



DEVELOPING THE STUDENTS' WRITING SKILL BY USING TECHNOLOGY BASED LEARNING MODEL AT 1ST SEMESTER OF TERANG BANGSA UNIVERSITY

Paulus Sainyakit¹

¹Sekolah Tinggi Keguruan dan Ilmu Pendidikan Terang Bangsa

Jl. Serui Mekar, Mimika Baru, Papua Tengah, Indonesia

Corresponding email: sainyakitpaulus@gmail.com

ABSTRACT

Writing can be a tool for extending the students' knowledge. It means that it can be the ways of writing process which are in the form of ink streaks and messages form in the use of social media. In doing so, we can use the technology-based learning in the teaching and learning process, especially for teaching and learning writing. This research is aimed to develop the students' writing skill by using technology-based learning model at 1st semester of Terang Bangsa University. The research design applied in this research is Action Research. The approaches of this research are mixed methods. The Instruments are Observation and Test. The results showed that all of the cycles had increased on Pre-Test and Post-Test. The results of the students' Pre-Test, they got 34% in cycle 1, 49% in cycle 2 and 67% in cycle 3. Then, the results of the students' Post-Test, they got 38% in cycle 1, 54% in cycle 2 and 71% in cycle 3. It was also found out that the students were motivated to learn the material of writing by using Technology-based learning model. Due to the limitations, the researcher suggests that the teacher can use these results for the teaching and learning process especially the use of technology-based learning to improve writing skill. For educational Institution, this research can address learning and teaching in order to improve the teachers' professional attitude. Then, for the further researchers, this research can be a reference to do the research.

Keywords: Technology-Based Learning Model, Writing Skill



This work is licensed under Creative Commons Attribution License 4.0 CC-BY International license
ISSN 2655-9722, DOI: 10.30650/ajte.v7i2.4906

1. INTRODUCTION

1.1. Introduction

In learning English, there are four English skills that are needed to be learnt to master English. They are speaking skill, reading skill, listening skill and writing skill. Those English skills must be developed in order to become proficient in English (Brown & Lee, 2007). These English skills, which are frequently referred to as the English Cores, are thought to be interdependent. It means that in the learning process, they interact and benefit each other. Furthermore, learners may gain comprehensive grasp and capacity to use English language in a variety circumstances (Shanorra et al., 2021). One of the English skills that is fundamental to be mastered is Writing skill.

The definition of writing is a form of language skill that is important and should be mastered. It is because this learning process of writing in the class can be often difficult to experience (Praditha et al., 2022). In addition, the process of writing are creating ideas, sharing experiences, finding out the information and understanding the information that may be studied and shared. The students need to know about writing skill (Siregar, 2022). It is because some lecturers can give the assignments such as writing papers, making content in PowerPoint, summarizing materials, paraphrasing, making journals, etc.

In addition, the students should improve their writing skill as the knowledge can easily be found in newspaper, journals and internet. It is because writing skill enables the students to record, transmit, communicate ideas, concept and others that arise in our mind (Sulistyaningsih, 2017). The students can improve their writing skills as many researchers believe that the more they read, the better their writing skills will be.

Writing can serve as a medium for extending students' knowledge (Kristyanawati et al., 2019). This implies that the writing process can take various forms including written expressions messages shared through social media platforms. Both of them have important roles on writing skill itself by increasing in actions that are learning media. In addition, as we know that the use of modern technology can be widely understood as the innovative applications of methods, materials, tools and others that are related to teaching and learning English (Putri & Oktaviana, 2024). So, we can use the technology in the teaching and learning process, especially for teaching and learning writing.

