

USING DISCOVERY LEARNING MODEL IN WRITING DESCRIPTIVE TEXT: A CASE OF THE 7TH GRADES STUDENTS AT SMPN 1 KARANGAWEN IN ACADEMIC YEAR 2024/2025

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ABSTRACT

*This study examines the effectiveness of the Discovery Learning model in improving descriptive writing skills among junior high school students. Utilizing a pre-experimental design with a one-group pre-test and post-test approach, the research involved seventh-grade students as participants. Before the implementation of the Discovery Learning model, the students' writing skills were relatively low, with an average pre-test score of **5.16 out of 10**, particularly in content (unity) and organization (cohesion and coherence). After applying the model, there was a notable improvement, as shown by the post-test average score of **8.55 out of 10**, indicating that students could better structure and develop their ideas. The statistical analysis revealed a t-test value of **5.415**, surpassing the t-table value of **1.686**, confirming a significant improvement. Therefore, the Discovery Learning model effectively enhanced students' descriptive writing skills, especially in content and organization.*

Keywords: *Discovery Learning, Descriptive writing, pre-experimental design..*

INTRODUCTION

In the evolving landscape of education, the demand for effective teaching methodologies remains a persistent challenge, particularly in improving students' language skills. Writing, especially descriptive writing, serves as a foundational aspect of communication, enabling individuals to articulate thoughts, create vivid imagery, and convey emotions with precision. Despite its importance, descriptive writing often poses difficulties for students, as traditional teaching methods prioritize rigid structures and rote memorization over creativity and critical thinking.

To address these limitations, Discovery Learning has emerged as a promising pedagogical approach rooted in constructivist theory. By emphasizing inquiry, experimentation, and active knowledge construction, Discovery Learning fosters deeper understanding, critical thinking, and engagement among learners. While previous research has extensively explored its effectiveness in STEM education and problem-solving domains

(Alfieri et al., 2011), limited studies investigate its impact on language skills, particularly in enhancing descriptive writing. This gap highlights the need to examine how Discovery Learning can be applied to improve students' descriptive writing abilities.

This study aims to evaluate the effectiveness of the Discovery Learning model in enhancing students' performance in writing descriptive texts. Specifically, it compares students' descriptive writing competence before and after being taught using Discovery Learning and contrasts it with conventional teaching methods. By analyzing content development, language use, and organizational structure, this research provides insights into the impact of Discovery Learning on writing achievement while also exploring students' perceptions and engagement with this innovative approach.

The findings of this study are expected to contribute to the scholarship on pedagogical innovation, offering valuable insights for educators in improving writing instruction and addressing challenges in language teaching.

LITERATURE REVIEW

Writing is an essential skill for indirect communication, enabling individuals to express thoughts, ideas, and emotions effectively. According to Harmer (2015), the writing process consists of planning, drafting, editing, and producing a final version, where writers determine purpose, structure content, and refine their work through revisions. Haris (2014) emphasizes key aspects of writing, such as grammar, organization, mechanics, vocabulary, and style, which shape the quality and tone of a text. Faradila (2021) categorizes writing into four types: descriptive, which uses vivid details; expository, which explains factual information; argumentative, which persuades using logic and evidence; and narrative, which tells a story to entertain readers. By understanding the processes, elements, and types of writing, individuals can develop strong and effective writing skills.

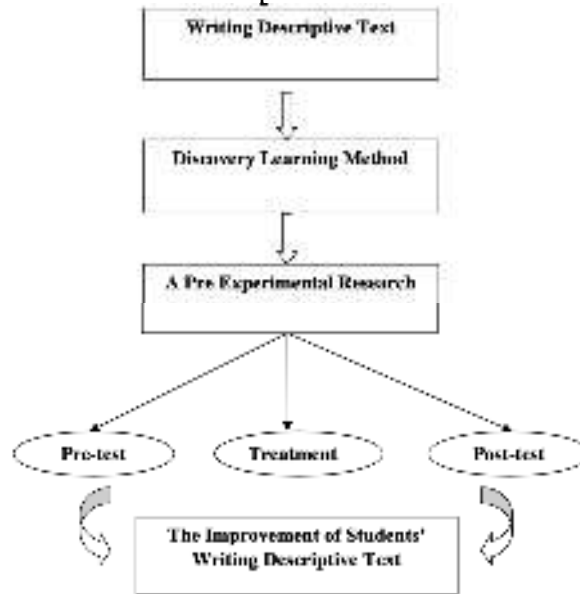
Descriptive text is a type of writing that provides detailed information about a person, place, object, or event to help readers visualize the subject clearly. According to Knapp and Watkins (2015), its purpose is to present the characteristics of an object thoroughly, allowing readers to form vivid mental images. Descriptive text typically uses the *simple present tense* for facts or permanent conditions, *adjectives* to describe characteristics, *specific nouns* for particular objects, and sometimes *figurative language* to enhance imagination. Gerot and Wignell (2014) explain that descriptive text has two main parts: *identification*, which introduces the object, and *description*, which elaborates on its features like size, color, and shape. Writing effective descriptive text involves choosing an engaging object, using rich and precise vocabulary, following the correct structure, and crafting clear yet engaging sentences.

