



The Influence Of Collaborative Learning On Students' Writing Skills In Descriptive Text Of The Eleventh Grade

Hotnola Simanungkalit¹, Bernike Anggita Damanik², Rudiarman Purba³

English Education Department, Faculty Of Teacher Training And Education Universitas

HKBP Nommensen Pematangsiantar Pematangsiantar

Email: simanungkalithotnola@gmail.com, bernieke.damanik@uhn.ac.id, rudiarmanpurba010587@gmail.com

Article History:

Received: 10 July 2025

Revised: 16 October 2025

Published: 10 December 2025

Abstract

Writing skills are one of the important skills in learning English, especially in writing descriptive texts. However, students often have difficulty developing ideas, using the right vocabulary, and constructing sentences in accordance with the structure of descriptive texts. To overcome this problem, this research examines the influence of collaborative learning on the descriptive writing skills of XI grade students at SMA Negeri 2 Pematangsiantar. This research used a quantitative approach with a quasi-experimental design. The research subjects involved 61 students from two sample classes, namely XI-7 (30 students) as the experimental class and XI-10 (31 students) as the control class, using purposive sampling. The experimental group was taught using Collaborative Learning, while the control group was taught using conventional methods. Data were collected through pre-test and post-test written tests, then analyzed using an independent sample t-test. The results showed that the average pre-test scores for the experimental and control classes were 55.67 and 51.26, respectively, while the post-test scores increased to 82.13 and 71.19. Thus, the experimental class experienced an increase of 26.46, while the control class only increased by 19.93. This comparison shows that the increase in the experimental class score was higher than that of the control class. The t-test produced a significance value of $0.000 < 0.05$, which means that the null hypothesis (H_0) was rejected and the alternative hypothesis (H_a) was accepted. This indicates that there is a significant difference between students taught using collaborative learning and students taught using conventional methods. Based on the research findings, it can be concluded that the use of collaborative learning significantly improves students' writing skills in descriptive texts

Keywords: Collaborative Learning, Writing Skill, Descriptive Text, Quasi- Experimental Research

INTRODUCTION

Writing is a language skill that students must master. Because with good writing skills, they will be able to organize and produce structured and quality writing. This activity also allows students to convey their thoughts, feelings and desires systematically and logically. In addition, good writing skills can also have a positive impact on speaking skills, because through the writing process, students are trained to choose the right vocabulary, compose sentences in a structured manner, and organize ideas in a guided manner. According to Ramadhani (Downie, Gao, Bedford, Bell, & Kuit, 2021) through writing, students can not

only express their feelings and ideas, but also demonstrate how they communicate with others by presenting facts and ideas. In addition, Dana and Dharmayanti (Mourtzis, Siatras, Angelopoulos, & Panopoulos, 2020) state that writing is a language skill used to articulate ideas or opinions through words arranged into sentences, which then form paragraphs. Therefore, writing is an important skill that not only supports overall language proficiency but also serves as an effective means for students to think critically, express themselves, and communicate in writing with proper structure. This plays a significant role in students' academic development.

However, writing skills are considered one of the most difficult aspects of language for students to master because it requires high focus and gradual adherence to various criteria, such as the use of correct grammar, appropriate word selection, coherence between sentences, and interparagraph linkages. In order for writing to be well understood by readers, students must be able to organize ideas systematically, present clear main ideas, and be supported by logical reasons (Astra, Wahyuni, & Nasbey, 2015) . Difficulties in writing come not only from the technical aspects of language, but also from critical thinking skills and understanding of the topic being written about. Although writing lessons have been given at school, in reality not all students are able to produce effective and communicative writing. As explained by Wibowo and Eka (Rashid, Yunus, & Wahi, 2019) many students still experience difficulties in writing despite having vocabulary and grammatical structures, especially when the given topic is not fully understood. This shows that writing skills demand more than just mastery of language, but also the ability to process and convey ideas coherently and meaningfully in writing.

Writing itself also encompasses various genres, each of which has a different structure, purpose and linguistic characteristics. Genre-based writing skills is a type of writing that focuses on its structure and language. According to this perspective, students should improve their writing skills, use the best writing style to convey their ideas, and speak the language that will be used to communicate effectively (Dewi, Maily, & Safitri, 2025) . According to Siahaan and Sinaga (Primadiati & Djukri, 2017) there are two main genres in English. These include recount, narrative, description, explanation, narrative, procedure, anecdote, spoof, report, analytic, discussion, and hortatorial expositions. Out of the two main types of texts, the researcher chose descriptive texts as the main focus of this study. Descriptive writing is one of the most important types of writing that students use to develop their writing skills. According to the school curriculum, students must be able to write descriptive texts, including in basic competencies. This indicates that students are expected to be able to produce descriptive writing independently in addition to understanding the structure and characteristics of the text.

