

JPPIPA 10(7) (2024)

Jurnal Penelitian Pendidikan IPA

Journal of Research in Science Education



http://jppipa.unram.ac.id/index.php/jppipa/index

The Effect of Applying the Teaching at the Right Level (TaRL) Approach Assisted by LKPD to Improve the Learning Outcomes of Grade 6 Elementary School Students on Electrical Circuits

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Received: May 17, 2024 Revised: June 08, 2024 Accepted: July 25, 2024 Published: July 31, 2024

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DOI: 10.29303/jppipa.v10i7.7671

© 2024 The Authors. This open access article is distributed under a (CC-BY License) **Abstract:** The research aims to examine the effect of implementing the Teaching at the Right Level (TaRL) approach assisted by LKPD to improve the learning outcomes of grade 6 elementary school students on electrical circuits. The research was carried out at SDN 1 Semangkak on class VI students. The sampling technique uses a purposive area sampling method. The research used a quasi-experimental design with data collection techniques through post-tests in the form of multiple choice questions and descriptions, observation, documentation and interviews. The data obtained was analyzed using statistical tests which included normality tests, data analysis using the Paired Samples t-Test. Based on the Validity Test, the results show $r = 0.82 \alpha > (0.05)$ so that all question items show valid results. Reliability test if the value $\alpha > 0.738$ the value is reliable, namely 0.894. Then the results of the normality test value of learning outcomes are $0.467 > \alpha$ (0.05) exceed the significant value, then the variable values are normally distributed, followed by using the Paired Sample t-Test test, the test results -t is the learning result at a sig value of $0.00 < \alpha$ (0.05), so reject H0. So it can be concluded that there is an influence of implementing the Teaching at the Right Level (TaRL) approach assisted by LKPD to improve the learning outcomes of Grade 6 Elementary School students on electrical circuits.

Keywords: Electrical circuits; Learning outcomes; LKPD; TaRL

Introduction

The Pancasila student profile is a form of translation of the goals of national education, namely developing lifelong students who are competent, have character and behave according to the values of Pancasil. The Pancasila student profile consists of six dimensions, one of which is the dimension of mutual cooperation (Simatupang et al., 2023). The ability to work together is the ability of students to carry out activities together voluntarily so that the activities carried out can run smoothly, easily and easily. The elements of mutual cooperation are collaboration, caring and sharing (Asiati et al., 2022).

The Pancasila student profile is very necessary so that Indonesian students have the competence to become democratic citizens and become superior and productive human beings in the 21st Century. (Puspitasari, 2019). Therefore, it is hoped that we can participate in sustainable global development and be resilient in facing various world challenges in the future (Muhajang et al., 2024). In fact, not all students are able to reflect themselves as students of Pancasila, especially in the dimension of mutual cooperation in classroom learning (Azikin, 2018). 21st century learning is learning

How to Cite:

Aryanti, N., & Muthamainah. (2024). The Effect of Applying the Teaching at the Right Level (TaRL) Approach Assisted by LKPD to Improve the Learning Outcomes of Grade 6 Elementary School Students on Electrical Circuits. *Jurnal Penelitian Pendidikan IPA*, 10(7), 3664–3673. https://doi.org/10.29303/jppipa.v10i7.7671

that focuses on students. Learning is carried out in accordance with student characteristics. Student characteristics are in the form of background tools, learning motivation, learning seminars and student learning styles (Rahmania et al., 2023). Learning cannot be generalized to all students, because students have different characteristics for each student (Simanjuntak et al., 2024). Characteristics of students that are no less important in learning are learning motivation (Zan et al., 2023).