Discovery Learning encourages students to think critically, explore independently, and develop problem-solving skills by actively constructing their own understanding. Instead of passively receiving information, students engage in six stages of learning: **stimulation**, where teachers spark curiosity with questions or challenges; **problem statement**, where students identify a problem or hypothesis; **data collection**, involving gathering information through research or observation; **data processing**, where students analyze and organize data; **verification**, comparing findings to the hypothesis; and **generalization**, where conclusions are drawn and applied to broader contexts. This approach fosters critical thinking, creativity, and deeper understanding, enabling students to effectively apply their knowledge in real-life situations.

According to Sobari, M. R., & Husnussalam (2019), the approach involves three key stages: **input**, where students are provided with necessary materials and knowledge about writing descriptive texts, including structure, features, and examples; **process**, where Discovery Learning is used to guide students through exploration, problem-solving, and

discovery activities, encouraging active participation and critical thinking through stages like stimulation, problem statement, data collection, data processing, verification, and generalization; and **output**, the final stage where students demonstrate their understanding by producing descriptive texts that reflect the skills and concepts acquired during the learning process.

This framework ensures a structured yet flexible approach to teaching writing, fostering deeper engagement and skill development in students:



METHODOLOGY

This research employ quantitative method. The quantitative approach uses pre-test, treatment, and post-test to measure writing improvement, with statistical analysis to compare results.

Data Collection:

The **pre-test** aimed to evaluate the students' initial knowledge and skills in writing descriptive texts. For this test, students were given an essay-based writing task to determine their baseline abilities.

The **treatment** it aims to provide an approach to students in understanding and learning the material of the description text, so that students are able to understand and understand more deeply the material about the description text. In this treatment, the discovery learning model is used as a teaching module for teachers and students.

The **post-test**, conducted after the treatment, was designed to measure students' progress and achievements in writing descriptive texts. In this test, students were asked to write descriptive texts about their classmates. This task allowed the researcher to analyze the impact of the teaching method on students' ability to apply descriptive writing techniques effectively.

Quantitative Data: Measured using test scores and statistical analysis. Formulas for Data Analysis:

Calculating the average student achievement:

$$X = \frac{\sum x}{N}$$

Where :

X = the mean score
 $\sum X$ = the sum of all score
 N = the total number of student

Calculating finding improvement's percentage:

$$P = \frac{X_2 - X_1}{X_1} \times 100 \%$$

Where :

P = The percentage of the students' improvement

X_1 = The mean score of pre-test

X_2 = The mean score of post-test

There are 2 types of writing, namely content and organization. Jeremy Harmer (2014) in *How to Teach Writing* emphasizes the importance of unity in writing, ensuring that the content is well-organized and focused on the main idea, so readers do not get confused. He also links unity with other elements like coherence and cohesion to form a cohesive and complete text. Harmer (2015) links unity with cohesion and coherence to form a complete text. Cohesion and coherence are crucial for organizing and connecting ideas in writing, ensuring that readers can easily follow and understand the content. Therefore, the researcher combines these elements under the concept of organization. The following is the criteria score of content:

No.	Score	Criteria
1	5	The transition from one idea to another goes smoothly and gives the reader a clear understanding that the topic is changing.
2	4	Some evidence of the transition of ideas.
3	3	There are some transition markers or transition markers that are repetitive.
4	2	There are transition markers.
5	1	There is no proof of concept.

The following is the criteria score of organization:

No.	Score	Criteria
1	5	The organization is appropriate for the writing task and contains a clear introduction, idea development, and conclusions.
2	4	Events are organized logically, but some parts of the example may not be fully developed.
3	3	The organization may be very simple or there may be evidence of irregularities.
4	2	The sample is compared if there are only a few intermittent sentences.
5	1	There are no complete sentences in the writing.