Descriptive text is text that provides an overview of something the writer wants to convey to the reader. This type of text contains detailed descriptions of people, places, and objects. According to Ermita, Emzir, & Lustyantie (Gan, Menkhoff, & Smith, 2025) descriptive text is text used to describe a particular object in detail so that readers can get a

clear picture. In addition, Afrizal (Byrne, Kearney, & Sullivan, 2019) state that descriptive text is a composition that explains or describes something according to its actual condition. Thus, it can be concluded that descriptive text is a type of text that serves to provide a detailed and realistic description of an object so that readers can understand it clearly. To write this type of text, students need knowledge and skills. They must understand the language features, general structure, and social function of descriptive texts. Success in writing this text depends heavily on students' ability to observe objects, process information, and express it through written language that is communicative, clear, and coherent. However, despite descriptive texts being a common type of text already introduced to students, many students still struggle to write descriptions accurately and in accordance with linguistic rules.

Based on the results of observations and research experiences during internship program (PPL) at SMA Negeri 2 Pematangsiantar, there were still many eleventh grade students who had problems and difficulties in writing descriptive texts. The first problem is that students do not understand the structure of the text correctly. The second problem is that many students still make grammar mistakes such as the use of verbs (have/has). Third, students lacked ability to develop ideas or many students only wrote information briefly without explaining details or providing a complete picture of the object being described. In addition, the learning provided by the teacher which was only ordinary made some students experience difficulties because they only listened, sat, and wrote the material. Thus, the researcher concluded that the ineffective learning process made them unmotivated in learning and made it more difficult for them to understand the material. This difficulty is most likely caused by ineffective learning methods that are unable to motivate students or create an interesting learning environment. The right strategy is needed to overcome this problem and increase students' interest in writing. One strategy that can be applied is collaborative learning, which is proven to be able to help develop writing skills through active student participation.

Collaborative learning is basically a learning approach that emphasizes cooperation between students to achieve common learning goals. In its application in the classroom, this approach is often used as a learning strategy to encourage interaction, cooperation, and active participation of students in the learning process. According to (Hernández-Sellés, Pablo-César Muñoz-Carril, & González-Sanmamed, 2019) collaborative learning (CL) is a teaching strategy that encourages students to learn together in pairs or small groups of two to five people, with the aim of optimizing their own learning as well as the learning of other group members. In addition, Khalil (Sayaf, 2023) this collaborative learning strategy is an effective activity that can help students write well without fear of being wrong because they work in groups and make students more enthusiastic about learning from mistakes. Thus, collaborative learning is a learning strategy carried out in groups, where each member has an active role in the learning process, supports each other, and is responsible for the success of the group. This collaboration can be done between two students or in a larger group. One

of the collaborative learning techniques is collaborative writing where students work together in small groups to produce a piece of writing. In this process, each member of the group contributes from drafting ideas, drafting the outline, and writing. Research conducted by Bhandari (Krisdayanti, Murtafiah, Kholifah, & Yahya, 2023) entitled "Effectiveness of Collaborative Learning for Improving Learners' Writing Proficiency in English Classrooms" shows that collaborative learning is more effective than individual learning or conventional method in improving students' writing skills, mainly because it encourages them to interact with classmates and group members. Through this process, students are required to actively engage in understanding the material related to the topic through group work, while also taking responsibility for the progress of their group's learning (Arifani, Asari, Anwar, & Budiando, 2020).

The process of writing can be enhanced by applying collaborative learning strategy. Activities such as group discussions, peer feedback, idea generation, shared writing tasks, role division, reflection, and classroom dialogue allow students to gain a deeper grasp of how writing works. When learners are organized into small groups, they have the opportunity to exchange thoughts, express perspectives, and plan their work before composing their individual texts. This collaborative approach encourages creativity, enriches perspectives, and helps students understand the important elements of composing a piece of writing. In addition, the teacher's role as a guide provides the necessary direction and support; ensuring that students understand the goals, managing group dynamics, and providing assistance when needed. Overall, this strategy creates a culture of collaborative and positive communication that ultimately improves students' writing skills (Khairani, Suyanti, & Saragi, 2020).

Based on the explanations and considerations that have been presented above, the application of the use of collaborative learning in the learning process and how much influence the strategy has on students' writing skills on descriptive text is the reason for the researcher to conduct research with the title "The Influence of Collaborative Learning on Students' Writing Skills In Descriptive Text of The eleventh Grade at SMA Negeri 2 Pematangsiantar".

METHOD

The method used in this research was a quantitative method. As stated by Goerten (2017, p.12), quantitative research aims to generate precise data and reliable measurements that can be statistically analyzed, emphasizing the systematic collection and numerical analysis of data.

This research implemented an experimental research design to examine the influence of collaborative learning on students' ability to write, particularly in composing descriptive texts. Creswell (M L Evhlin, Fidhyallah, & Zakiah, 2025) explains that an experimental design is a form of quantitative research aimed at determining whether a specific action or treatment had an effect on the participants. The main focus of this study was to analyze the

relationship between the independent variable (collaborative learning) and the dependent variable (students' writing ability), which was used to test the cause-and-effect relationship.