The results of interviews with subject teachers at SDN 1 Semangkak still show that there are several students who are less involved in study groups. This condition was also obtained from observations during previous learning that the cooperative attitude of students in the study group was still relatively low. This happens because even in the same class, differences are found in the characteristics of students, especially in the level of their ability to understand the lesson. Apart from that, the subjects low ability of students' scores on electrical circuits. Because students don't understand the material. Not a few students feel unable to participate in learning because it does not match their abilities. One effort to overcome this problem is through classroom action research by applying the Teaching at the Right Level (TaRL) approach (Affifah et al., 2023). The TaRL approach is a learning approach that does not refer to class level, but rather refers to the level of students' abilities (Ahmad et al., 2023). This is what makes TaRL different from the usual approach. This approach is considered suitable for teachers to apply in the current curriculum, which gives teachers flexibility in teaching according to the capacity of their students (Asysyura et al., 2023). The hope is that students can be actively involved in study group discussions because they feel capable of completing the tasks given by the teacher (Darlin et al., 2022). This TaRL can be an answer to the problem of gaps in understanding that have occurred in the classroom. Several studies show that the application of TaRL has a good impact in improving learning and student learning outcomes, as reported by Izzah et al. (2023), can improve student learning outcomes (Busri et al., 2023).

Based on the problems stated above, it is necessary to realize that each student has diverse characteristics and learning needs so of course their abilities are not equal. In every class, of course, teachers have encountered students who are quick to understand the subject matter and some who are slow (Rahmania et al., 2023). This can happen because there are many influencing factors. One factor that might be the cause is that the student's level is not appropriate to the specified level or learning outcome (Ismail et al., 2024).

Based on this, it is deemed necessary to apply a learning approach that adapts to students'

achievements, ability levels and learning needs. This learning approach is known as Teaching at the Right Level (TaRL). The Teaching at the Right Level (TaRL) approach is a teaching approach that is centered on students' learning readiness, not just at grade level (Aprivantini et al., 2023). The TaRL approach provides freedom or flexibility in teaching according to student abilities. Students are not tied to grade levels, but are adjusted based on the abilities of the same students (Latifah et al., 2020). Simply put, in the student learning process grouped based on level or learning achievement. Where in its implementation, the first thing the teacher needs to do is carry out a diagnostic assessment (Muammar et al., 2023). This assessment functions to determine students' characteristics, potential and learning needs (Kiromiah et al., 2021). This makes it easier for teachers to know and understand students' stages of development and learning achievements (Mulyaningrum et al., 2024).

A learning approach that can be applied as an effort to adapt learning to students' learning needs is Teaching at the Right Level (TaRL). As is characteristic of the Independent Curriculum, the TaRL approach allows teachers to be more flexible in adapting their learning according to students' capacities through diagnostic assessments. Through the TaRL approach, it is hoped that the boredom experienced by students during this time in class can be minimized because each student will have their learning needs facilitated and receive appropriate challenges, with himself to train the mind and increase interest in learning. Apart from that, efforts can be made to reduce boredom due to monotonous learning

To support the implementation of learning using the TaRL approach, Student Worksheets (LKPD) are needed to make it easier for students in the learning process. Student Worksheets (LKPD) are guides prepared for students in studying a concept so that they can help students in solving a problem. So by using TarL assisted by LKPD you can improve student learning outcomes. This is in accordance with research conducted by Yuli et al. (2023), Improving Student Learning Outcomes Through the Teaching at the Right Level Approach, Problem Based Learning Model Assisted by LKPD in Economics Subjects. Research results show that by implementing the TaRL (Teaching at the Right Level) approach with the Problem Based Learning learning model assisted by LKPD, it can increase an average of 20% of student learning outcomes.

Jauhari et al. (2023) Learning Using the Tarl Approach to Increase Students' Mathematics Interest and Learning Outcomes, research results show that the average percentage of interest in learning increased by 16% from 50% (less) in cycle I to 66% (sufficient) in cycle II. In the aspect of learning outcomes, it is shown by an 3665 increase in the percentage of completion by 40.7% from 9.3% in cycle I to 50% in cycle II. The average student score increased by 16 points from 63 points in cycle I to 79 points in cycle II.