Classifying Students' Scores: A classification table is used to categorize student performance:

Score	Classifying
9.0 – 10.0	Excellent
7.8 – 8.9	Very good
6.6 – 7.7	Good
5.4 – 6.5	Fair
4.2 – 5.3	Poor
0.0 – 4.1	Very Poor

RESULT AND DISCUSSION

According to the data findings, seventh-grade students at SMP Negeri 1 Karangawen can enhance their writing abilities by being taught descriptive text writing using the Discovery Learning Model. The following is a manual calculation using Microsoft excel:

No.	Nama	Pre-test		Post-test	
		Content	Organization	Content	Organization
1	AJS	3	3	5	5
2	AN	3	2	5	5
3	ADO	3	3	4	5
4	AAL	3	3	5	5
5	AFA	2	2	3	3
6	AE	2	3	5	5
7	AD	2	3	4	5
8	AHJ	2	3	4	5
9	ASA	2	3	4	4
10	BBW	2	3	3	3
11	BMS	3	3	4	5
12	DA	2	3	5	5
13	DRPA	2	3	5	5
14	EKA	2	3	5	5
15	FTS	2	2	3	3
16	HDM	2	3	5	5
17	IRW	3	3	3	3
18	JVD	3	2	5	5
19	KAJ	3	2	5	5
20	LAA	3	2	4	5
21	MNM	2	2	4	4
22	MA	2	2	3	3
23	MFP	2	2	3	3
24	MLW	3	3	3	3
25	MRAP	3	3	3	3
26	MZM	2	2	5	5
27	NIA	2	2	5	5
28	NUE	3	3	5	5
29	RHS	3	3	5	5
30	RZA	3	3	4	5
31	RNA	3	3	5	5
32	RSAD	2	3	4	3
33	SPS	2	3	3	4
34	SF	2	3	4	5

35	SRL	3	3	5	5
36	VFP	3	3	4	4
37	YSA	2	3	4	4
38	ZA	2	3	4	4
	Jumah	93	103	159	166
	Mean	2.45	2.71	4.24	4.47

After being calculated using Microsoft excel, it will then be calculated using spss version 25. Here are the results of the calculations using spss version 25:

1. The Improvement of Students' Writing Descriptive Text in Content

The students' ability to write descriptive, content-focused texts is enhanced by the application of the Discovery Learning Method. The table that describes the students' content score below illustrates this.

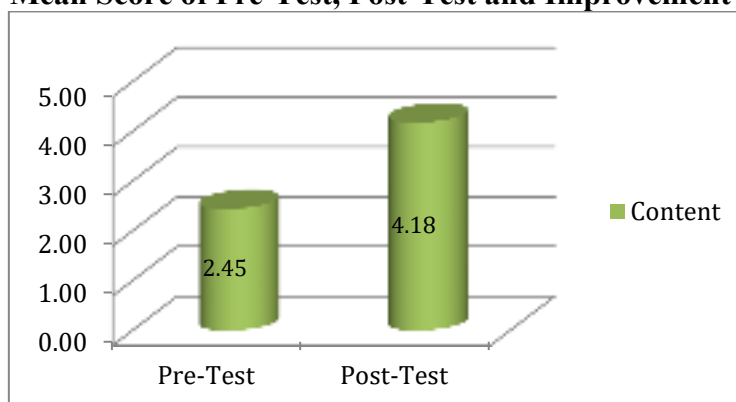
Table. 4.1 The Rate Percentage of Content

No	Indicators	Pre-Test	Post-Test	Improvement (%)
1	Content	2,45	4,18	70,61
	ΣX	2,45	4,18	70,61
	Mean	2,45	4,18	70,61

The table above shows a notable improvement in the content scores related to unity, with the mean score rising from **2.45** in the pre-test to **4.18** in the post-test, representing a **70,61% increase**. This indicates a significant enhancement in the students' ability to organize and present ideas cohesively.

The progress in students' writing skills is further illustrated in the chart below, which visually represents the improvement observed from the pre-test to the post-test. This data highlights the effectiveness of the intervention in fostering a better understanding of content unity and coherence in students' written work.

