

IMPROVING STUDENTS' WRITING SKILL USING VIRTUAL WRITING TUTOR: AUTOMATIC CORRECTIVE FEEDBACK

Salma Viantika¹, Dangin²
Universitas Mercu Buana Yogyakarta^{1,2}
salmaviantika03@gmail.com

ABSTRACT

Technological advances are becoming a superior approach in the world of learning and education. Technology plays an important role in developing improved learning outcomes which are used as media or learning aids. The problem found was the low quality of students' writing skills, after observations students received assessments or feedback that were not detailed. Therefore, the research is to improve the quality of students' writing using the AI-based Virtual Writing Tutor platform. The study uses Classroom Action Research as a research design which is carried out cyclically in teaching research and is followed by increasing participant data results. This research involved 32 class XI students of Indonesian Senior High School for the 2023/2024 academic year. This research found that Virtual Writing Tutor can help improve students' writing performance. This can be seen through the average score which increased from the pre-test, starting from an average of 52.9, then increased in the progress-test to produce 63.2 and increased up to 75.6 in post-test. To find out responses from participants, interviews were conducted with a focus on strengths and weaknesses. Then, from the interview results, it was concluded that there were good impacts and bad impacts on the use of AI-based platforms.

Keywords: *Automatic Corrective Feedback, Virtual Writing Tutor, Writing Skill*

INTRODUCTION

Teaching English in Indonesia is increasingly becoming an emphasis for the next generation because remembering that it is not easy to develop students' abilities to use foreign

languages in several contexts. Moreover, Mantiri Oktavian (2023) found that Indonesians were not willing to have English as an additional language. The era of globalization shows the growth of various advanced technologies all over the world. Technology is one of the most important tools or applications that enable learners to create, generate and contribute knowledge in the form of information sharing, exploration and ideas to other learners and to other learners (Abdullah Raja Nazim, 2019).

Additionally, the advances in technology are likewise excellent approach in the world of learning and education. Teachers can use technology in their learning activities to make learning more creative, collaborative, and fun (Dash Bipin, 2022). There are several reasons why teachers should use technology: Technology enhances education, computers are intelligence tools, new technologies challenge us to rethink our students' work, provide stimulating opportunities for critical thinking, technology read short stories (Anggeraini Yentri, 2018). In this case, the use of technology in learning media will be an important part, because there are 21st century skills that teachers can apply in learning objectives. In other hand, technology is only a means of implementation, like a bridge from the garden to the house. Related to (Anggeraini & Afifah, 2017) they stated the way to conclude the digital stories specifically may influence EFL learners' reading comprehension skill, the online instruction of digital stories does have more significant impact on the learners 'reading comprehension skill than conventional or paper-based instruction. As previously mentioned, teachers can use technology to make media learning easier and more effective through applications and the web, for example, Virtual Writing Tutor. According to Masruddin (2014), his study demonstrated the role of technology media that is needed in the learning process where media is not as a tool but as a part of the educational system and learning process.

Artificial intelligence is one of the advanced technologies used in learning and teaching English. This can help students quickly in the learning process. Advances in AI have resulted in more advanced and faster intelligent writing automatically, thereby offering synchronous feedback to writers (Gayed, 2022). Progress that presents AI makes it easier for students to use Artificial Intelligence (AI) based platform services to sharpen English skills,

especially writing skills. According to Fitria (2021) assumed that the AI method on the platform combines deep learning with several natural language analysis approaches which can make it easier for students to construct language context in writing.

In general, Virtual Writing Tutor can be said to be a website or platform based on Artificial Intelligence that provides facilities for users to analyze the context of written language in the form of grammar and sentence structure. According to Sakkir.et.al. (2020) that technology can be used as a tool to support the learning of various students in developing their skills and performance, especially in EFL classes. Therefore, using a Virtual Writing Tutor to help students in the writing process can be a solution that can suggest people who need to improve their writing skills. Computer technology and internet access can be utilized by teachers and students in many ways as practical and useful tools to achieve the goals of teaching and learning activities (Anggeraini, 2020).

The problem found was the low quality of students' writing skills, after observation, students received assessments or feedback that were not detailed. The absence of detailed and clear assessments makes students have difficulty recognizing and evaluating errors in previous writing. Moreover, Virtual Writing Tutor helps educators to provide learning methods to students using Artificial Intelligence-based technology.