Based on this description, the effect of implementing the Teaching at the Right Level (TaRL) approach assisted by LKPD is to improve the learning outcomes of grade 6 elementary school students on electrical circuit material. Thus, a research will be carried out with the title The Effect of the Problem Based Learning (PBL) Learning Model Assisted by Phet Simulation on HOTS of Grade 6 Elementary School Students on Electrical Circuit Material.

Method

The research was carried out at SDN 1 Semangkak on class VI students on electrical circuits in the even semester of the 2022/2023 academic year. The sample selection used the purposive area sampling method, namely determining the sample based on specific criteria for the object that the researcher hoped for (Marginingsih, 2017). The criteria addressed are that the sample used must be homogeneous and have recommendations from the teacher. Researchers used two classes as samples, namely the control class (X2) and the experimental class (X1). The experimental class was given learning treatment using PBL assisted by PhET simulation, while the control class was not given learning treatment (but used conventional learning).

The quasi-experimental research design is that the researcher does not carry out randomization in determining research group subjects (Yusuf, 2016). The researcher used two classes as samples and the design used was a post-test only control design, where the post-test was held after learning was carried out to determine the effect of the treatment. The post-test only control design research design can be seen in Table 1.

 Tabel 1. Rancangan Desain Penelitian Post-Test Only

 Control Design

Class	Treatment	Posttest
Experiment	X_1	O1
Control	X ₂	O2

The data collection technique uses a multiple choice test containing 10 questions. Apart from that, observations take the form of sheets given to observers to make observations during the learning process, documentation related to photos of activities during the research, as well as interviews with science teachers at the school regarding learning activities, methods, models and media commonly used during learning.

Data analysis techniques use measurement of learning outcomes, especially in the cognitive or knowledge domain. After the results are obtained, they are then categorized into the percentage of completeness in accordance with the K13 guidelines which have been adjusted to the minimum completeness criteria (KKM) at the school, namely 70. The percentage of completeness is shown in Table 2.

Table 2. Percentage of Co	ompleteness
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0	1
Nilai	Completeness
≥70	Complete
< 70	Not Complete

Furthermore, the post-test data that has been obtained will be analyzed using the Paired sample t test to determine whether learning after using the PBL model assisted by Phet Simulation media has an influence on student learning outcomes or not. The data must be tested for normality first before carrying out the t-test to decide which test will be used next. The following is the research flow.



Figure 1. Research flow

Results and Discussion

The method used in this article is quantitative research. The examination model used is a pre-test and post-test using a Likert scale estimate. The population in this logic work was class VI students at SDN 1 Semangkak, totaling 50 students, taking samples using a purposive examination procedure so that the number of tests was 25 students from class VI C and 25 class A. This concentration is for one purpose only class to be given inspirational treatment. Information collection uses 10 question items to measure student learning outcomes. Formed into an inspirational testing instrument that is estimated using a Likert scale.

This exam was directed to the researchers using a purposive examination procedure, the sample used was 25 students from a student population of 25 students taken from class VI of SDN 1 Semangkak. The implementation was carried out during 1 meeting. Before learning begins, a pre-test is given and after treatment, a post-test is given.

Data Processin

The data is analyzed using SPSS, so that data that has been tabulated in Excel can be directly transferred to the t-test statistical formula. Sudjana (2013) said that to create a list of frequency distribution tables with the same class length, first carry out the following processing.

Table 3. Descriptive Analysis

Analysis	Minimum	Maximum	Average (\bar{x})	Standar
data				Deviation
Pre Eks	11	61	36.48	13.257
Post Eks	76	93	85.48	4.908
Pre-Kon	10	61	31.40	11.779
Post Kon	46	82	67.89	9.798

In this research, students' learning outcomes were measured before and after learning, namely Pre-Test and Post-Test. Data analysis uses descriptive analysis techniques. The results of the analysis are shown in Table 1. Measurement of student learning outcomes aims to test the effectiveness of implementing the TaRL approach assisted by LKPD which has been used during learning. The measurement data were analyzed using descriptive statistics. The average pretest score for the control class was 31.40 while the average post-test score for the control class was 67.89. For the experimental class the pretest score was 336.48 while the average post-test score was 85.48 which shows an increase. So, it can be concluded that there are differences in learning outcomes before and after in the experimental class and the control class. According to the results above, the highest score was obtained in the experimental class. This means that the TaRL approach assisted by LKPD is more effective than conventional learning.