Chart 4.1 Mean Score of Pre-Test, Post-Test and Improvement of Content



2. The Improvement of the Students' Writing Descriptive Text in Organization

The following table clearly shows how the seventh-grade students at SMP Negeri 1 Karangawen improved their descriptive text writing skills, which were centered on organization, as a consequence of their assessment of the pre-test and post-test:

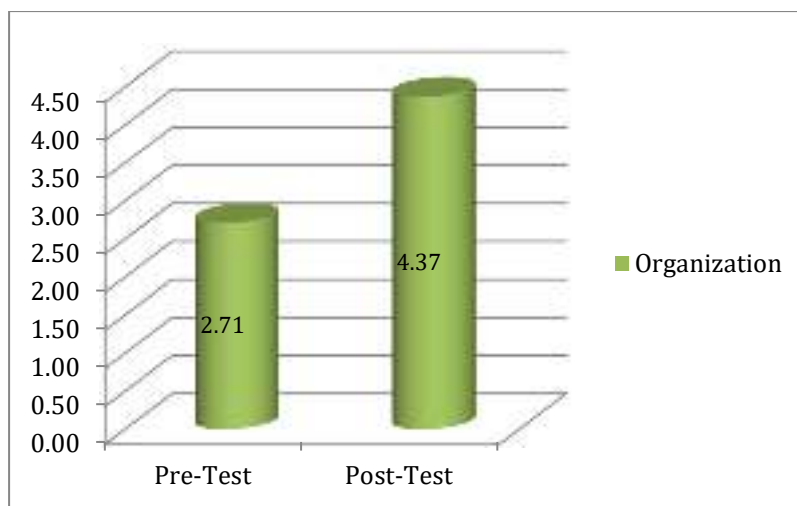
Table 4.2 The rate Percentage of Organization

No	Indicators	Pre-Test	Post-Test	Improvement (%)
1	Organization	2,71	4,37	61,29
	ΣX	2,71	4,37	61,29
	Mean	2,71	4,37	61,29

From the pre-test to the post-test, the table demonstrates a significant improvement in students' descriptive text writing skills, specifically in terms of organization. The organization score increased by **61,29%**, rising from a mean score of **2.71** in the pre-test to **4.37** in the post-test. This increase reflects the students' enhanced ability to structure their writing more effectively.

The following chart visually represents this improvement, showcasing how a greater number of students were able to demonstrate better organizational skills in their writing. This visual aid makes the increase in students' writing skills more apparent and provides a clearer understanding of their progress.

Chart 4.2 Mean Score of Pre-Test, Post-Test and Improvement of Organization



After calculating the students' results in terms of content and organization in writing descriptive texts, the researcher computed the mean scores for both the pre-test and post-test. These results are presented in the table below, which highlights the improvement in the students' writing skills for both content and organization. By comparing the pre-test and post-test mean scores, the researcher was able to demonstrate the effectiveness of the teaching method used in enhancing the students' ability to organize their ideas and present content clearly.

This table serves as a visual representation of how the students' writing abilities progressed over the course of the study.

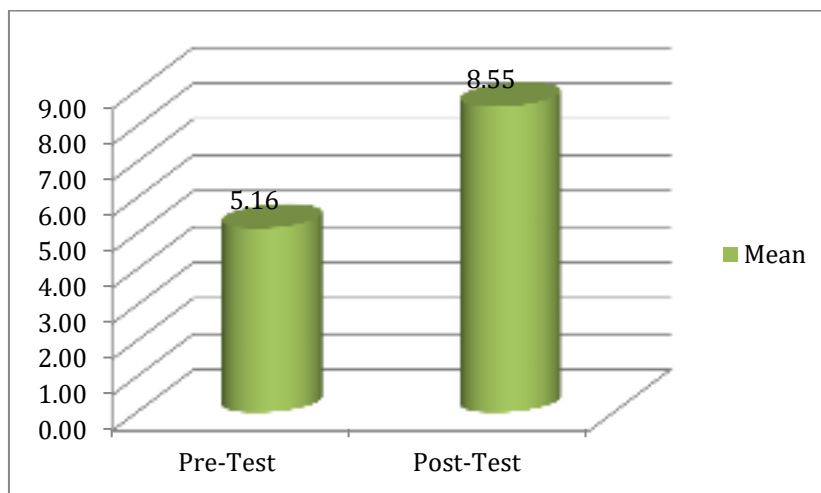
Table 4.3 Total Mean Score of Students' Writing Descriptive Text in Content and Organization

Variable	Mean Score	
	Pre-Test	Post-Test
Total mean score of students' writing descriptive text in content and organization	196	325
N	38	38
Mean	5,16	8,55

The data in the table above indicates a significant improvement in the students' scores from the pre-test to the post-test. In the pre-test, the mean score was **5.16**, but after the implementation of the **Discovery Learning Method**, the mean score increased to **8.55**. This improvement reflects the effectiveness of the teaching method in enhancing students' writing skills.

