

USING ONLINE GRAMMAR CHECKER TO IMPROVE GRADE TEN STUDENTS' WRITING ACHIEVEMENT AND WRITING QUALITY

Tasniima Melatifajri Samboja (tasniimasamboja@gmail.com)¹

Susana Teopilus (susanateopilus@ukwms.ac.id)²

Alberik Ryan Tendy Wijaya (alberik@ukwms.ac.id)³

ARTICLE INFO

Submitted : 2024-06-19

Revised : 2024-10-29

Accepted : 2024-10-31

DOI:

<https://doi.org/10.33508/mgs.v52i2.5698>

ABSTRACT

Writing is a way to express one's ideas. Good writing is important to uphold various aspects of life, including education, work, and social interaction. However, writing is considered a difficult skill by students. This research aims to find out whether students' writing achievement and writing quality can be improved using the Grammarly application, which was proved by the data collected from the pre-test and post-test. The study used a pre-experimental method. The research subjects were grade ten students of a private high school in Surabaya. It showed that there was a significant difference in the writing achievements. The data showed that the mean of the pre-test was 82.641, the N was 32. The mean score of the post-test was 87.203. This study reveals that Grammarly has been proven effective in improving students' writing quality in terms of the three writing aspects, namely vocabulary, mechanics, and language use.

Keywords: *writing, online grammar checker, Grammarly*

INTRODUCTION

Writing is a way to express one's ideas. Good writing is important to uphold various aspects of life, including education, work, and social interaction. However, writing is considered a difficult skill by many students. Most students still need to fully understand language use, vocabulary, and mechanics to express their ideas clearly in their writing. According to Bass and Moore (2022), some problems also arise related to individual writing abilities, among students, professionals, and the general public. According to Ali and Zayid (2022), many students have difficulty in expressing ideas and thoughts in writing. They stated that a decline in writing ability is often linked to the use of digital technology, which causes learners to engage more through abbreviations, thus neglecting more formal and deep-thinking writing practices. In addition, Zhou (2022) states that today's students also need a more proper understanding of grammar and writing structures to convey messages effectively and create coherent writing.

This problem is also caused by time pressure, many students feel pressured in today's fast-paced environment, which can decrease the quality of their writing, such as a lack of punctuation. In addition, uncertainty about choosing the right words and fear of criticism can also hinder the writing process. According to Okyar (2023), lack of guidance in learning is also a scourge in this problem. This happens because of the limited

¹ Student, Widya Mandala Surabaya Catholic University

² Lecturer, Widya Mandala Surabaya Catholic University

³ Lecturer, Widya Mandala Surabaya Catholic University

classroom time so the learning process can be hampered and not channeled properly. This reduces the opportunity for students to hone their writing skills. Another thing that is a problem for students is a lack of motivation and self-confidence. Lack of confidence in writing skills is often the main obstacle. Students who feel they do not have adequate writing skills may lose motivation to practice and develop their skills (Yu, 2023).

One way to fix this problem is to give the students a solution with a tool that can help them show their mistakes. One such tool is Grammarly which is a digital writing tool that identifies errors in grammar, vocabulary, mechanics, and language style (Guo & Barrot, 2019). Grammarly is a form of technological sophistication in this digital education era, and the author wants to find out how much effect using this tool has on students who are improving their writing essays. According to Fahmi and Rachmijati (2021), Grammarly has a good impact on improving students' writing significantly. This research aims to find out whether students' writing achievement and writing quality can be improved using the Grammarly application. The result of the study is expected to show that by using Grammarly, students are able to find errors to fix them, and improve their writing achievement.

Writing Aspects

The definition of writing encompasses various aspects of writing, reflecting its multifaceted nature. Writing can be defined as communicating ideas, thoughts, and information through a system of symbolic representation, usually in written form (Flower & Hayes, 1980). It involves transforming thoughts and concepts into written language to convey meaning and engage in intellectual discourse (Bizzell, 1992). Writing is a tool for self-expression, knowledge construction, and participation in social and cultural practices (Street, 1984; Bereiter & Scardamalia, 1987).

Writing comprises several key aspects that contribute to its effectiveness and functionality. One crucial aspect is the use of language and grammar. Grammar provides the structural foundation for written communication, enabling clarity, coherence, and accuracy in conveying ideas (Crystal, 2008). It includes the rules and conventions governing the formation of sentences, usage of punctuation, and arrangement of words and phrases. Mastering grammar is essential for effective written expression, ensuring proper understanding and interpretation of the intended message.