This research design was quasi-experimental. According to Napitupulu et al. (Marcia Lusiana Evhlin, Fidhyallah, & Zakiah, 2025) quasi-experiment means comparing a control group with an experimental group that both experience different treatments. In this design, two groups were compared to test the effectiveness of using a particular method, in this case, collaborative learning in writing instruction. One group was intentionally given the treatment (collaborative learning), while the other group acted as a control group that did not receive the treatment, so that the researcher could measure how much influence the experimental variable had.

In this quasi-experimental design, there were two groups, namely the experimental group, which was deliberately given collaborative learning treatment, and the control group, which used conventional teaching methods without such treatment. The existence of a control group allows researchers to compare and measure the extent of changes caused by experimental variables.

The researcher carried out this research at SMA Negeri 2 Pematangsiantar, which is located on Jl. Patuan Anggi No.8, Simalungun Regency, kota Pematangsiantar, North Sumatra Province. In quantitative research, determining the population and sample was a very important step because it formed the basis for the data collection process. With a clear population and sample, research was conducted in a targeted manner and the results accurately reflected the actual conditions. According to Creswell (Casañ, Alier, & Llorens, 2021) the population was a group of individuals who had the same characteristics. The population in this research was all students in grade XI of SMA Negeri 2 Pematangsiantar in the 2025/2026 school year, which consists of 11 classes with 35-36 students per class. The total number of grade XI students in all classes is 391 students.

Samples were used in research as representatives of populations that were too large to be studied thoroughly. By taking a portion of the population, researchers obtained relevant data and draw conclusions that applied generally. According to Creswell (Ilma, Adhelacahya, & Ekawati, 2021) sample was a portion of the population selected to participate in the research. The sampling technique used in this research was purposive sampling, which was a sampling technique based on certain considerations or objectives of the researcher. In other words, the researcher chooses the sample deliberately because it is considered to represent the characteristics that were in accordance with the research needs. According to Sugiyono (Rojabi, 2018) purposive sampling was a sampling technique with certain considerations made by the researcher, for example, because the subject was considered to best understand the research problem. In this research, there were two classes that serve as samples, namely class XI-7 consisting of 35 students, as the experimental class that receives collaborative learning treatment, and class XI-10 consisting of 35 students, as the control class that did not receive treatment. Thus, the total sample in this research was 70 students.

The data in this research were analyzed using statistical analysis techniques. Next, the researchers compared the pre-test and post-test scores of students in the experimental group and the control group. To analyze the collected data, the researchers used the t-test formula to determine the influence of collaborative learning on students' descriptive writing skills. Before conducting the t-test, data normality and homogeneity tests were performed. Data calculations were performed using IBM SPSS software version 24 for Windows.

RESULT AND DISCUSSION

Data Analysis of The Research

The research data obtained from the pre-test and post-test in the experimental class and control class were systematically organized and presented. These data formed the basis for the presentation of the research results.

This section presents statistical data from the pre-test and post-test results in the experimental and control groups. Data is gathered through written tests that focus on students' abilities to write descriptive texts. This lesson aims to understand how students' learning progresses after receiving different assignments from each group. Accordingly, the data obtained from the pre-test and post-test serves as a foundation for analyzing the differences in learning outcomes between the experimental and control groups (Fauzi, Wardhani, Puspita, Pratama, & Rahayu, 2021).

In this research, the experimental group was conducted by implementing a collaborative learning strategy as a means of increasing student writing proficiency, whereas the control group employed a traditional method. Treatment is given two times in this study. Through this design, researchers may compare the learning outcomes of two groups of students. The results of these two tests are used primarily as data to understand the impact of collaborative learning on students' writing in descriptive class at SMA Negeri 2 Pematangsiantar.

Based on preliminary research in the eleventh grade at SMA Negeri 2 Pematangsiantar, students need assistance because their descriptive writing skills are still low. All of the students in the second grade at SMA Negeri 2 Pematangsiantar during the 2025–2026 academic year make up the population in this research. Sample is divided into two groups. One group is used as a control group and another group as an experimental group (Harwati & Rokhmat, 2021). The total number of students is 61, consisting of three students from the experimental school and three students from the control school. The control class is taught using the traditional method (without collaborative learning). experimental class.

Before the treatment, a pre-test was carried out on Monday, September 1th, 2025, during the first lesson. The test was written, was designed to measure students' descriptive writing skills. Afterward, students in the experimental class received treatment by applying the collaborative learning strategy during two meetings with a total of six lessons.

experimental class, which received treatment using the strategy. The learning process took place conventionally, where the learning process was more focused on teacher explanations and individual student work (Prihartyasningrum, Sutiyono, & Wiratno, 2019).

The pre-test was carried out on August 29th, 2025, in the form of a written test, where students were asked to write a descriptive text. After all the results were collected, the researcher explained the material and closed the lesson with a prayer. In the next meeting, the researcher focused only on the post-test. The post-test was conducted on September 3th, 2025. At the beginning of the lesson, the researcher again explained the purpose of the test. Students were then asked to write a descriptive text, just as they did during the pre-test. After all the results were collected, the researcher closed the lesson with a prayer together.

