

THE EFFECTIVENESS OF E-PORTFOLIO ON STUDENTS' WRITING SKILLS

AT SMA NEGERI 21 GOWA

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ABSTRACT

This study aims to analyze the effectiveness of using e-portfolio, especially Google Sites, in improving students' writing skills, focusing on two main aspects: grammar and organization. This research was conducted at SMA Negeri 21 Gowa using a quantitative approach with a pre-experiment design. A total of 35 students from class XI MIPA 1 were selected as research samples through purposive sampling, considering their relevance and availability for the study. To collect data, students were given writing tests before (pre-test) and after (post-test) the application of e-portfolio. The test was designed to evaluate their writing performance in terms of grammatical accuracy and organization. The students developed and uploaded their writing assignments through Google Sites, which allowed for continuous feedback and revision throughout the learning process. The data collected was then analyzed using Paired Sample T-Test in SPSS to determine if there was a statistically significant difference in students' writing performance before and after the treatment. The findings showed significant improvement in both aspects of writing. The average grammar score increased from 47.14 to 80.71, reflecting an increase of 71.21%, while the organization score increased from 49.28 to 82.14, or an increase of 71.11%. Statistical analysis showed a significance value of 0.000 ($p < 0.05$), which confirmed the effectiveness of the e-portfolio. These results suggest that integrating digital tools such as Google Sites into writing instruction can foster better learning outcomes, increase student engagement, and encourage greater autonomy in the writing process.

Keywords: *Technology-Based Learning, E-Portfolio, Writing Skills.*

ABSTRAK

Penelitian ini bertujuan untuk menganalisis efektivitas penggunaan e-portofolio, khususnya Google Sites, dalam meningkatkan kemampuan menulis siswa, dengan fokus pada dua aspek utama: tata bahasa dan organisasi. Penelitian ini dilakukan di SMA Negeri 21 Gowa dengan menggunakan pendekatan kuantitatif dengan desain pra-eksperimen. Sebanyak 35 siswa dari kelas XI MIPA 1 dipilih sebagai sampel penelitian melalui purposive sampling, dengan mempertimbangkan relevansi dan ketersediaan mereka untuk penelitian ini. Untuk mengumpulkan data, siswa diberikan tes menulis sebelum (pre-test) dan setelah (post-test) penerapan e-portofolio. Tes ini dirancang untuk mengevaluasi kinerja penulisan mereka dalam hal akurasi tata bahasa dan organisasi. Para siswa mengembangkan dan mengunggah tugas menulis mereka melalui Google Sites, yang memungkinkan adanya umpan balik dan revisi secara terus menerus selama proses pembelajaran. Data yang terkumpul kemudian dianalisis menggunakan Paired Sample T-Test di SPSS untuk menentukan apakah ada perbedaan yang signifikan secara statistik dalam kinerja menulis siswa sebelum dan sesudah perlakuan. Temuan menunjukkan peningkatan yang signifikan dalam kedua aspek penulisan. Skor tata bahasa rata-rata meningkat dari 47,14 menjadi 80,71, yang mencerminkan peningkatan sebesar 71,21%, sementara skor organisasi meningkat dari 49,28 menjadi 82,14, atau meningkat sebesar 71,11%. Analisis statistik menunjukkan nilai signifikansi sebesar 0,000 ($p < 0,05$), yang menegaskan efektivitas e-portofolio. Hasil ini menunjukkan bahwa mengintegrasikan alat digital seperti Google Sites ke dalam pengajaran menulis dapat mendorong hasil pembelajaran yang lebih baik, meningkatkan keterlibatan siswa, dan mendorong otonomi yang lebih besar dalam proses menulis.

Kata kunci: Pembelajaran Berbasis Teknologi, E-Portfolio, Keterampilan Menulis.