Westwood (2008, p. 23) claims that writing is multifaceted and requires intricate thought processes. Writing entails combining elements, such as the central topic, word selection, organization, aim, readership, clarity, sequence, cohesion, and transcription. The researcher argues that writing involves more than just putting words on paper or a screen. To succeed, a writer must consider various components and ensure they all come together cohesively. One of the critical aspects of writing is selecting the right words to convey a message effectively. The researcher suggests that writing also requires careful consideration of the audience and their needs, expectations, and background knowledge. The structure of a piece of writing is also vital, with a clear beginning, middle, and end crucial for ensuring coherence and engagement. The researcher argues that writing must be well-organized to convey the message effectively. Clarity is another critical component of writing, with writers needing to ensure their message is easy to understand and free from ambiguity. In summary, according to Peter Westwood, writing is a complex process requiring writers to consider and integrate various components to ensure clear, engaging, and effective writing.

According to Jacobs et al. (1981), writing should have good content, organization, vocabulary, language use, and mechanics. Content refers to the main idea of the writing. The function of content in a piece of writing is to convey the writer's ideas. A good content in a piece of writing means that the writing should be relevant to the topic. Organization refers to how the ideas in the piece of writing are put together. A good piece of writing has its ideas organized logically. Vocabulary refers to the words that are used in the writing. Choosing the correct words in a piece of writing is necessary. Incorrect use of vocabulary makes ideas in the writing cannot be understood.

Language use refers to the use of grammatical rules in writing. Good language use in writing makes the relationship between words, sentences, and paragraphs more logical. Kane (2000) states that mechanics dictates how words are placed on paper. Spelling, punctuation, and capitalization are parts of mechanics in writing.

Norhartini (2020) states that writing is a production skill that requires writers to create a clear and understandable text or composition using good language. To produce effective writing, writers must be attentive to vocabulary, language use, content, organization, and mechanics. This research was focused on vocabulary, language use, and mechanics. The reason for this is that Grammarly can only detect mistakes in the aspects mentioned.

Writing Problems

One common challenge encountered in writing relates to grammar-related problems. When learners do not apply grammatical rules accurately, this may result in errors affecting the clarity and effectiveness of their written communication. Every language has its own grammar. Grammar makes the production and comprehension of utterances possible. Grammar plays an important role as a bridge that ensures people can communicate properly in both speaking and writing.

Harmer (2001, p. 12) describes grammar as the explanation of how words can alter their forms and be combined together to create sentences in a language. Gerot and Wignell (1994, p. 2) state that grammar is a theory of a language, and how it is put together and understood. As such, grammar involves the study of classes of words, their inflections, and their roles within sentences in a language.

There are several grammar aspects of writing, including verbs, cohesion, punctuation, conjunctions, etc. According to Halliday and Hasan (1976, p. 4), one of the many aspects of grammar is cohesion. Grammatical cohesion can be established by utilizing the grammatical elements of the text, which express the semantic relationship between the sentences in the text.

Common grammar-related problems include subject-verb agreement, verb tenses, word order, article usage, and punctuation errors (Silva, 1993). These issues can impede the reader's comprehension and undermine the writer's credibility. Addressing grammar-related problems in writing involves targeted instruction and practice. Pedagogical approaches such as explicit grammar instruction, error analysis, and corrective feedback can help learners develop grammatical proficiency (Ellis, 2006). Encouraging extensive reading and providing opportunities for authentic writing tasks also improve grammatical accuracy (Hyland, 2003).

There are several studies related to grammar problems in writing. A study conducted by Novariana, Sumardi, and Tarjana (2018) indicated that the incorrect use of tenses was among the most commonly found grammar problems in writing. Next, Alisha, Safitri, and Santoso (2019), in their research, revealed that language use problems were very common in students' writing. Students often found themselves unable to use the correct grammatical form in their writing. Their findings showed that many of the students used incorrect tenses in their writing. Students also used the incorrect connectors between sentences. Another grammar mistake or error students make is the incorrect use of word order. Several examples of this particular mistake or error are discussed below in the discussion part. Word order covers the placement of words in the sentence according to the grammatical rules. This mistake or error is also quite common.