The Analysis of Data

Pre-tests and post-tests from each sample, both the experimental class and the control class, were collected as part of this quantitative study and then analyzed further. The researchers obtained the students' writing test results on descriptive texts using a quasi-experimental research method. The assessment was based on writing skill assessment criteria.

Descriptive Analysis

The amount of research data, maximum and minimum values, mean, and other characteristics are described and analyzed using a statistical approach.

Table 1. Descriptive Analysis

Descriptive Statistics						
	N	Minimum	Maximum	Mean	Std. Error	Std. Deviation
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
pre-test Ex	30	37	70	55.67	1.387	7.595
post-test Ex	30	72	96	82.13	1.130	6.191
pre-test Control	31	36	61	51.26	1.283	7.146
post-test Control	31	60	82	71.19	.967	5.382
Valid (listwise)	N30					

Independent T-test

Table 2. Independent T-test

Independent Samples Test		Levene's Test for Equality of Variances		t-test for Equality of Means		Sig. (2-tailed)		Std. Error Difference		95% Confidence Interval of the Difference	
		F	Sig.	T	df			Lower	Upper		
Independent Samples Test	Equal variances assumed	.367	.547	7.373	59	.000	10.940	1.484	7.971	13.909	
	Equal variances not assumed			7.356	57.301	.000	10.940	1.487	7.962	13.918	

Based on the results of the Independent T-test in the table above, a significance value (Sig. 2-tailed) of $0.000 < 0.05$ was obtained. This indicates a significant difference between the post-test scores of the experimental class and the control class. Thus, the null hypothesis (H_0) is rejected and the alternative hypothesis (H_a) is accepted.

The difference in post-test scores proves that the Collaborative Learning strategy has a positive effect on students' descriptive writing skills. Students who learn through Collaborative Learning are able to show better results than students in the control class who learn using conventional methods (Permatasari, 2017). In other words, the use of the Collaborative Learning strategy contributes significantly to improving the descriptive writing skills of eleventh grade students at SMA Negeri 2 Pematangsiantar.

Research Findings

Base on the data analysis, the research question in answered as follows: The students' writing skill in descriptive text by using collaborative learning of the eleventh grade at SMA Negeri 2 Pematangsiantar can be seen in

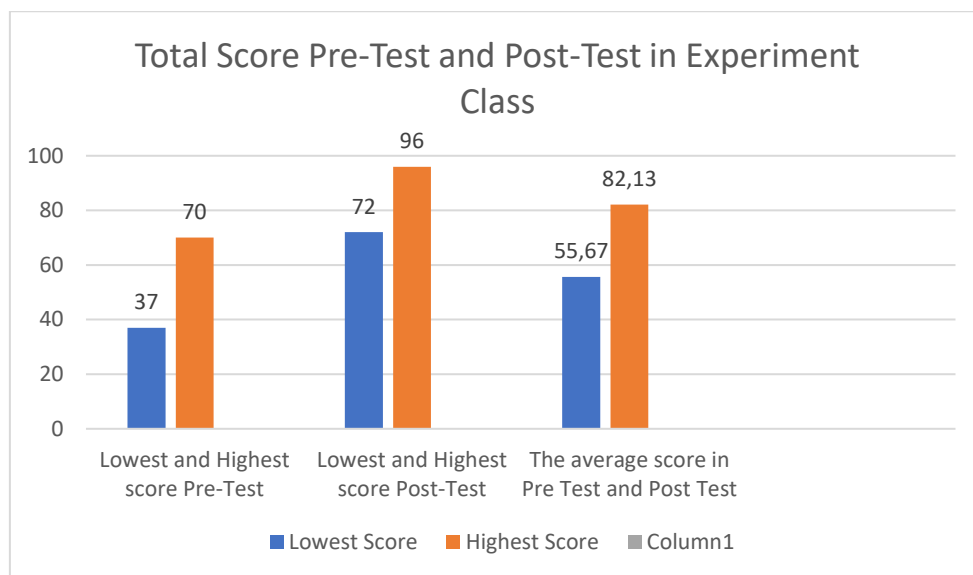


Figure 1. Score in Experimental

Based on Figure 4.1, it can be seen that the descriptive writing skills of eleventh-grade students at SMA Negeri 2 Pematangsiantar who were taught using the collaborative learning showed a significant improvement. In the pre-test, the lowest score was 37 and the highest score was 70, with an average of 55.56. After being taught using collaborative learning, the post-test results showed a clear improvement, with the lowest score rising to 72, the highest score reaching 96, and the class average increasing to 82.13. This data proves that the application of collaborative learning has a positive effect on the descriptive writing skills of eleventh grade students at SMA Negeri 2 Pematangsiantar (Hamzah, Hamzah, & Zulkifli, 2022). In addition, the findings also show that through collaborative learning, students are more active in discussions, give each other feedback, and are able to work together in developing ideas and descriptive paragraphs. Interaction between students helps them improve their grammar, vocabulary, and text structure (Rashid et al., 2019). This is in line with the improvement in their scores, as collaboration encourages students to learn from each other and strengthen their understanding of descriptive writing. The students' writing skill in descriptive text without using collaborative learning of the eleventh grade at SMA Negeri 2 Pematangsiantar can be seen in Figure