The following chart provides a clearer visual representation of this increase, showing the progression in students' performance and demonstrating how Discovery Learning helped improve their descriptive writing skills. The chart highlights the positive impact of the method on student learning outcomes.

Chart 4.3 Total Mean Score of Students' Writing Descriptive Text in Content and Organization



3. The Results of significance Testing

Based on the statistical analysis, a **t-test value** of **5.415** was obtained from the research data. This value was compared with the **t-table value** of **1.686** at a **0.05 significance level**. The comparison shows that the t-test value (**5.415**) is significantly greater than the t-table value (**1.686**), indicating that the observed difference is statistically significant.

This means that the null hypothesis, which posited no difference between the pre-test and post-test scores, can be rejected. The result supports the conclusion that the **Discovery**

Learning Method had a positive and significant effect on improving students' descriptive writing skills. The following calculation results illustrate this finding.

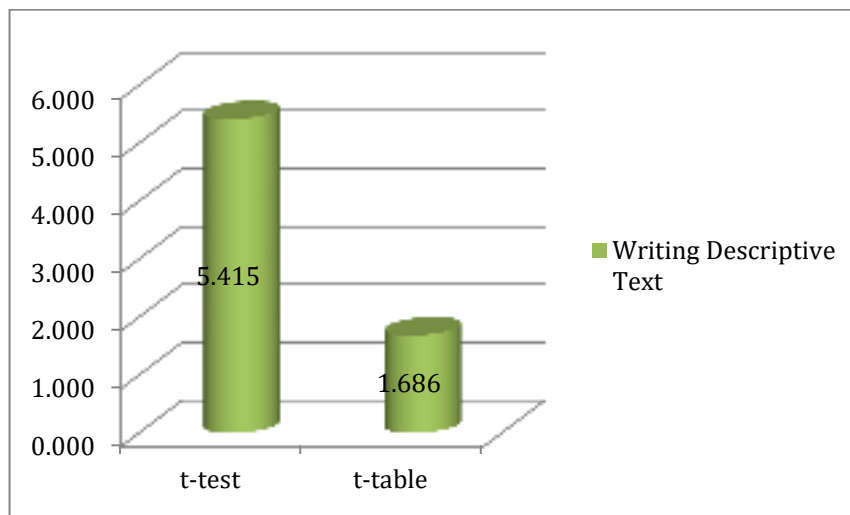
Table 4.4 T-Test Value of the Students' Writing Skill

Variables	t-test	t-table
Writing Descriptive Text	5,415	1,686

The table above presents a comparison between the students' **t-test** and **t-table** values to evaluate improvements in writing skills for descriptive texts, specifically in terms of content and organization after using the **Discovery Learning Model**. The **t-test value** (5.415) is significantly greater than the **t-table value** (1.686), indicating a statistically significant improvement in students' writing performance. This result suggests that the application of the Discovery Learning method was effective in enhancing both content and organizational skills in writing.

The following chart provides a clearer visual representation of this comparison, illustrating the substantial improvement in students' writing scores after the intervention. The chart further confirms the positive impact of the Discovery Learning Model on students' writing abilities.

Chart 4.4 Comparison of T-Test and T-Table of Students' Writing (5,415 > 1,686)



CONCLUSION AND RECOMMENDATION

Conclusions:

Before implementing the Discovery Learning Model, seventh-grade students at SMP Negeri 1 Karangawen displayed low writing skills, particularly in content (unity) and organization (cohesion and coherence), with an average pre-test score of 5.16 out of 10. This indicated the need for more effective instructional methods to improve their ability to organize and connect ideas. After using the Discovery Learning Model, students showed considerable improvement, with the average post-test score increasing to 8.55 out of 10, demonstrating that the model had successfully enhanced their descriptive writing skills, especially in content and organization. The t-test value of 5.415, which was significantly higher than the t-table value of 1.686, confirmed a meaningful difference between the pre-

test and post-test results, further supporting the effectiveness of the Discovery Learning Model in improving students' writing skills.