A. Introduction

The integration of technology in education has brought significant changes in learning methods, especially in language acquisition. Moreover, it supports various learning styles, allowing for a more personalized and inclusive approach. One

innovation that stands out is the use of e-portfolio, a digital platform that allows students to collect, organize and reflect on their academic work. Moreover, e-portfolio align with 21st century education goals by equipping students with digital literacy skills that are critical in today's globalized world. In the era of

globalization, digital literacy is an important competency for students so that they can compete in an increasingly digitized world of work. This flexibility makes e-portfolio an adaptive tool to meet individual needs in language learning.

E-portfolio are emerging as a promising solution to address this challenge. E – portfolio is a platform that allows students to collect, record, and present their various works and achievements in digital form. According to Firmansyah et al (2019) E portfolio is a collection of electronic evidence compiled and managed by electronic evidence can include writing, electronic files, images, multimedia, blogs and hyperlinks. According to Aliffudin & Santoso (2023), E-Portfolio is a web application designed as a tool to record activities carried out during the learning process in class, including assignments, projects, organizations, committees, and achievements. By providing a digital space to collect assignments, track progress, and engage in reflective practice, e-

portfolio support continuous learning. Through e-portfolio, students can assess their progress and identify areas for improvement, which encourages critical reflection on their writing and students can collect their written work over time. In addition, e-portfolio allow for timely and personalized feedback from teachers and peers, which is crucial for improving the quality of writing.

Writing is a difficult process that involves putting thoughts, feelings, and ideas into written form while paying close attention to how language is used. According to Graham, S. (2018) Writing is shaped by the characteristics, capacity, and individual differences of the communities in which it takes place, and is developed through participation in writing communities and individual changes in writers' capabilities. Writing skills enable students to express ideas clearly, construct logical arguments, and engage in critical thinking, which are essential for academic achievement and career

readiness. However, mastering writing skills in English as a foreign language presents its own challenges for Indonesian students, such as limited vocabulary, difficulties in grammar, as well as problems in maintaining coherence and organization of writing. These challenges are often exacerbated by traditional teaching methods that lack interactivity and reflection. Tools such as e-portfolio have the potential to bridge this gap, as they provide a platform for continuous practice, personalized feedback, and reflective learning.

However, many students, including students at SMA Negeri 21 Gowa, face challenges in improving their writing skills. These challenges are often caused by a lack of motivation, limited feedback, and minimal opportunities for self-reflection, all of which are crucial for the development of writing skills. At SMA Negeri 21 Gowa, students sometimes experience difficulties in writing tasks that require analytical thinking, coherence, and proper organization of ideas. Which are often based on written

assignments and limited feedback, have proven insufficient to help students develop their writing skills optimally.

Research into the use of e-portfolio in education has shown their positive impact on writing skills. Several studies have proven that e-portfolio enhance students' ability to organize ideas, improve coherence, and revise their work effectively based on the feedback received. E-portfolio also promote self-regulated learning and co-regulated learning in second language writing, with connectivity, visibility, and circulation encouraging socially regulated learning Lam, R. (2022). These findings are in line with the pedagogical benefits of e-portfolio in improving students' writing skills. A study by Warni, S. (2016) showed that online portfolio in an EFL writing class in Indonesia improved students' writing skills, autonomy, and motivation, while requiring teachers to understand their roles and adapt to the e-learning environment.

However, there is still a lack of research that specifically examines the use of e-portfolio in the teaching of writing at SMA Negeri 21 Gowa. This research void highlights the need for further investigation on how e-portfolio can support the development of students' writing skills at SMA Negeri 21 Gowa, taking into account the benefits and challenges that may arise in its implementation. This research is to overcome the limitations of research that discusses the use of e-portfolio in learning writing at SMA Negeri 21 Gowa. .

Based on initial observations at SMA Negeri 21 Gowa, many students still do not know and experience difficulties in writing, especially in organizing ideas, maintaining coherence, and revising their writing effectively. That focus more on written assignments and limited feedback have not fully helped students develop writing skills optimally. With e-portfolio, students can be more active in the learning process through reflection, more personalized feedback, and monitoring their writing progress over time. In addition, the

use of technology in education is growing, so it is important to explore how e-portfolio can be an innovative solution in improving students' writing skills. This research is expected to provide new insights into the use of e-portfolio in language learning as well as practical recommendations for students and teachers in optimizing digital-based learning methods at SMA Negeri 21 Gowa.