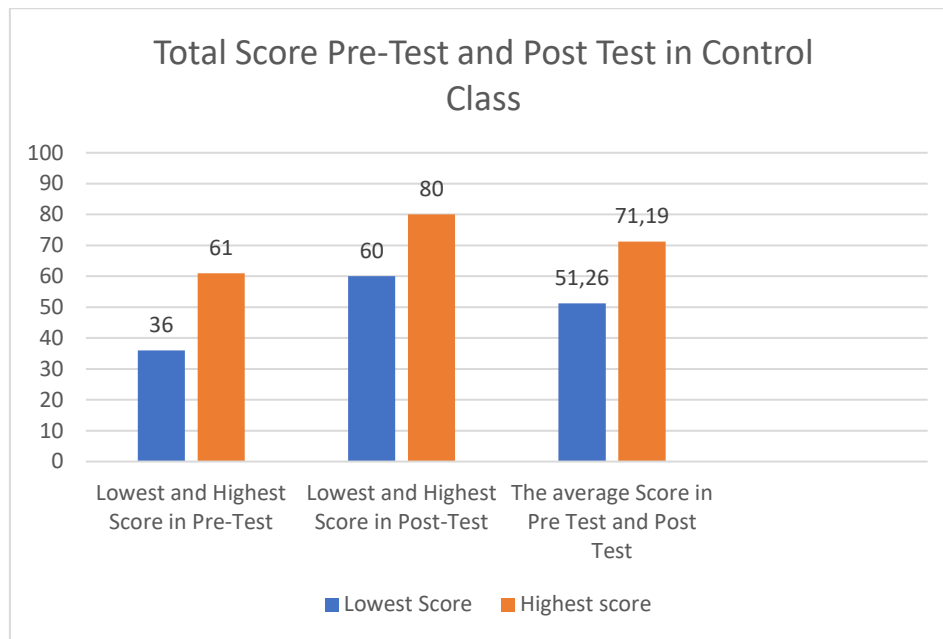


Figure 2. Score in Control

Figure 4.2 shows the results of the control class, where students were taught using conventional methods (without collaborative learning). In the pre-test, the lowest score was 36 and the highest score was 61, with an average of 51.26. After the learning process, the post-test showed an improvement, with the lowest score rising to 40, the highest score reaching 80, and the average increasing to 71.19. These results indicate that although students' descriptive writing skills developed through conventional learning, the improvement was not as significant as that achieved by the experimental class using the collaborative learning strategy. Findings from the control class show that conventional methods can still help students improve their descriptive writing skills, especially in understanding text structure and correcting basic errors in grammar and vocabulary (Altunkaya & Ayranci, 2020). However, because learning takes place individually and interaction between students is very limited, their progress tends to be slower. The lack of discussion, exchange of ideas, and opportunities to give each other feedback means that students do not gain the rich learning experience that they do in the experimental class. This explains why the improvement in grades in the control class is not as significant as in the class taught using collaborative learning strategies (Sreena & Ilankumaran, 2018).

The significant influence of collaborative learning on students' writing skill in descriptive text of the eleventh grade at SMA Negeri 2 Pematangsiantar can be seen in Figure

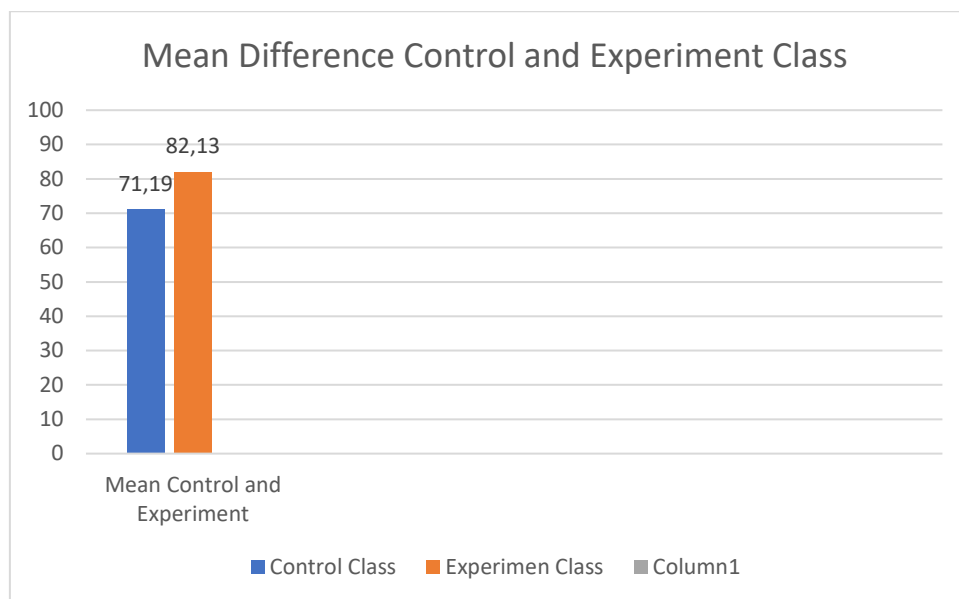


Figure 3. Mean difference control and experiment class

Figure shows a comparison of the post-test average scores between the control class and the experimental class. The control class obtained an average score of 71.19, while the experimental class taught using the collaborative learning strategy achieved a higher average score of 82.13. The T-test results based on the above scores using IBM SPSS V.24 showed a significance value of 0.000, where $0.000 < 0.05$, which means that the null hypothesis (H_0) was rejected and the alternative hypothesis (H_a) was accepted. Thus, it can be concluded that collaborative learning significantly improves the descriptive writing skills of students in class XI-7 at SMA Negeri 2 Pematangsiantar.