Furthermore, this research has identified several problems related to learning writing, most of which are experienced by students during the writing process. These issues were discovered through direct observation conducted by the researcher. According to Sumarti and Widodo (2020), difficult and errors in writing may occur from many things such as patterns of sentences, word spelling and inconsistencies of the use of verbs. It is same with Alfaki (2015), he stated that the students' problems on writing skills occurs in various form. Therefore, the researcher did the observation and understood the problem and underlying those problems. Those problems occur in this research namely; First, the lack of the motivation in the teaching and learning process. Second, the score in writing test were low. Third, the effectiveness of the students in learning process. Concerning the problem, it is suggested that the use of technology in teaching and learning of writing. So, the problem based by the students might be solved.

Based on the explanation above, the researcher is interested to improve the students' writing skill by using technology-based learning model at 1st semester of Terang Bangsa University. By applying this learning model which is has good strategy, hopefully it can improve the students' writing skills

1.2. Research questions

Based on the problem presented above, the researcher formulates the research question as “How are the students’ writing skills by using technology-based learning model at 1st semester of Terang Bangsa improved?”.

1.3. Significance of the study

The researcher expects that the results of this research can give the contribution in the field of education theoretically and practically. Theoretically, the researcher expects that these results can give the knowledge in the field of education and also develop the concept to improve the students’ writing skill. Practically, the researcher expects that these results can give contributions to some people. First, to the teacher, these results can be used for evaluation in order to improve the students’ writing skill. Second, for schools, these results can be a basis evaluation to improve school performance and to improve the teachers’ ability to teach. Third, these results can be additional reference to examine the same focus of the research in the future

2. METHOD

2.1. Research Design

The appropriate research design is required to gain the data. The research design applied in this research is Action Research. In action research, the researcher gives the treatments to the students which are the research itself as the subject (Arikunto, 2021).

This research adopts a mixed methods approach, combining both qualitative and quantitative data. These are qualitative and quantitative. The aspects which need to be considered in the mixed methods such as the process of collecting data, weighting the data and theorizing is carried out explicitly and implicitly (Justan et al., 2024). The procedure follows Stringer’s cycle step model based on model reference. This model is presented as follow:

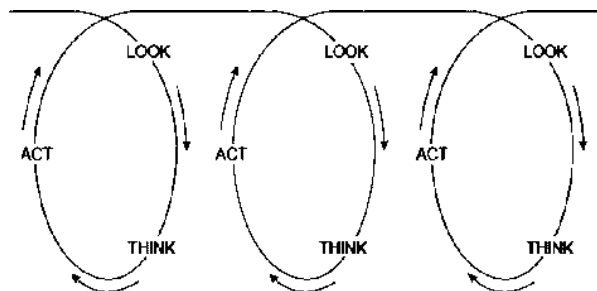


Figure 1. The Representation of Stringer’s Action Research

Based on the model explanation above, it is described as a cyclic process of obtaining data in improving the students’ writing skill. There are three cycles in this research. They are looking, thinking and acting

2.2. Samples/Participants

The research involves English lecturer and 15 students of first semester of Terang Bangsa Univeristy. The researcher got the permission from campus. The lecturer and the students are chosen because the lecturer is English lecturer and the 1st semester have English subject

2.3. Instruments

In this research, the researcher uses test and observation as the instruments of this research. The tests used in this research are pre-test and post-test. The tests will be conducted in every cycle. The researcher uses the formula to analyze the results of the tests. The observation used is structured observation. The researcher observes many aspects during the learning process as follows; first, prepare for teaching writing namely delivery of learning, implement writing materials and the assessment on subject. Second, explain the procedure of technology-based learning model. Third, the researcher explains the process of writing materials such as the researcher's idea in the right submission, the delivery based on the topic's discussion, and the respond of the enthusiastic participants. Forth, learning media in teaching and learning process, they are the use of learning media of writing materials and students' response in media usage. Fifth, the benefits of teaching and learning process by using technology-based learning model such as students' motivation in learning writing, students' ability in writing materials and students' writing ability in using technology-based learning model.

