to have experiences and conduct experiments that allow them to find principles for themselves. When students are active in following the learning process, indirectly learning outcomes also increase.

The next stage, the teacher invites students to carry out data processing activities from information that has been collected either through interviews, observations and so on. Through this data processing activity, students will gain new knowledge about alternative answers or solutions that need to be proven logically. This activity can improve students' reasoning so that students can solve a problem. By implementing this activity, students can be trained to be more independent, responsible and able to solve problems themselves without waiting for direction from the teacher. Furthermore, the teacher invites students to conduct a careful examination in verifying whether or not the hypothesis they previously set is

correct with alternative findings through presentation activities in turns with their groups (Agusriyalni et al., 2021; Gempita et al., 2023). Through this verification activity, of course, it can make the learning process run well and creatively so that it creates a sense of joy in students because this activity provides an opportunity for students to speak in front of their friends and convey their findings. This helps students in increasing their self-confidence, and students are able to remember the learning concepts that they have found themselves, so that the concept lasts longer in students' memories. The last stage, the teacher asks students to draw a conclusion that can be used as a general principle. Based on these stages of learning, teaching and learning activities can be more effective and enjoyable so that students can actively participate in learning which improves their learning outcomes.

In addition, the increase in PKn learning outcomes obtained by students because learning is carried out by integrating the TaRL approach. TaRL is an approach that is oriented towards students and focuses on the abilities of each student. This approach does not depend on class level, but rather focuses on the level of student ability ('Adawiyyah et al., 2024; Shabrina et al., 2024). The level of student ability in TaRL is a reference in the process of designing learning. The Teaching at Right Level approach has several advantages, namely making it easier for teachers to adjust the material to the interests and abilities of students, making it easier for teachers to design learning to carry out good conceptual construction so that it can also improve students' thinking skills, students are given space to participate actively. Based on these advantages, the TaRL approach can influence the activeness and cognitive learning outcomes of students (Erlinkha et al., 2023; Shabrina et al., 2024). The implementation of the Teaching at Right Level approach improves the learning outcomes of students.

In this study, teaching and learning activities in the classroom using the TaRL approach are arranged based on the students' learning styles. To find out the students' learning styles, a diagnostic assessment has been carried out before the learning activities in the classroom. This diagnostic assessment is carried out to find out the level of students' abilities so that students can be given a learning space with colleagues that matches their level of learning ability. The learning styles are auditory learning style, students who learn easily by listening. Visual learning style, students who learn more easily by seeing, kinesthetic learning style, students who learn more easily by moving and practicing directly. In this study, there were 8 students with auditory learning styles, 8 students with visual learning styles and 7 students with kinesthetic learning styles. Through learning activities using learning styles that are in accordance with the characteristics of students, learning activities can be made more effective and enjoyable and can optimize their learning abilities. Supported by other researchers who state that because students are divided into groups based on their abilities, it is believed that learning to organize students according to their abilities can make it easier to understand concepts and can also increase their participation in learning. Group treatment according to level allows students to progress and improve according to their respective abilities or levels, especially in cognitive abilities.

In this study, the control class is a class that is not taught using discovery learning with the TaRL approach. The steps taken in the control class are in accordance with the learning that is usually done by the previous teacher. The material is done by delivering material by the teacher, questions and answers and providing exercises to strengthen the material for students. Furthermore, an evaluation is carried out on each student. Learning in this control class creates a learning atmosphere for students that is relatively passive, seen during the teacher's learning which is more active because students only listen to the material explained by the teacher. During learning, there is a lack of interaction between teachers and students so that many students pay less attention to the teacher because they are busy with themselves or their deskmates. This makes the learning outcomes of the control class lower.

The limitations of this study are that this study only focuses on the dependent variable on cognitive learning outcomes and other domains have not been measured either in the experimental class or in the control class. Measurements were also only carried out in 1 school. The measurement instrument only used multiple-choice instruments. Therefore, it is hoped that other researchers can expand the area of student characteristics, for example, in terms of social, cultural, ethnic, economic status, and academic abilities. The implications of this study are that there is a significant influence of discovery learning with the Teaching at Right Level (TaRL) approach on the learning outcomes of Civics for grade IV of SD Negeri 1 Nawa Kerti. The implications of this study are that teachers need to plan discovery learning carefully, determine clear learning objectives, choose the right problems, and design learning tasks that are appropriate for students. In addition, discovery learning requires a lot of time in the learning process because it involves students in an active and in-depth learning process, so teachers need to manage time effectively. This can be done by setting a clear time for each learning activity and helping students to focus on their tasks. Another thing that also needs to be considered is that teachers must conduct non-cognitive diagnostic assessments to determine the appropriate learning styles of students so that they are able to apply the TaRL approach to learning.

4. CONCLUSION

Based on the results of the research that has been conducted, it can be concluded that the implementation of discovery learning with the Teaching at Right Level (TaRL) approach significantly improves the learning outcomes of Citizenship Education (PKn) in grade IV students at SD Negeri 1 Nawa Kerti. This learning is not only able to increase active participation and student learning motivation, but also adjusts the learning materials to the abilities and learning styles of each student, so that the learning process becomes more effective and meaningful. However, this study has limitations, including in the scope of the variables measured and the scope of the school studied. Therefore, it is hoped that further research can overcome these limitations by expanding the study area and measuring other aspects of learning outcomes, such as the affective and psychomotor domains. The results of this study provide important implications for teachers to pay more attention to the planning and implementation of creative learning that is in accordance with student needs, in order to achieve optimal learning outcomes.

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