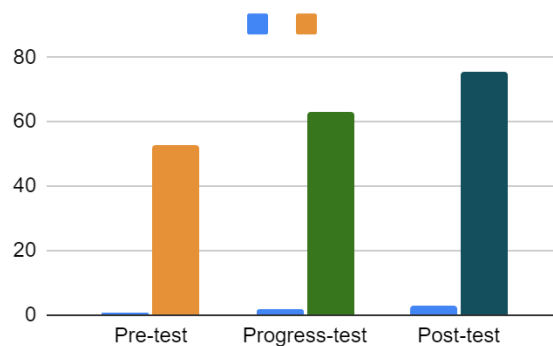
RESEARCH METHOD

This study used Classroom Action Research as a research design which is carried out cyclically in teaching research and is followed by increasing participant data results. The research design empowers teachers to address important issues in classroom activities so that teachers can expand their professional boundaries by looking at their own practice, identifying issues that arise from their teaching experiences, and proposing ways to address them (Syah .M Noor, 2016). Moreover, educators do Classroom Action Research (CAR) to improve student learning outcomes by investigating problems and providing solutions, so that student development can continue to be evaluated. According to Rasuan Zulfikri (2019) conducting Classroom Action Research in the form of caring about the practical teaching and student achievement by carrying out 8 steps to implement it.

The research focuses on one senior high school class from SMA N 4 Yogyakarta. There are 36 students consisting of 12 men and 24 women. Besides, it takes 5 weeks for observing problems and practicing Classroom Action Research (CAR) to focus on Writing Skills. Carrying out fund analysis or data collection through several tests carried out on participation. Consisting of 3 tests which are, pre-test, progress test, and post-test which are carried out with questions in stages. According to Sasongko Febry (2017) conducted Classroom Action Research (CAR) to implement his research on writing skills which are conducted by cyclic activities through pre-test, progress test or cycle 1, and post-test. After getting the data results, 5 participants were interviewed online to provide their perspective on the use of Virtual Writing Tutor in their writing process.

The study carried out data analysis on student score data using a scoring rubric for writing skills adapted by Brown (2007). According to Huda & Piping (2019) using a scoring rubric for student assessment using the same adaptation which has 4 aspects of assessment in the writing test.

FINDING



Graphic 1. *The Graphic of Progress from Pre-test, Progress-test, and Post-test*

The cycle was on August 8 2023 with 1 meeting. The study begins with a discussion of material about legendary narrative texts studied last week. At the first meeting the researcher used learning discussions and also provided visual explanations of the learning

material. In this case, students have not been introduced to the Virtual Writing Tutor platform to access learning assistance. In their assessment questions there are 10 basic questions with Indonesian sentence forms which they have to translate into English according to the grammar and language structure of simple past tenses. In the pre-test, there were errors in changing words to the past, and there were also deficiencies in writing performance because they did not write directional prepositions such as "to". From the pre-test, the score data was analyzed through 4 assessment aspects with 4 assessment criteria for each aspect. . There are 4 assessments in the assessment rubric including; Content, Vocabulary, Grammar, and Mechanisms. Each aspect's score is added up according to existing rules, then multiplied by one hundred ($\times 100$), then divided by 40. From the total participant score data, it is divided by the number of students in the class to produce an average score of 52.9.

After taking the pre-test, students are introduced and taught to use Virtual Writing Tutor as a platform that helps in the writing process. In introducing this platform, participants carried out several experiments on several choices of platform services provided, starting from feedback, checking grammar, checking GPT, and also improving writing. After practicing using the Virtual Writing Tutor, participants are given questions for the Progress-Test. This assessment consists of 20 written questions with 3 different types of questions. The questions given are about material and grammar. After carrying out the Progress Test, student score data is added up according to several assessment aspects based on the assessment rubric. After adding up and dividing by the number of participants, an average value of 63.2 was obtained.

Progress tests are conducted in one meeting, just like any other assessment. However, the form of the test questions is very different, connected to narrative text material, so students are asked to write several paragraphs about narrative text legends which have previously been displayed in video and audio form via the class projector. This test focuses on retelling a legendary story that has been told, in this case participants are asked to train their memory which is written on the answer sheet which must comply with English grammar and sentence structure. In the test, students use a Virtual Writing Tutor to check grammar, punctuation, and so on. In this test the teacher sets a minimum limit for the number of

paragraphs, namely 2, and in each paragraph there are a minimum of 4 sentences written. In terms of grammar, content, mechanisms and vocabulary processing, it is quite good for improving writing skills. This can be proven by adding up the data values and dividing them according to the number of participants to produce an average value of 75.6.