Another common problem found in writing is vocabulary. Vocabulary is very important to the English language and other languages because it allows students to understand others' ideas and express their own ideas to others. Brown (2000) defines language competence as one of the basic knowledge of a language system, which includes its grammatical rules, vocabulary, and other pieces of the language, and how all the pieces fit together in a language. Without vocabulary in a language, nothing can be used to express anything. Vocabulary helps students

to understand and communicate properly. Additionally, according to Wilkins (1972), vocabulary can be defined as the words of the language; they can be used in single words or phrases to convey a meaningful idea.

According to Rohmatillah (2014), the problems and difficulties in vocabulary were various. One of the most common problems was spelling. Students often found it difficult to correctly spell the vocabulary they were using. The study by Rohmatillah (2014) also showed that students often confused words because they did not understand the meaning of the words properly. These difficulties made the students unable to convey their intentions properly in their writing. According to Aminah and Supriadi (2023), vocabulary problems were caused by the students' struggle to identify the correct meaning of a word. Students also used words in the incorrect context.

Kane (2000) states that mechanics dictates how words are placed on paper, which includes spelling, punctuation, and capitalization. Students should avoid using excessive commas, a common writing problem. Proper use of punctuation, such as full stops and commas, is important for the quality of the essay. Students should be aware of these writing issues and work to improve their writing achievement. Planning and organizing ideas can help to avoid these writing problems.

One example of a problem in writing mechanics is the incorrect use of punctuation. Punctuation problems can often need clarification for readers and detract from the quality of writing. Incorrect use of commas can lead to comma splices or run-on sentences. Misuse of apostrophes can make the intended meaning of a sentence clear. Missing or incorrect use of quotation marks can cause a reader to misinterpret the intended meaning of a passage. Colons and semicolons can be misused if their proper functions are not understood. Research by Tanasy and Nashruddin (2020) showed that punctuation problems were very common in writing. The research showed that some students forgot to add punctuation in their writing, especially the ' and " marks.

RESEARCH METHODS

This study, a pre-experimental design, observed the use of Grammarly to help the students with their difficulties in writing. In addition, this study also described the writing improvement in terms of vocabulary, mechanics, and language use in the students' writing essays after they were given the treatment of using Grammarly. This design was used for addressing the student's writing before and after using Grammarly.

The research instrument was a writing test used as the pre-test and post-test. In the pretest, the subjects were asked to write a recount text in 60 minutes. The subjects were given several topics, and they were asked to choose one. The topics were related to something they might have experienced in the past. The familiarity of the topics given to them helped them to express their ideas better in their writing. This is in line with what Westwood (2008:23) states that when the students are familiar with the given topics, they can be more focused in their writing. In the treatments, they were asked to write and revise their writing using Grammarly. After the treatments, in the post-test, the students were asked to write a recount text with the same topic as in the pretest, and then they were given access to Grammarly to revise their writing.

Thirty-two tenth-grade students attending a private senior high school were taken as the subjects of the study. They were given a pre-test, three treatments, and a post-test. Writing scores were obtained from the subjects' writing pre-test and post-test results. The scores were used to determine whether there was any improvement in their writing achievement, and the students' writings were used to describe the improvement in their writing quality.

Two raters scored the Pre-test and Post-Test results, and they were given the same rubrics. The pre-test and post-test scores were acquired by assessing the subjects' writings by utilizing a writing rubric focusing only

on language use, vocabulary, and mechanics. To ensure inter-rater validity, the researcher discussed the scoring system with both raters and gave them a forum to discuss any differences in their scores.

The result of the data analysis was done by comparing the scores from the pre-test to those of the post-test and comparing the subjects' writings before and after using Grammarly.

FINDINGS AND DISCUSSION

Findings

This research was conducted to determine Grammarly's effect on improving grade-10 students' writing performance. The pre-test was given before the treatments, and the post-test was given after the treatments. The two raters' results show an average score of 82.6 for the pre-test and 87.2 for the post-test. The following table shows the subjects' average scores.

Table 1. Pre-test and post-test score comparison

Sample	N	Mean	Std. Deviation	Std. Error Mean
Pre-test	32	82.641	4.137	0.731
Post-test	32	87.203	3.512	0.621

Table 1 shows that the mean score of the pre-test was 82.641, with a standard deviation of 4.137 and a standard error mean of 0.731. Meanwhile, the mean score of the post-test was 87.203, with a standard deviation of 3.512 and a standard error mean of 0.621. The N value shows the number of participants. Both the pre-test and post-test have the same value of 32 because only one class was used in the research.