2.4. Data analysis

In data analysis, the data would be analyzed after getting collected by using observation and test as its instruments in this research. For the observation, the researcher used structured observation that was explained above on the instrument. For the test, the researcher assessed the students based on the category that was adapted from Brown (2007) as followed:

No	Aspect	Score
1	Content	30%
2	Organization	20%
3	Grammar	20%
4	Vocabulary	15%
5	Spelling, Punctuation, Capitalization	15%
Total		100%

Table 1. The Rubrik of Writing Score

Then, the researcher would like to calculate the average of students' scores on pre-test and post-test by using the formula from Djiwandono, 2008 as followed:

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

The explanation:

M = the average of the students' scores

$\sum x$ = Total of the students' scores

N = Total of Students' number

After calculating the average of students' scores, the researcher counted the percentage of the students' frequency of the average scores in pre-test and post-test using the formula from Sudijono, 2014 as follows:

$$P = \frac{f \cdot 100\%}{N}$$

The explanation:

P = Percentage

f = Total of Students' score

N = Total of Students' number

Then, the researcher continued to use the guideline in order to know the interpretation and its classification adapted from Sugiyono (2008). It was shown as follow:

No	Category	Score
1	Very Low	0%-20%
2	Low	21%-40%
3	Medium	41%-60%
4	High	61%-80%
5	Very High	81%-100%

Table 2. The Guideline of Writing Score

3. FINDINGS AND DISCUSSION

In this research, the researcher would like to put the explanation of the data in the form of findings and discussion. There were three cycles as Stringer Model used. The writing materials that used in this research were descriptive text. This research was conducted at 14.00 PM until 18.00 PM in the academic year 2024/2025

3.1. Findings

Based on Stringer model used in this research, it could be explained in several explanations such as; in Cycle 1, it consisted of looking in collecting the data, in thinking that was critical reflectivity and acting as implementation of the research. In cycle 2, it consisted of observing the research after cycle 1 was conducted, in thinking as it was reflected after obtaining the data and finding out the act. In cycle 3, in looking as it was assessment and evaluation by the students' performance, in thinking that was followed by the remedial from test and in the acting as it was replanned to improve learning process. It was shown as follow:

The Description of Each Action Research Cycle	
Cycle 1	1. Look (collect the data of the research)
	2. Think (critical reflectivity)
	3. Act (implement the research)
Cycle 2	1. Look
	2. Think (critical reflectivity)
	3. Act

Cycle 3	1. Look
	2. Think (critical reflectivity)
	3. Act (implement the research)
Table 3. Action Research Plan for Each Cycle	

The researcher would like to describe the results of every cycle in this research based on the teaching and learning process. It was described below:

1. Cycle 1

a. Look (collect the data of the research)

In this part, the researcher conducted the observation in classroom activities, condition of class and the students' responses, observed learning outcomes by using instruments, collected the results of observation and analyzed it for the reflection.

b. Think (critical reflectivity)

In this part, the researcher formulated the assessment of writing test, prepared the teaching materials, the learning media, research instruments and the students' pre-test referred to writing materials and evaluated the results of the observation analysis in order to improve the teaching and learning process.

c. Act (implement the research)

in this part, the researcher reviewed the observation sheets such as preparing writing materials, the explanation of technology-based learning, process of teaching writing materials by using media and gave the post-test in order to find out the result of the next implementation of cycle.

2. Cycle 2

a. Look

The researcher created a review for observation in order to improve the teaching writing process by using technology-based learning model on cycle 2, reflected lesson plan of cycle 2 such as materials, students and the classroom and collected the results of reflection as the input materials.

b. Think (critical reflectivity)

The researcher designed the procedures of technology-based learning with two meetings as the improvement of each learning activity in the results of cycle 1, gave pre-test of writing materials to the students and provided teaching materials and learning media in order to advance the topics.

c. Act

The researcher designed the instruments as tests; observation based on the results of reflection and discovered the learning outcomes, gave post-test from writing materials in cycle 2 and documented every activity in learning process.