Validity and Reliability Test

Validity test uses the Pearson Correlation method. Question items are said to be valid if the Pearson coefficient is more than the r-table. Apart from that, it can be seen from the significance value, if the significance value is less than α (0.05) then the question item is considered valid. Following are the results of the validity test for each question item for all variables (Riduwan, 2015). The validity test is intended to find out

whether the instrument used really measures what it is supposed to measure. Validity is tested through Confirmatory Factor analysis. If $r_{count} > 0.50$ the question item is valid (Ghozali, 2004). Validity testing is carried out using the product moment correlation formula. The calculated r is obtained from the SPPS version 26 output results, this value is then compared with the table r value from the statistics book. Complete validity testing can be seen in Table 4 which shows that all those used to measure the items used in this study have a correlation coefficient that is greater than the r-table, where for a sample of 25 students of SDN 1 Semangkak class VI B with using different classes with 10 questions, the r-table value is 0.81 with a significance level of 0.05 or 5%. The resulting calculated r-value is presented in Table 4 from the results this shows that all these indicators are valid.

Table 4. Pre-Test Validity Test Results Critical Thinking

 Skills

Question Items	R _{table}	Person Correlation	Description
1	0.396	0.77	Valid
2	0.396	0.82	Valid
3	0.396	0.62	Valid
4	0.396	0.76	Valid
5	0.396	0.54	Valid
6	0.396	0.71	Valid
7	0.396	0.67	Valid
8	0.396	0.51	Valid
9	0.396	0.83	Valid
10	0.396	0.69	Valid

Based on the table above, all question items have valid items because R_{count} > R_{table} . This means that the instrument is able to measure what is desired and capable disclose the researched data accurately.

Table 5. Post-Test Validity Test Results for Critical

 Thinking Skills

Question Items	R _{tabble} Perso	on Correlation	Description
1	0.396	0.53	Valid
2	0.396	0.75	Valid
3	0.396	0.73	Valid
4	0.396	0.63	Valid
5	0.396	0.73	Valid
6	0.396	0.76	Valid
7	0.396	0.82	Valid
8	0.396	0.52	Valid
9	0.396	0.43	Valid
10	0.396	0.64	Valid

Based on the table above, all question items have valid items because R_{count} > R_{table} . This means that the instrument is able to measure what is desired and is able to reveal the data studied accurately. Based on Table 5, the results of the validity test on all learning outcome variable items with a total of 10 items each show that the Pearson coefficient value is more than the r-table 0.82 3667 and the significance value is less than α (0.05). So all question items in the questionnaire to represent all variables in this research are valid. Then proceed with the reliability test, namely the reliability or consistency or trustworthiness value of a measuring instrument. Researchers used the Cronbach's Alpha method to test the reliability value of each item from all variables. A variable is said to be reliable if it provides a Cronbach's Alpha value > 0.70. Following are the results of the reliability test.

Table 6. Pre-Test Reliability Test Results

	Reliability Statistics	
Cronbach's Alpha		N of Items
.894		10

Based on Table 6, the results of the Pre-Test reliability test can be seen that the Cronbach's Alpha value for all variables is more than 0.70. So it can be concluded that all question items from all variables are reliable or consistent. Because all items for each variable are valid and reliable.

Table 7. Post-Test Reliability Test Results

	Reliability Statistics	
Cronbach's Alpha	·	N of Items
.786		10

Based on Table 7, the results of the post-Test reliability test can be seen that the Cronbach's Alpha value for all variables is more than 0.70. So it can be concluded that all question items from all variables are reliable or consistent. Because all items for each variable are valid and reliable, the next analysis can be continued.