Suggestions:

1. **For English teachers:** Teachers are encouraged to use the Discovery Learning Model to improve students' writing skills, especially in content and organization. Engaging activities like brainstorming, guided writing sessions, and peer feedback should be incorporated. Regular writing exercises and constructive feedback will further enhance students' abilities. Teachers should also conduct consistent evaluations to track progress and adjust teaching strategies as necessary.
2. **For students:** Students should actively engage in activities involving the Discovery Learning Model and practice writing regularly. Peer-review sessions are an excellent opportunity for feedback, and students should utilize teacher guidance to refine their writing skills.
3. **For future researchers:** Future studies should examine the effectiveness of the Discovery Learning Model in various settings and with different student groups to validate its impact on writing skills. Research could also focus on its long-term effects and explore how technology integration may enhance its application. Additionally, investigating the model's potential to improve other language skills, such as speaking, listening, and reading, could provide a broader understanding of its educational benefits.

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REFERENCES

- Annisa, P. S. M., & Simanullang, R. (2022). Discovery Learning Model in Teaching Writing Descriptive Text for Seventh Grade of SMP Swasta Sro Matiti. *Journal of Innovation Research and Knowledge*, 2(4), 957-964.
- Astuti, N. (2022). *THE USE OF DISCOVERY LEARNING IN BUILDING STUDENT'S MOTIVATION IN WRITING DESCRIPTIVE TEXT A CASE OF 8 GRADE STUDENT OF SMP N 1 JUWANA* (Doctoral dissertation, Universitas PGRI Semarang).
- Feriyanti, D. (2014). DISCOVERY LEARNING AS A METHOD TO TEACH DESCRIPTIVE TEXT IN BUILDING STUDENTS' CHARACTER: A CASE OF SEVENTH GRADE STUDENTS OF SMP N 3 ULUJAMI. *ETERNAL (English Teaching Journal)*, 5(2).

- Harahap, N. Y. (2017). The effect of picture sequences strategy on students' writing procedure text ability: A study at the eleventh grade students of MAN Sipagimpar. *Liner Language Intelligence and Educational Research Journal*, 126-145. [Journal IPTS](#).
- Jasmani, F. (2023). The Effect of Discovery Learning Method to The Students' Ability Writing Descriptive Text Grade X at SMAN 1 Tanjung Tiram. *Journal of English Education, Linguistics, Literature, and Language Learning and Teaching*, 1(1), 4-8.
- LAILA NUR AZIZAH, L. N. A. (2019). *UTILIZING DISCOVERY LEARNING TO TEACH DESCRIPTIVE WRITING FOR JUNIOR HIGH SCHOOL STUDENTS* (Doctoral dissertation, UNIVERSITAS ISLAM MAJAPAHIT MOJOKERTO).
- Lestari, W. (2023). *The Application Of Discovery Learning Strategy In Teaching Writing Descriptive Text at The Tenth Grade Students of SMA Negeri 7 Palu* (Doctoral dissertation, Universitas Islam Negeri Datokarama Palu).
- Maulidya, M. E. (2023). *The Use of Discovery Learning Model in Teaching Writing Descriptive Text for The Secondary School Students of Grade X in Yogyakarta* (Doctoral dissertation, Universitas Islam Indonesia).
- Mufida, I., Hafifah, G. N., & Mayasari, L. (2015). *The implementation of discovery learning to teach speaking at the first grade students of SMP Institut Indonesia* (Doctoral dissertation, Universitas Muhammadiyah Surabaya).
- Mukharomah, L. (2015). *The use of discovery learning model to improve students' descriptive text writing* (Doctoral dissertation, Thesis).
- Muslim, L. L., Verawati, N. N. S. P., & Makhrus, M. (2021). Validity and reliability of learning tools based on Discovery Learning model to improve creative thinking ability and concept understanding. *Pendidikan Fisika Journal*, 9(1), 10-21. [Repository UNRAM](#).
- Purnamasari, A., & Argawati, N. O. (2020). The Use Discovery Learning Method in Teaching Writing Recount Text to the Tenth Grade of SMAN Ngamprah. *PROJECT (Professional Journal of English Education)*, 3(4), 470.
- Setiawan, S. (2021). Using KIT for kids in Discovery Learning model to increase interest toward science in elementary school students. *Elementary Journal*, 5(2), 176-185. [STKIP Siliwangi](#).
- Sobari, M. R., & Husnussalam, H. (2019). The use of discovery learning method to improve students' writing descriptive text. *PROJECT (Professional Journal of English Education)*, 2(2), 133-139.
- Syafar, N. F., Rahman, A., & Salija, K. Applying Discovery Learning Model in Teaching Descriptive Text Writing Viewed from Creativity at IAIN Palopo.