3. Cycle 3

a. Look

In this part, the researcher reviewed the observation to improve teaching writing process in technology-based learning on cycle 3 and observed the learning outcomes by giving the students pre-test about writing materials.

b. Think (critical reflectivity)

The researcher analyzed the observation for reflection, evaluated observational analysis, improved the learning and teaches the writing process by using technology-based learning, made notes on the results of reflection for materials and designs lesson plan for further teaching and also prepared the teaching materials and media.

c. Acti (implement the research)

In this part, the researcher applied the learning process based on lesson plan by using technology-based learning model, gave post-test in writing materials, documented the teaching and learning process and found out the feedbacks from every activity in each cycle.

Based on the teaching and learning process, the students were given writing materials by using many medias. It was shown that the students were motivated by using technology-based learning model even though there were some difficulties faced by the students. This was found by the researcher during the teaching and learning process.

The tests are given to the students in order to reveal the improvement of writing skill on the technology-based learning. The tests are pre-test and post-test for every cycle. The scores of pre-test tests of every cycle are shown as follow:

NO	NAME	SCORE		
		Cycle 1	Cycle 2	Cycle 3
1	AM	46	56	73
2	DWN	30	45	66
3	DM	35	40	63
4	FSK	30	51	68
5	HA	43	50	72
6	MH	15	35	60
7	MPW	23	47	70
8	OGM	40	58	67
9	PR	35	53	58
10	PK	38	48	66
11	RK	42	58	75
12	VVI	27	40	60
13	WKH	30	52	68
14	YCT	33	46	64
15	YP	41	55	70
AVERAGE		34	49	67

Table 4. The Pre-Test Scores for each cycle

Based on the table 4 above, the researcher finds out that the average of Pre-test in Cycle 1 has the lowest scores. Then, it is followed by Cycle 2 which is medium. Lastly, cycle 3 has the highest scores. In cycle 1, *MH* got very low score that is 15 and *AM* got high score that is 46. In cycle 2, *MH* also got low score that is 35 while *OGM* and *RK* got high scores that are 58. In cycle 3, *PR* got low score that is 58 and *RK* got high score that is 75. The results show that each cycle got an improvement. The average score for cycle 1 got 34 which is categorized as Low, cycle 2 got 49 which is categorized as medium and cycle 3 got 67 which is categorized as High.

After calculating the scores of Pre-tests, the researcher would like to show the results of Post-Test for every cycle. The results for Post-Test will be shown as follow:

NO	NAME	SCORE		
		Cycle 1	Cycle 2	Cycle 3
1	AM	50	60	77
2	DWN	32	48	70
3	DM	38	45	65
4	FSK	35	58	71
5	HA	51	60	75
6	MH	20	46	68
7	MPW	25	50	75
8	OGM	44	60	70
9	PR	40	57	68
10	PK	42	50	69
11	RK	45	60	78
12	VVI	32	49	73
13	WKH	35	55	71
14	YCT	38	53	67
15	YP	47	60	76
AVERAGE		38	54	71

Table 5. The Post-Test Scores for each cycle

Based on the table 5 above, the researcher finds out that the average of Post-test in Cycle 1 has low scores. Then, it is followed by Cycle 2 which is medium. Lastly, cycle 3 has the high scores. In cycle 1, *MH* got very low score that is 20 and *HA* got high score that is 51. In cycle 2, *DM* also got low score that is 45 while *HM*, *HA*, *OGM*, *RK* and *YP* got high scores that are 60. In cycle 3, *DM* got low score that is 65 and *RK* got high score that is 78. The results show that each cycle got an improvement in post-Test. The average score for cycle 1 got 38 which is categorized as Low, cycle 2 got 54 which is categorized as medium and cycle 3 got 71 which is categorized as High.

To show the difference average scores between Pre-Test of cycle 1, cycle 2, cycle 3 and Post-Test of cycle 1, cycle 2 and cycle 3, the researcher would like to show the differences among them. It is shown as follows:

Pre-Test			Post-Test		
Cycle 1	Cycle 2	Cycle 3	Cycle 1	Cycle 2	Cycle 3
34	49	67	38	54	71

Table 6. The Average score of Pre-Test and Post-Test in each cycle.