Normality Test

The researcher tested normality using the Shapiro Wilk test, because the sample in the study was less than 30. The hypothesis underlying the data normality test was:

H₀: Data is normally distributed

H₁: Data is not normally distributed

The following are the results of the normality test of the learning motivation variable.

Table 8. Data Normality Test Results

Variable	Class	Statistck-uji Shapiro Wilk	Value Sig.
learning	Experiment	0,943	0.467
outcomes	Control	0,934	0.256

Based on Table 8, it shows that changes in learning outcomes have a significance value of more than α (0.05), so the decision to accept H₀ is obtained. It can be concluded that the learning outcome variables are

normally distributed. Then the analysis can be continued using the t-test.

T-test

In this section we will review whether there are significant differences in the two tests. After implementing the TaRL approach assisted by LKPD to improve student learning outcomes, analysis uses statistical testing, namely the Paired Samples t-Test, where the aim is to compare the values of samples that are not paired with each other. Paired samples t-test is used to test whether the mean of a variable is statistically significantly different when compared with the known mean value as an assumed or hypothesized value. In this study, we wanted to find out whether the average learning outcome scores were different or not. The hypothesis in this research is:

H₀ = There is an effect of implementing the Teaching at the Right Level (TaRL) approach assisted by LKPD to improve the learning outcomes of grade 6 elementary school students on electrical circuits.

 H_1 = There is no effect of implementing the Teaching at the Right Level (TaRL) approach assisted by LKPD to improve the learning outcomes of 6th grade elementary school students on electrical circuits.

The following are the results of the paired sample t-test t-test analysis.

Table 9. Paired Sample 1	t-Test	Resul	ts
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Variable	Statistic-t	Value Sig.
Learning outcomes	16.813	0.000

Based on Table 9, the results of the t-test on learning outcomes show a significance value of less than 0.05, so reject H₀. Based on the test results in the equal variances assumed section, it appears that the value of Sig.(2-tailed) < α is 0.001 < 0.05. So, the decision taken is to reject H₀ and the final conclusion is that there is an effect of implementing the Teaching at the Right Level (TaRL) approach assisted by LKPD to improve the learning outcomes of 6th grade elementary school students on electrical circuit material.

Discussion

From the description of this research, researchers used pre-test and post-test learning outcomes in the experimental class and control class. The aim of learning using the TaRL approach assisted by LKPD is to help improve student learning outcomes. Before researchers carry out research, researchers first validate the research instruments needed during learning. From the validator's opinions and suggestions, it can be concluded that the entire research instrument prepared by the researcher has reached the valid validation category. Then test the validation of the questions and reliability. The results of the items tested were valid and reliable.

The results obtained from the data above are that there is an effect of implementing the Teaching at the Right Level (TaRL) approach assisted by LKPD to improve the learning outcomes of 6th grade elementary school students on electrical circuit material. After testing the hypothesis using the t test of 0.001. After testing the hypothesis, there is an influence between the two variables with the coefficient of determination. There is an influence of implementing the Teaching at the Right Level (TaRL) approach assisted by LKPD to improve the learning outcomes of 6th grade elementary school students on electrical circuit material. Based on the results of data processing, graphic results of student learning outcomes can be seen before and after learning.



Figure 2. Learning outcomes graph (Source: excel 2023 data processing)

Based on figure 2, it can be seen that learning outcomes increased before using the TaRL approach assisted by LKPD. The measurement data were analyzed using descriptive statistics. The average pretest score for the control class was 31.40, while the average post-test score for the control class the pretest score was 67.89. For the experimental class the pretest score was 336.48 while the average post-test score was 85.48 which shows an increase. So, it can be concluded that there are differences in learning outcomes before and after in the experimental class and the control class. According to the results above, the highest score was obtained in the experimental class. This means that learning using the TaRL approach assisted by LKPD is more effective than using conventional learning.