Discussion

After conducting the research, analyzing the data, and testing the hypothesis, the main focus of this research is to examine the influence of collaborative learning on improving the descriptive writing skills of eleventh grade students at SMA Negeri 2 Pematangsiantar. This research aims to determine whether the use of collaborative learning has a significant influence on students' descriptive writing skills. It also aims to examine the differences in results between the experimental class, which was given collaborative learning, and the control class, which did not implement collaborative learning.

The results showed that the experimental class taught using collaborative learning experienced an increase in average scores from 55.67 on the pre-test to 82.13 on the post-test, while the control class only increased from 54.67 to 71.19. Thus, the experimental class that received collaborative learning showed much more significant progress than the control class, which, although it experienced an increase, was on a smaller scale. This shows that collaborative learning effectively improves students' writing skills (Febriyanto & Yanto, 2019).

These findings are in line with several previous studies. Research by Liguan, G. F. (Haerazi & Irawan, 2020) shows that the application of collaborative learning results in a

significant improvement in students' writing skills, where collaborative strategies have been proven to help students develop ideas and compose better writing. These results are in line with research that also found that students taught with collaborative learning acquire better writing skills than students who learn with conventional methods. Furthermore, Rahmawati's (Irawan, 2019) research shows that students taught using collaborative learning show more significant improvement than students who learn traditionally, especially in writing narrative texts. These findings are in line with this research, which confirms the effectiveness of collaborative learning, although there is a difference in the focus of the texts studied, namely narrative in Rahmawati's study and descriptive in this research.

Apriliansa's (2022) research also confirms that collaborative writing is more effective than conventional learning in improving students' writing skills. The results show that collaboration in writing can produce more structured and higher quality writing. My research found similar results, although with a more specific focus on descriptive writing, thus expanding the context of the application of collaborative strategies. Meanwhile, Haswirna's (Mariana, Purnomo, & Firdaus, 2018) research found that collaborative learning combined with photo media can improve students' descriptive writing skills. The similarity with my research is that both show that media combined with collaboration makes it easier for students to express their ideas. However, the difference lies in the results, where Haswirna's research emphasizes the ease with which students express ideas through visual stimuli, while this research shows that students not only find it easier to write but also produce more varied and detailed descriptions with the help of picture media (Graham et al., 2019)

Overall, the results of this research confirm that collaborative learning can have a significant impact on improving students' descriptive writing skills. These findings are useful for students who previously tended to rely on individual writing learning or conventional method that did not provide much room for interaction. Through collaboration, students gain a more meaningful learning experience, as they can exchange ideas, give each other feedback, expand their vocabulary, organize their ideas, and compose clearer descriptions (McMaster et al., 2020). Collaborative writing activities also boost students' confidence, as they can learn from their peers and correct their mistakes through discussion. From a theoretical perspective, the findings of this research support the view that collaborative learning is an effective strategy for improving descriptive writing skills. Collaboration provides opportunities for students to participate actively, find errors in their writing, receive direct feedback, and improve their writing. Thus, collaborative learning not only improves technical writing skills but also fosters a spirit of cooperation and a sense of responsibility in learning

CONCLUSION

Based on the findings and discussion in the previous chapter, the following conclusions can be drawn:

1. Students' descriptive writing skills through collaborative learning have improved significantly. This can be seen from the average score of the experimental class, which increased from 55.56 in the pre-test to 82.13 in the post-test. This improvement covers vocabulary, grammar, content, and writing organization. This means that collaborative learning strategies provide students with opportunities to discuss, give each other feedback, and compose texts together, thereby improving the quality of their writing compared to before the treatment.
2. Students who were taught without using collaborative learning (control class) also experienced improvement, but it was not very significant. Their average score rose from 51.26 (pre-test) to 71.19 (post-test). Although there was progress, the results were still lower than those of the experimental class. This shows that conventional methods can still improve students' writing skills, but are not yet able to optimally overcome students' difficulties in terms of idea development, text structure, and vocabulary application.
3. There is a significant effect of collaborative learning on students' writing skills in descriptive texts. The results of the independent t-test show a significance value of $0.000 < 0.05$, which means that H_a is accepted and H_o is rejected. Thus, it can be concluded that collaborative learning has a significant influence on students' writing skills compared to conventional methods.