Furthermore, the researcher would like to count the percentage in the class that passes the medium score (Minimum Score). it is shown as follow:

PRE-TEST	POST-TEST
Pre-Test 1 $P = \frac{4 \cdot 100\%}{15} = 27\%$	Post-Test 1 $P = \frac{6 \cdot 100\%}{15} = 40\%$
Pre-Test 2 $P = \frac{12 \cdot 100\%}{15} = 80\%$	Post-Test 2 $P = \frac{15 \cdot 100\%}{15} = 100\%$

$$\text{Pre-Test 3} \\ P = \frac{11 \cdot 100\%}{15} = 73\%$$

$$\text{Post-Test 3} \\ P = \frac{15 \cdot 100\%}{15} = 100\%$$

Table 7. The Calculation of Medium Score of the students

3.2. Discussion

Based on the findings above, it shows that the results of the students' Pre-Test and Post-Test has an improvement. In the results of the students' Pre-Test, they got 34% in cycle 1, 49% in cycle 2 and 67% in cycle 3. Then, the results of the students' Post-Test, they got 38% in cycle 1, 54% in cycle 2 and 71% in cycle 3. In this research, the students try to focus on the learning, the use of media, delivering the material and reflecting on each cycle so that there are improvements on the students' writing skill. It is same with Sumarti & Widodo (2020), they stated that the writer should pay attention to any process such as in writing, there is a process of discovery, creativity in writing and writing can be an expression in order to communicate to each other. Based on the results of the research, it can be seen that there is an improvement from Pre- Test to Post-Test of Cycle 1, Cycle 2 and Cycle 3. the result of this research is same with Siregar (2023) which the results showed an improvement of every cycle. The pre-test and post-test got an improvement from cycle 1 to other cycles.

In this research, the researcher found out many difficulties in teaching and learning process on writing skill. They are the students didn't understand the material, lack of interest in learning writing, the use of time was not efficient and less in practicing. In addition, Handayani & Handayani (2020) add that there are some things that influence the students in learning to write. It includes time that is limited, online learning, lack of accuracy to present the material, less feedback on the students' project. It is same with Huy (2015) stated that those problems affected the students' competence on writing.

Furthermore, in applying Technology-based learning, the researcher finds out that the students are more motivated in learning writing material. It is same with Fadhilah et al. (2024), she stated that the motivations of the students in learning may be influenced the technology-based learning in the teaching and learning process. In addition, Wirawan et al., (2022) also claimed that the students' learning and competence might be influenced by the technology-based learning model. It means that technology-based learning model can be used for the motivation in order to improve the students' writing skill. Technology based learning can make the teaching and learning process easier.

4. CONCLUSIONS

4.1. Conclusion

This research is conducted on the students in 1st Semester of Primary Teacher Education Program (PGSD) at Terang Bangsa University. Based on the results of this research, the students' writing skills are improved by using technology-based learning model. It is shown by the results of the research. The results have increased in every cycle where every cycle has its Pre-Test and Post-Test. The results of the students' Pre-Test, they got 34% in cycle 1, 49% in cycle 2 and 67% in cycle 3. Then, the results of the students' Post-Test, they got 38% in cycle 1, 54% in cycle 2 and 71% in cycle 3.