Table 2. T-test Result

	Paired Differences					t	df	Sig (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair Pre-post test	-4.563	2.097	.37079	-5.319	-3.806	-12.305	31	0.0001

The results of the paired samples t-test provide information about the statistical significance of the difference between the pre-test and post-test. The mean shows a value of -4.563. The standard deviation is 2.097. The standard deviation is a statistic measuring the dispersion of a dataset relative to its mean. The standard error of the mean is 0.37079. The 95% confidence interval of the difference ranges from -5.319 to -3.806. This means there is 95% confidence that the population mean difference falls within this interval. The t statistic is -12.305. The degrees of freedom (df) are 31. The value of df is acquired by using the number of participants minus 1 (N-1). And, the significance level or the Sig (2-tailed) is 0.0001.

The t-test shows that the t-value is -12.305. However, the value of t should always be regarded as positive. Therefore, the t value is 12.305. Meanwhile, the t table shows a value of 2.040. This number was acquired from the critical value table. The comparison between the t value of 12.305 and the t table of 2.040 shows that the t

value is higher than the t table. Therefore, it means that the alternative hypothesis (H1) is accepted, and the null hypothesis (H0) is rejected.

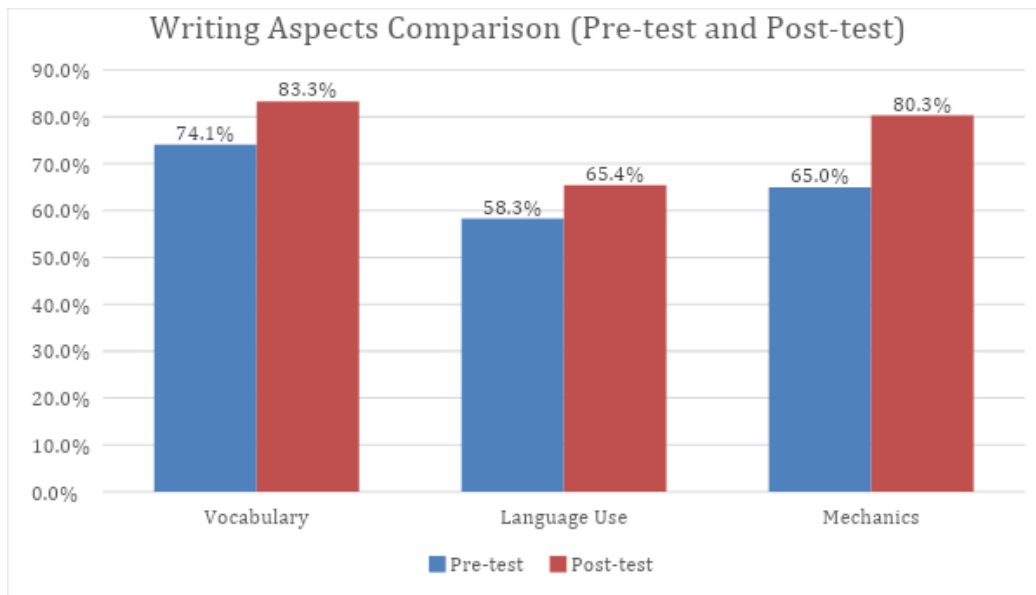


Figure 1. Comparison of the Three Writing Aspects

Differences were found in the results of the pre-test and post-test. Initially, the students only acquired 74.1% in vocabulary, 58.3% in language use, and 65% in mechanics in their pre-test. After receiving the treatments, the student’s overall scores in each aspect increased. In their post-test, the students acquired 83.3% in vocabulary, 65.4% in language use, and 80.3% in mechanics. The increase in score in mechanics shows the most significance, with an increase of 15.3% compared to their pre-test scores.

The results with the most significant value increase were found in the mechanics. This shows that the difference in scores on the aspect of mechanics in the pre-test and post-test is 15.3 percent. The difference in scores on the vocabulary aspect in the pre-test and post-test is 9.1 percent. Meanwhile, the difference in scores in the language-use aspect is 7.1 percent. This proves that Grammarly helps improve students' writing quality in mechanics, vocabulary, and language use, with the most significant increase in writing mechanics. Below are some of the examples acquired from the students’ works.

Table 3. Example of Language Use and Vocabulary Error

Initial	Pre-Test	Post-Test
BP	“My dad starts hitting me, either using both hands or using a broom stick.”	“My dad started hitting me, either using both hands or using a broomstick.”