So, it can be concluded that there are differences in students' HOTS before and after learning using the TaRL approach assisted by LKPD. Validity test results show r = 0.82 < (0.05) so that everything shows valid results, so from the dependability test if the value is > 0.70, the value is reliable, to be precise 0.82, from the consequences of the legitimacy and quality test

unwavering, all factors are solid/predictable because they matter for each variable.

Then a normality test was carried out before solving using the t-test, the regularity test results for the inspiration value were 0.467 > value (0.05). This value shows that the independent factor is more important than the large value, so the variable value is usually adjusted. then use the t-test. Based on the test results in the equal variances assumed section, it appears that the Sig (2-tailed) < α value is 0.001 < 0.05. So, the decision taken is to reject H0 and the final conclusion is that there is an effect of implementing the Teaching at the Right Level (TaRL) approach assisted by LKPD to improve the learning outcomes of 6th grade elementary school students on electrical circuits. The conclusion is that there is a significant difference in the average value of student learning outcomes between the two classes. Because the score obtained by the experimental class was higher than the control class, it was concluded that learning used the TaRL approach assisted by LKPD to improve the learning outcomes of 6th grade elementary school students on Electric Circuit material. Based on the post-test scores and statistical test results obtained, it can be said that the TaRL approach assisted by LKPD has proven to be efficient and has an influence on student learning outcomes.

The application of differentiated learning using the TaRL (Teaching at the Right Level) approach is carried out in class VI on electrical circuit material which groups students into learning groups with a learning design referring to ability levels (Zahra et al., 2024). The TaRL according approach groups students to the characteristics of the level of ability possessed by the students. The application of TaRL is a form of application that is in line with Ki Hadjar Dewantara's educational philosophy, namely by observing the achievements of levels/ability levels, as well as students' learning needs as benchmarks in arranging teaching and learning activities so that they are student-centred (Aprivantini et al., 2023). The application of the TaRL approach has the advantage that it can make students more active and use learning that is oriented towards students according to their level, so that it can improve cognitive abilities. Based on the results of the initial assessment that has been carried out, students will then be grouped based on 3 levels or the same level of achievement and ability (Puspitasari, 2019). The next stage, after mapping the level of students through the assessment provided, is then carried out planning for the implementation of learning that adapts to the needs of students, such as preparing the teaching tools used, namely; teaching module that applies the PBL (Problem-Based Learning) model as well as group discussion and question and answer methods, LKPD, PowerPoint and post-test questions which are used to obtain 3669

comparative results from the application of the TaRL approach in class VI experimental classes (Kiromiah et al., 2021).

In the group discussion process, the process is differentiated by differentiating the treatment for each learning group of students. In the advanced group, students are allowed to be independent in working on the LKPD, but are allowed to ask questions if there are difficulties in working on it (Munika et al., 2021). In the developing study group, the researcher explained the instructions for working on the LKPD by occasionally asking questions regarding the difficulties faced to monitor the progress of the discussion and work on the LKPD provided (Nanda et al., 2023). The advantages obtained by using LKPD include: Providing convenience for educators in managing the learning process, Helping educators direct their students to discover concepts through their activities both individually and in groups, Can develop process skills and develop a scientific attitude, and make it easier for educators to monitor the success of participants students in achieving learning targets (Sari et al., 2020).

When the group began to develop, the researcher guided the discussion while working on the LKPD. Researchers also differentiate processes in the LKPD instructions. In the advanced group LKPD, students are directed to analyze a case based on literature studies. In the developing group, work on LKPD places more emphasis on providing concrete examples of the cases given. Meanwhile, in groups starting to develop, work on LKPD is directed at explaining an existing case based on literature study. Learning activities with a process differentiation approach are in line with the opinion of Fitrivah (2022) that process differentiation refers to how students understand or interpret what they learn. Process differentiation can be done by tiering activities, providing guiding questions or challenges that need to be completed in areas of interest, creating individual agendas for students in the form of task lists, varying the length of time students can take to complete assignments, and developing varied activitie (Rahmania et al., 2023). In the LKPD there are instructions for carrying out the task ordered, namely analyzing problem phenomena in the excretion system by giving students the opportunity to explain their knowledge by providing choosing space in learning sources/references and learning methods in order to understand the material (Laili et al., 2022).