In conducting teaching and learning process of writing material, the students are motivated to learn the material of writing. It is seen by the treatments of every cycle conducted by the researcher. They are motivated because the researcher applies technology-based learning model

for teaching the writing material. It can also be seen that the students may follow the learning process of writing skill continuously which is more than one time. So, there would be an

improvement occurs. Based on that, it means that this research is success in improving the students' writing skill by using Technology-Based Learning model

4.2. Suggestions

In teaching and learning process, the researcher would like to give some suggestions for the teachers, educational Institution and further researchers. For the teachers, these results are expected to be useful for the teaching and learning process especially the use of technology-based learning in improving the students' writing skill. The teachers can also use these results as information and knowledge for teaching writing. For educational Institution, this research can address learning and teaching in order to improve the teachers' professional attitude and other educators. Then, for the further researchers, this research is expected to be useful in conducting the same major such as teaching writing, using the technology-based learning and others. It is also can be consideration for further researchers to conduct the research

REFERENCES

- Alfaki, I. M. (2015). University students' English writing problems: Diagnosis and remedy. *International Journal of English Language Teaching*, 3(3), 40–52.
- Arikunto, S. (2021). *Dasar-Dasar Evaluasi Pendidikan Edisi 3*. Bumi Aksara.
- Brown, H. D., & Lee, H. (2007). *Principles Of Language Learning And Teaching: A Course In Second Language Acquisition*. Taylor & Francis.
- Fadhilah, R. Y., Efendi, A., & Pramono, S. (2024). Technology-Based Learning Models And Project-Based Learning Models Work Together To Boost Student Motivation And Abilities. *JIPTEK: Jurnal Ilmiah Pendidikan Teknik Dan Kejuruan*, 17(1), 67–72.
- Handayani, F., & Handayani, N. D. (2020). The Potential Of Online Writing Tools For EFL University Students During The Covid-19 Pandemic. *JEE (Journal Of English Education)*, 6(1), 9.
- Huy, N. T. (2015). Problems affecting learning writing skill of grade 11 at Thong Linh high school. *Asian Journal of Educational Research*, 3(2)
- Justan, R., Aziz, A., & Makassar, U. M. (2024). Penelitian Kombinasi (Mixed Methods). *ULIL ALBAB: Jurnal Ilmiah Multidisiplin*, 3(2), 253–263.
- Kristyanawati, M. D., Suwandi, S., & Rohmadi, M. (2019). Improvement Of Exposition Text Writing Motivation And Skills Through The Application Of The Problem Based Learning Model. *Budapest International Research And Critics In Linguistics And Education (Birle) Journal*, 2(2), 278–287.
- Putri, M. K., & Oktaviana, F. (2024). Increasing The Students' writing Skills Through Technology-Based Learning At Primagraha University. *Lingua*, 20(2), 159–171
- Praditha, K. T., Dambayana, P. E., & Budiarta, L. G. R. (2022). An Analysis Of Student's Skills In Writing Descriptive Text For Tenth Grade In SMA Negeri 1 Banjar. *Jurnal Penelitian Mahasiswa Indonesia*, 2(2), 242–252.
- Shanorra, T. T., Sofyan, R., & Sumbayak, D. M. (2021). A Writing Skill Assessment Of The *Acitya: Journal of Teaching and Education Vol. 07 No. 2 2025*

- Siregar, K. I. (2021). Improving Students' writing Skill On Recount Tex Through Diary Writing At Eighth Grade Of Mts Pondok Pesantren Ulumul Qur'an Medan. *Bright Vision Journal Of Language And Education*, 1(1), 78–91
- Sulistyaningsih, A. (2017). Improving The Students' writing Skill In ExplanationText By Using Guided Discovery Learning Method And Teacher's Corrective Feedback (A Car Of The Eleventh Grade Students Of SMKN 2 Salatiga In The Academic Year Of 2016/2017). IAIN Salatiga.
- Sumarti, S., & Widodo, P. (2020). Writing Errors In Students' Foreign Language Acquisition. *Eralingua: Jurnal Pendidikan Bahasa Asing Dan Sastra*, 4(2), 2457–2579.
- Wirawan, I. M. P., Wulandari, I. G. A. A., & Agustika, G. N. S. (2022). Bahan Ajar Interaktif Berbasis Pendekatan STEAM Pada Muatan IPS Siswa Kelas V SD. *Jurnal Penelitian Dan Pengembangan Pendidikan*, 6(1), 152–161