B. Research Method

This study used a quantitative research design using a pre-experimental design with a pre-test and post-test approach. The participants of this study were 35 students of class XI MIPA 1 at SMA Negeri 21 Gowa who were purposively selected. Data were collected using descriptive writing tasks that were evaluated based on grammar and organization. SPSS version 22 was used to conduct Paired Sample T-Test to test the significance of improvement.

C. Research Result and Discussion Result

The researcher collected data from the result of teaching writing using test instruments in the pre-test and post-test. The data obtained from the instruments described as follow :

Tabel 1. Students' mean score and improvement

Indicator	Mean		Improvement
	Pre-test	Post-test	
Grammar	47.14	80,71	71.21%
Organization	49.28	82.14	71.11%
Writing skills	46,21	81,14	75.58%

Based on the table above, it shows that there was a significant improvement in students' writing skills after the implementation of e-portfolio, namely Google Sites, in the learning process. The average score for grammar improved from 47.14 in the pre-test to 80,71 in the post-test, with a percentage increase of 71.21%. In the organization aspect, the average score also increased from 49.28 to 82.14, with an increase of 71.11%. Meanwhile, for overall writing skills, the average score increased from 46.21 in the pre-test to 81,14 in the post-test, reflecting an increase of 75.58%.

Table 2. classification and percentage of students' grammar

N	Classifi cation	inter val	Pre - test		Post - test	
			F	%	F	%
1	Excellen t	86- 100	-	-	1 3	37,1 4%
2	Good	71- 85	6	17,1 4%	1 9	54,2 8%
3	Fair	56- 70	-	-	-	-
4	Poor	41- 55	2	57,1 0	3	8,57 %
5	Very poor	0- 40	1 6	25,7 1%	-	-
Total			3 5	100 %	3 5	100 %

The table above displays the classification of students' grammar scores on the pre-test and post-test in the study. The table shows significant changes in students' grammar skills after the treatment was given. In the pre-test, there were no students who reached the Excellent category and

only 6 students (17.14%) were in the Good category. Meanwhile, most students were in the low category, namely Poor as many as 20 students (57.14%) and Very Poor as many as 9 students (25.71%). There were no students in the Fair category.

After the treatment, namely through the use of e-portfolio in learning to write, the post-test results showed a significant increase. The number of students who reached the Excellent category increased to 13 people (37.14%), and those in the Good category became 19 students (54.28%). Meanwhile, the number of students in the Poor category decreased dramatically to only 3 people (8.57%), and there were no more students in the Very Poor or Fair categories. This comparison shows that most students improved in their grammar skills. This indicates that the e-portfolio is effective in helping students improve and enhance the grammatical aspects of their writing.

Table 3 classification and percentage of students' organization

	Pre - test	Post -
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N	Classifica o tion	inte rval	test			
			F	%	F	%
1	Excellent	86- 100	-	-	1	34,2
					2	8%
2	Good	71- 85	7	20%	1	51,4
					8	2%
3	Fair	56- 70	-	-	-	-
4	Poor	41- 55	1	34,2	5	14,2
			2	8%		8%
5	Very poor	0- 40	1	45,7	-	-
			6	1%		
Total			3	100	3	100
			5	%	5	%

Table 3 above shows the classification of students' grammar scores during the pre-test and post-test in this study. The data is classified based on five assessment categories, namely: Excellent, Good, Fair, Poor, and Very Poor. In the pre-test, the results show that most students have low grammar skills. A total of 16 students (45.71%) were in the Very Poor category, and 12 students

(34.28%) were in the Poor category. Only 7 students (20%) were in the Good category, while no students reached the Excellent or Fair categories. This indicates that the students' grammar skills before the treatment were still very weak.