In the pre-test, she used present continuous in her writing, which was incorrect because the genre is recount text. However, the language used was changed into the correct past form in the post-test. Another mistake or error that the grammar checker fixed was the vocabulary in the word “broomstick.” The student wrote the word incorrectly in the pre-test, but it was fixed in the post-test.

Table 4. Example of Language Use Error

Initial	Pre-Test	Post-Test
KH	“Long time ago when I was a fourth grade in the school, my mom want to take me for a Holiday.”	“A long time ago when I was in fourth grade in school, my mom took me for a holiday.”

After using Grammarly, his overall sentence has improved. The software was able to identify that the word “want” was redundant and suggested deleting it. The software also detected that the word “take” should be changed to “took” to correct the language used in his sentence. The students also changed “a” to “in” based on the suggestion of the software. The mechanics of his writing also improved in the post-test. The word “Holiday” should not use capitalization, but by error or mistake, the students wrote the word using capitalization. In the post-test, the word was written correctly. These suggestions improved the students’ sentences in the post-test.

Table 5. Example of Writing Mechanics Error

Initial	Pre-Test	Post-Test
JS	“One day I decided to take a trip to Tuban with my family.”	“One day, I decided to take a trip to Tuban with my family.”

In the pre-test, he didn’t use the comma after “One day.” Unfortunately, this simple error or mistake is also quite common in other students’ writings. Fortunately, this particular error or mistake is easily identifiable using the software.

Table 6. Example of Writing Mechanics and Language Use Error

Initial	Pre-Test	Post-Test
GIW	“After 6 days in Bali i went back to surabaya, overall i was enjoying this holiday,”	“After 6 days in Bali, I went back to Surabaya, overall, I enjoyed this holiday,”

In the pre-test, the student made mistakes or errors in the language use and writing mechanics. The student initially wrote “I” using “i”, which is incorrect. She also didn’t use a comma after the phrase, “After 6 days in Bali”. These mistakes or errors were fixed during the post-test. The software was also able to detect the tenses inconsistency in the writing. In the pre-test, she wrote part of her sentence using past continuous. This was fixed by the software in the pre-test by changing the tense into simple past tense.

Discussion

The t-test table shown in Table 2 indicates that the use of Grammarly can improve the students’ writing achievement. In relation to the writing quality, the results show that there are improvements, in particular in their vocabulary and grammar. This data matches the result of another research conducted by Guo and Barrot (2019). They found that Grammarly significantly improved the grammatical accuracy of participants' writing. Figure 1 also shows the specific increase in each aspect of writing.

On average, the students' scores increased by 15.3% during the post-test for writing mechanics. The students often forgot to add punctuation and capitalization in their pretest writing, possibly due to an error or a mistake. However, Grammarly was able to help the students by showing them what writing mechanics were missing in their writing.

The average score for language use also increases by 6.1%. The most commonly found mistake in the students' writing is in their consistency in using grammar. Students wrote using past tense in their first or second paragraph but used other tenses incorrectly in the other paragraph. Sometimes, they even used incorrect verb forms in their writing. This caused their writing to be confusing for the reader. However, the software detected proper language use by giving recommendations for correct language use to the students.

The average vocabulary score increases by 9.2%. As the example in the comparison section suggests, some students tend to add unnecessary words in their writing and sometimes use incorrect words to convey their message. Grammarly could detect these problems and suggest ways to fix them, such as removing unnecessary words and changing the word forms to suit its own suggestions.

As previously mentioned in the introduction, Grammarly has some limitations. The app version of the software requires the users to download it. This may become a problem for the students as they are using their own devices. It is possible that their device might not be compatible with the app version. The solution for this is to use the free website version. However, this version is limited to 500 words. Another issue is the need for teachers in classroom activities when using Grammarly. Grammarly provided the students with suggestions and corrections. However, the application does not explain the reason for the suggestions and corrections.

CONCLUSION

In conclusion, the present research indicates that using online grammar checkers as writing learning tools has been proven to increase students' writing achievements. This is shown by the significant difference in the writing achievements between the pretest and the post-test.

The research also shows that there is an increase in the scores of each writing aspect that is used in this research, which is vocabulary, language use, and mechanics. This study has proven the effectiveness of Grammarly in improving the students' writing quality. Specifically, in the aspects of vocabulary, mechanics, and language use. An online grammar checker, such as Grammarly, was able to help the students identify mistakes and correct them. Furthermore, the online grammar checker could also provide more effective sentences for the students to improve their writing, as shown in the analysis of their writing quality.