DISCUSSION

After implementing actions from Classroom Action Research for research, it has produced data results that can conclude that there has been an increase in student writing performance. The use of Virtual Writing Tutor encourages student improvement in the student writing process, so this will be a solution for those who have the same problem, especially needing automatic corrective feedback. However, apart from providing automatic feedback, the Virtual Writing Tutor platform also provides services for grammar checking, GPT checking, and improving writing.

The results of the student score analysis data, there are several students who continue to improve in each assessment, but there are also students who improve rapidly and improve consistently. This shows that improvement is also influenced by aspects of individual understanding and focus. However, the existence of the platform also produces new methods for the problem solving system. Besides, there are also things to consider because if students continue to use the platform, it will be easier for students and students will be less lazy to brainstorm learning material exercises.

According to Uzeyir (2020) The aim of the research is to improve the writing skills of students by using Classroom Action Research (CAR) with procedure-based gradual writing training practice. There is another research using an action classroom, Yulianti S. et al (2019) conducting assessment by cycle, only implemented for two cycles. Another research from Darmanah (2020) implemented action classroom with two cycle asesment with kind of poetry. Thus, Kusumawardhani (2020) using flash cards for improving students' writing skills which was implemented through action research for English Young Learners (EYL).

However, there is the same research but with detailed steps used by Rasuan Zulfikri (2019) Each cycle begins with lesson planning, implementing the plan, observing the

implementation, and reflecting or evaluating the process and the result of the implementation. Thus, Linuwih et al (2020) using Classroom Action Research by doing four steps namely planning, action, observation and reflection using Busuu. Kartawijaya (2018) using Classroom Action Research in order to find solutions to any problems found during the teaching and learning process.

The gain data was supported for some reason by the selected participants. After conducting interviews via online interviews, 5 students were able to provide responses regarding the use of Virtual Writing Tutor. The first response said Virtual Writing Tutor can be accessed for free, thus making it easier for users to access, and the existence of detailed feedback really helps improve students' writing performance. Advances in AI have resulted in faster and more sophisticated intelligent writing that can become a tool that offers synchronous feedback to writers (Gayed, 2022). Ganapathy et al (2020) to help students improve their writing skills, teachers provide form-focused feedback on their linguistic errors (grammar and vocabulary) through written corrective feedback. Thus, from the development of AI, offering automation that can have an impact on the teaching and learning process, thereby bringing new learning approach methods to classroom activities (Sumakul et.al, 2021).

Besides, another response stated that convenience could create students' laziness in terms of literacy. Utami (2023) The convenience provided by technology has an impact on low literacy levels, and has the potential to spread the practice of plagiarism. Moreover, another statement also said that platforms based on Artificial Intelligence (AI) provide inconsistent feedback or responses, so this is not good for the continued use of the platform. Hong (2023) Due to the underlying mechanisms of AI, it cannot “understand” the text it produces or its context information.

CONCLUSION

There are several reasons why teachers should use technology: Technology enhances education, computers are intelligence tools, new technologies challenge us to rethink our students' work, provide stimulating opportunities for critical thinking, technology read short stories. Artificial intelligence is one of the advanced technologies used in learning and

teaching English. This can help students quickly in the learning process. Advances in AI have resulted in more advanced and faster intelligent writing automatically, thereby offering synchronous feedback to writers. The problem found was the low quality of students' writing skills, after observation, students received assessments or feedback that were not detailed. The absence of detailed and clear assessments makes students have difficulty recognizing and evaluating errors in previous writing. This study uses Classroom Action Research as a research design which is carried out cyclically in teaching research and is followed by increasing participant data results. The study carried out data analysis on student score data using a scoring rubric for writing skills adapted by Brown. This research found that Virtual Writing Tutor can help improve students' writing performance. They improved significantly in some aspects of writing ability such as the content, vocabulary, grammar, and mechanism. To find out responses from participants, interviews were conducted with a focus on strengths and weaknesses. Then, from the interview results, it was concluded that there were good impacts and bad impacts on the use of AI-based platforms.

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