However, after the treatment was given, the post-test results showed significant changes. The number of students in the Excellent category increased dramatically to 12 people (34.28%), and as many as 18 students (51.42%) managed to reach the Good category. The Poor category decreased to only 5 students (14.28%), and there were no more students in the Very Poor or Fair categories. Overall, this table shows a clear improvement in students' grammar skills after being treated through the use of e-portfolio in the writing learning process.

After that The data is analyzed with SPSS using the Paired Sample T-Test to compare the pre-test and post-test scores of students' writing skills before and after using the e-portfolio.

Table 4 Paired Samples Tests of Pre-test and Post- test Results

Category	t	df	Sig. (2-tailed)	Descriptions
Grammar	-11.926	34	0.000	Significance
Organization	-10.303	34	0.000	Significance

Based on the results of the Paired Samples Test in the table above, it can be concluded that there is a significant difference between the pre-test and post-test results in both grammar and organization. For the grammar aspect, the calculated t-value is -11.926 with a degree of freedom (df) of 34, and a significance level (Sig. 2-tailed) of 0.000. Similarly, for the organization aspect, the calculated t-value is -10.303 with df 34, and the significance level is also 0.000.

Since the significance value (0.000) is smaller than the significance level of 0.05 ($p < 0.05$), it can be concluded that the difference between the pre-test and post-test results in both aspects is significant. This means

that the use of e-portfolios such as Google Sites in writing instruction significantly influences the improvement of students' abilities, both in terms of grammar and organization

Discussion

Based on the data that has been found, the researcher found that in making essay writing by using e-portofilio which is specialized in google sites to teach writing, students' writing ability is still limited. It can be seen from the pre-test results that the scores obtained are lower than the post-test results. The average score of the pre-test on the grammar aspect is (47.14) with the post-test result is (80.71) while the pre-test on the organization aspect is (49.28) with the post-test result is (82.14). One of the factors that cause this to happen is because the learning techniques used by teachers are still monotonous by only using conventional learning methods such as using the lecture method and delivering material through power point, so that students are less interested in learning English, especially in learning to write, and assume that English is very difficult to learn.

This was consistent with Devita (2020), The application of conventional learning models cannot improve student learning scores. This is because during the learning process students feel bored with the way the teacher delivers the material which causes students to tend not to focus on listening to the material. Then, the use of this learning model is less interesting and less motivating. In addition, the classroom atmosphere when applying conventional learning models is less lively because students are not very enthusiastic in participating in learning and students actually do other activities during the learning process.

After implementing e-portfolio, particularly Google Sites, there was a significant improvement. Data analysis showed that the use of Google Sites-based e-portfolios in writing instruction had a significant effect on improving students' writing skills, particularly in terms of grammar and organization. In terms of grammar, students' average scores increased from 47.14 on the pre-test to 80.71 on the post-test. This indicates that after the implementation of the e-portfolio, namely Google Sites, students were better able to use

correct and appropriate grammar in their writing. Similarly, in terms of organization, there was an increase in the average score from 49.28 to 82.14, indicating that students made progress in structuring their writing in a more organized, logical, and coherent manner.

The improvement in these two aspects is supported by the results of a statistical test using the Paired Sample T-Test, which shows a significance value of 0.000. Since this value is smaller than the significance threshold of 0.05, it can be concluded that there is a significant difference between the pre-test and post-test results. This means that the difference in scores is not due to chance alone but is a real result of the intervention provided through the use of e-portfolio such as Google Sites. This finding strengthens the evidence that integrating technology into learning, particularly through digital media like Google Sites, can enhance the quality of the learning process and student learning outcomes in English writing skills.

D. Conclusion

The findings of this study clearly show that the integration of Google Sites-based e-portfolios has a

significant and positive impact in improving students' writing skills, especially in the areas of grammar and organization. Using a quantitative pre-experimental design, this study measured students' performance before and after treatment through pre-test and post-test assessments. The grammar aspect increased from 47.14 to 80.71, while the organization aspect increased from 49.28 to 82.14. These improvements were statistically confirmed by the results of the Paired Sample T-Test, which yielded a significance value of 0.000 ($p < 0.05$), indicating that the observed differences were not caused by chance factors.

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