Suggestions

Based on the conclusions presented, the researchers offer several suggestions to English teachers, students, and future researchers to better understand the importance of applying collaborative learning in evaluating students' descriptive writing skills:

1. For Teachers English. It is suggested to use collaborative learning strategies as an alternative in teaching descriptive writing because this strategy can improve learning outcomes and active student participation
2. For Students. It is expected that students will be more active in group discussions and utilize cooperation to improve the quality of their writing.
3. For others researcher. It is hoped that research with a broader scope can be conducted, for example, on other types of writing skills or with a longer treatment duration to observe the consistency of the results.

REFERENCE

- Altunkaya, H., & Ayranci, B. (2020). The use of Edmodo in academic writing education. *Journal of Language and Linguistic Studies*, 16(1), 89-103.
<https://doi.org/10.17263/JLLS.712659>
- Arifani, Y., Asari, S., Anwar, K., & Budianto, L. (2020). Individual or collaborative Whatsapp learning? A flipped classroom model of EFL writing instruction. *Teaching English with Technology*, 20(1), 122-139. Opgehaal van <https://www.ethicallingua.org/25409190/article/view/234>

- Astra, I., Wahyuni, C., & Nasbey, H. (2015). Improvement of Learning Process and Learning Outcomes in Physics Learning by Using Collaborative Learning Model of Group Investigation at High School (Grade X, SMAN 14 Jakarta). *Journal of Education and Practice*, 6(11), 75–79. Opgehaal van <http://iiste.org/Journals/index.php/JEP>
- Byrne, J. R., Kearney, S., & Sullivan, K. (2019). Technology-Mediated Collaborative Learning: The Bridge21 Activity Model in Theory and Practice. In *Didactics of Smart Pedagogy* (bll 309–330). Cham: Springer International Publishing. https://doi.org/10.1007/978-3-030-01551-0_16
- Casañ, M. J., Alier, M., & Llorens, A. (2021). A collaborative learning activity to analyze the sustainability of an innovation using PESTLE. *Sustainability*, 13(16), 8756. <https://doi.org/https://doi.org/10.3390/su13168756>
- Dewi, A. R., Maily, M. E. W., & Safitri, F. N. C. (2025). *Deep Learning Dalam Pembelajaran Mi Tinjauan Literatur Dalam Meaningful Learning Mindful Learning Dan Joyful Learning*. 10(2), 584–592.
- Downie, S., Gao, X., Bedford, S., Bell, K., & Kuit, T. (2021). Technology enhanced learning environments in higher education: A cross-discipline study on teacher and student perceptions. *Journal of University Teaching and Learning Practice*, 18(4). <https://doi.org/10.53761/1.18.4.12>
- Evhlin, M L, Fidhyallah, N. F., & Zakiah, R. (2025). *Pengaruh Collaborative Learning dan Self-Efficacy terhadap Learning Motivation Siswa melalui Student Engagement di SMKN 8 Jakarta*. 1855–1865.
- Evhlin, Marcia Lusyana, Fidhyallah, N. F., & Zakiah, R. (2025). *Pengaruh Collaborative Learning dan Self-Efficacy terhadap Learning Motivation Siswa melalui Student Engagement di SMKN 8 Jakarta PENDAHULUAN Pendidikan berperan sebagai upaya terencana untuk mengembangkan potensi siswa dalam aspek pengetahuan , keterampilan*. 4, 1855–1865.
- Fauzi, M. R., Wardhani, D. S., Puspita, R. D., Pratama, D. F., & Rahayu, G. D. S. (2021). Enhancing Narrative Writing Skills of Elementary School Teacher Education Students through Concentrated Language Encounter (CLE) Model Assisted by Short Film Learning Media. *Elementary School Forum (Mimbar Sekolah Dasar)*, 8(2), 133–148. ERIC. Opgehaal van <https://ejournal.upi.edu/index.php/mimbar/index>
- Febriyanto, B., & Yanto, A. (2019). The Effectiveness of Photo Story in Multiliteracies Learning Towards Narrative Writing Skills of Fifth Grade Elementary School Students. *Al Ibtida: Jurnal Pendidikan Guru MI*, 6(2), 191. <https://doi.org/10.24235/al.ibtida.snj.v6i2.4943>
- Gan, B., Menkhoff, T., & Smith, R. (2025). Enhancing students' learning process through interactive digital media: New opportunities for collaborative learning. *Computers in Human Behavior*, 51, 652–663. <https://doi.org/10.1016/j.chb.2014.12.048>
- Graham, S., Harris, K. R., Fishman, E., Houston, J., Wijekumar, K., Lei, P.-W., & Ray, A. B. (2019). Writing skills, knowledge, motivation, and strategic behavior predict students'