One of the characteristics of process differentiated learning is giving freedom to students in choosing according to their comfort and interests which can create learning that takes place more efficiently and effectively (Andriyani et al., 2020). Furthermore, after completing the activities discussion, students present the results of the discussion through presentations in front of the class, which aims to make students understand more about the material presented through discussions between groups (Miqro, 2021).

At the end of the learning activity, an evaluation of the learning process was held by giving posttest questions in the form of essays to students (Kiromiah et al., 2021). This serves to obtain data regarding the achievement of differentiated learning learning objectives using the TaRL approach, as well as to help design subsequent learning (Zan et al., 2023). The posttest results after students carried out differentiated learning using the TaRL approach were that students got an increased score compared to the pretest results given before learning using the TaRL approach (Zahra et al., 2024). So it can be seen that the implementation of differentiated learning through the TaRL approach has been proven to provide an increase in the cognitive abilities of students. This is in line with the research results of Purwasi et al. (2020) that the TaRL approach can increase students' interest and learning outcomes, because it allows researchers to be able to adapt learning to students' abilities, so that they become more active and involved in learning, and can increase interest and learning outcomes.

This is in accordance with research conducted by Yuli et al. (2023) Improving Student Learning Outcomes Through the Teaching at the Right Level Approach, Problem Based Learning Model Assisted by LKPD in Economic Subjects. Research results show that by implementing the TaRL (Teaching at the Right Level) approach with the Problem Based Learning learning model assisted by LKPD, it can increase an average of 20% of student learning outcomes.

Jauhari et al. (2023) Learning Using the TaRL Approach to Increase Students' Mathematics Interest and Learning Outcomes, research results show that the average percentage of interest in learning increased by 16% from 50% (less) in cycle I to 66% (sufficient) in cycle II. In the aspect of learning outcomes, it is shown by an increase in the percentage of completion by 40.7% from 9.3% in cycle I to 50% in cycle II. The average student score increased by 16 points from 63 points in cycle I to 79 points in cycle II.

By using the TaRL approach assisted by LKPD, students become more active in asking, answering and solving problems on the LKPD. Even though they both follow in learning, it can be seen from the student learning results (post-test) obtained by the experimental class which was given learning treatment using the TaRL Approach assisted by LKPD which got a much higher score when compared to the control class which only used conventional conventional learning. This is because students are more enthusiastic about participating in learning because of the TaRL approach assisted by LKPD which makes them feel more interested.

Conclusion

Based on the results of the research and data processing that has been carried out, it can be concluded that there is an effect of implementing the Teaching at the Right Level (TaRL) approach assisted by LKPD to improve the learning outcomes of Grade 6 Elementary School students on electrical circuit material. Based on the test results in the equal variances assumed section, it appears that the value of Sig.(2-tailed) < α is 0.001 < 0.05. So, the decision taken is to reject H_0 and the final conclusion is that there is an effect of implementing the Teaching at the Right Level (TaRL) approach assisted by LKPD to improve the learning outcomes of 6th grade elementary school students on electrical circuit material.

Acknowledgments

Thank you to God who has given me health and grace so that the writer can finish this research well, further thanks to the supervisor, and to the principal of SDN 1 Semangkak along with the teachers and students as well as thanks to my family for their support to me.

Author Contributions

Nurida Aryanti Conceptualized the research ide, designed of methodology, analyzed data, management and coordination responsibility Muthamainah Literatur review and provided critical feedback the manuscript.

Funding

This research was funded by Riset (Universitas Negeri Yogyakarta).

Conflicts of Interest

The authors declare np conflict of interest. The funders had no role in the design of the study.

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