REFERENCES

- Aminah, M., & Supriadi, T. (2023). Writing Difficulties Faced by English Foreign Language Students. *Jurnal Ilmiah Hospitality*, 12(1), 253-262. <https://doi.org/10.47492/jih.v12i1.2663>
- Aripin, N., & Rahmat, N. H. (2020). Metacognitive Writing Strategies Model Used by ESL Writers in the Writing Process: A Study Across Gender. *International Journal of Asian Social Science*, 11(1), 1–9. <https://doi.org/10.18488/journal.1.2021.111.1.9>
- Alisha, F., Safitri, N., Santoso, I., & Siliwangi, I. (2019). Students' Difficulties in Writing Efl. *Professional Journal of English Education*, 2(1), 20–25.
- Brown, H. (2000). *Principles of Language Learning and Teaching Fifth Edition*. San Francisco University.
- Bizzell, P. (1992). *Academic Discourse and Critical Consciousness*. University of Pittsburgh Press. <https://doi.org/10.2307/j.ctt7zwb7k>
- Bereiter, C., & Scardamalia, M. (1987). *The psychology of written composition*. Lawrence Erlbaum Associates, Inc.
- Crystal, D. (2008). *A Dictionary of Linguistics and Phonetics (6th ed.)*. Oxford: Blackwell. <http://dx.doi.org/10.1002/9781444302776>

- Fahmi, S., & Rachmijati, C. (2021). Improving Students' Writing Skill Using Grammarly Application for Second Grade in Senior High School. *PROJECT (Professional Journal of English Education)*, 4(1), 69. <https://doi.org/10.22460/project.v4i1.p69-74>
- Guo, Q., & Barrot, J. S. (2019). Effects of Metalinguistic Explanation and Direct Correction on EFL Learners' Linguistic Accuracy. *Reading & Writing Quarterly*, 35(3), 261–276. <https://doi.org/10.1080/10573569.2018.1540320>
- Gerot, L., & Wignell, P. (1994). *Making sense of functional grammar*. New South Wales: Gerd Stabler.
- Harmer, J. (2004). *How to Teach Writing*. England: Pearson Education Limited.
- Hyland, K. (2003). *Second Language Writing*. Cambridge: Cambridge University Press.
- Hayes, J. R., & Flower, L. S. (1986). Writing research and the writer. *American Psychologist*, 41(10), 1106–1113. <https://doi.org/10.1037/0003-066X.41.10.1106>
- Halliday, M.A.K., & Hasan, R. (1976). *Cohesion in English (1st ed.)*. Routledge. <https://doi.org/10.4324/9781315836010>
- Jacobs, H. L., Stephen, A., Zinggraf, Deanne, R., Wormuth, V., Faye, H., Jane, B., Hughey. (1981). *Testing ESL Composition: A Practical Approach*. Rowley: Newbury House Publishers, Inc.
- Kane, T.S. (2000). *The Oxford Essential Guide to Writing*. Berkley Publishing Group: New York.
- Laurillard, D. (1979). The Processes of Student Learning. *Higher Education*, 8(4), 395–409. <http://www.jstor.org/stable/3446152>
- Nova, M. (2018). Utilizing Grammarly in Evaluating Academic Writing: a Narrative Research on Efl Students' Experience. *Premise: Journal of English Education*, 7(1), 80. <https://doi.org/10.24127/pj.v7i1.1332>
- Rohmatillah. (2015). A study on students' difficulties in learning vocabulary. *English Education: Jurnal Tadris Bahasa Inggris*, 6(1), 75-93. <http://dx.doi.org/10.24042/ee-jtbi.v6i1.520>
- Silva, T. (1993), Toward an Understanding of the Distinct Nature of L2 Writing: The ESL Research and Its Implications. *TESOL Quarterly*, 27(4). 657-677. <https://doi.org/10.2307/3587400>
- Street, B. V. (1984). *Literacy in theory and practice*. Cambridge University Press.
- Tanasy, N., & Nashruddin, N. (2020). The Problems on English Writing 1 Course: Paragraph. *Seltics Journal: Scope of English Language Teaching Literature and Linguistics*, 103-115. <https://doi.org/10.46918/seltics.v0i0.739>
- Westwood, P. (2008). *What teachers need to know about reading and writing difficulties*. Victoria: ACER Press.
- Wilkins, D. A. (1972). *Linguistics in Language Teaching*. Cambridge: MFT Press.