- persuasive writing performance in the context of robust writing instruction. *The Elementary School Journal*, 119(3), 487–510.
- Haerazi, H., & Irawan, L. A. (2020). Developing Intercultural Language Learning (ILL) model to teach writing skills at Indonesian private universities. *EduLite: Journal of English Education, Literature and Culture*, 5(1), 43. <https://doi.org/10.30659/e.5.1.43-54>
- Hamzah, H., Hamzah, M. I., & Zulkifli, H. (2022). Systematic Literature Review on the Elements of Metacognition-Based Higher Order Thinking Skills (HOTS) Teaching and Learning Modules. *Sustainability*, 14(2), 813. <https://doi.org/10.3390/su14020813>
- Harwati, K., & Rokhmat, J. (2021). Development of student worksheet to improve creative and critical thinking ability of students in causalitic-learning model. *Journal of Physics: Conference Series*, 1816(1), 012038. <https://doi.org/10.1088/1742-6596/1816/1/012038>
- Hernández-Sellés, N., Pablo-César Muñoz-Carril, & González-Sanmamed, M. (2019). Computer-supported collaborative learning: An analysis of the relationship between interaction, emotional support and online collaborative tools. *Computers & Education*, 138, 1–12. <https://doi.org/10.1016/j.compedu.2019.04.012>
- Ilma, A. Z., Adhelacahya, K., & Ekawati, E. Y. (2021). Assessment for Learning Model in Competency Assessment of 21 st Century Student Assisted by Google Classroom. *Journal of Physics: Conference Series*, 1805(1), 012005. <https://doi.org/10.1088/1742-6596/1805/1/012005>
- Irawan, L. A. (2019). Practicing Genre-Based Language Teaching Model to Improve Students' Achievement of Writing Skills. *Indonesian Journal of English Language Teaching and Applied Linguistics*, 4(1), 9–18. [Opgehaal van https://ijeltal.org/index.php/ijeltal](https://ijeltal.org/index.php/ijeltal)
- Khairani, S., Suyanti, R. D., & Saragi, D. (2020). The Influence of Problem Based Learning (PBL) Model Collaborative and Learning Motivation Based on Students' Critical Thinking Ability Science Subjects in Class V State Elementary School 105390 Island Image. *Budapest International Research and Critics in Linguistics and Education (BirLE) Journal*, 3(3), 1581–1590.
- Krisdayanti, I., Murtafiah, W., Kholifah, T. S., & Yahya, F. H. (2023). Improving Learning Achievement of Plane Materials Through Tangram Media Using the Project Based Learning Model. *IndoMath: Indonesia Mathematics Education*, 6(2), 116. <https://doi.org/10.30738/indomath.v6i2.66>
- Mariana, I., Purnomo, S., & Firdaus, A. R. (2018). Improving Student Writing Skills in Indonesian Language Learning Narrative Writing Materials Using Writing Process Approach. *COLLASE (Creative of Learning Students Elementary Education)*, 1(3), 99–107.
- McMaster, K. L., Lembke, E. S., Shin, J., Poch, A. L., Smith, R. A., Jung, P.-G., ... Wagner, K. (2020). Supporting teachers' use of data-based instruction to improve students' early writing skills. *Journal of educational psychology*, 112(1), 1.
- Mourtzis, D., Siatras, V., Angelopoulos, J., & Panopoulos, N. (2020). An Augmented

Reality Collaborative Product Design Cloud-Based Platform in the Context of Learning Factory. *Procedia Manufacturing*, 45, 546–551.
<https://doi.org/10.1016/j.promfg.2020.04.076>

Permatasari, D. (2017). Pengaruh Penggunaan Media Big Book Writing Terhadap Keterampilan Menulis Bahasa Indonesia Siswa Kelas 5 Sd Negeri 1 Pilangbango Madiun. *Al-Bidayah : Jurnal Pendidikan Dasar Islam*, 9(1), 21.
<https://doi.org/10.14421/jpdi.2017.0901-03>

Prihartyasningrum, H., Sutiyono, A., & Wiratno, P. (2019). *Improving Students' Reading Comprehension Through Guided Reading Strategy At the Eleventh Grade of Smk Persada Bandar Lampung in the Academic Year 2020/2021*. 44(12), 2–8.

Primadiati, I. D., & Djukri, D. (2017). Pengaruh model collaborative learning terhadap peningkatan motivasi dan hasil belajar IPA siswa kelas IV SD. *Jurnal Prima Edukasia*, 5(1), 47–57. Opgehaal van <http://journal.uny.ac.id/index.php/jpe>

Rashid, A. A., Yunus, M. M., & Wahi, W. (2019). Using Padlet for Collaborative Writing among ESL Learners. *Creative Education*, 10(03), 610–620.
<https://doi.org/10.4236/ce.2019.103044>

Rojabi, A. R. (2018). Collaborative Strategic Reading (CSR) in Improving the English Department Students' Reading Comprehension Achievement. *JET ADI BUANA*, 3(2), 127–â. <https://doi.org/10.36456/jet.v3.n2.2018.1723>

Sayaf, A. M. (2023). Adoption of E-learning systems: An integration of ISSM and constructivism theories in higher education. *Heliyon*, 9(2), e13014.
<https://doi.org/10.1016/j.heliyon.2023.e13014>

Sreena, S., & Ilankumaran, M. (2018). Developing Productive Skills Through Receptive Skills – A Cognitive Approach. *International Journal of Engineering & Technology*, 7(4.36), 669. <https://doi.org/10.14419/ijet.v7i4.36.24220>