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Vocabulary Learning Revolution with Jamboard in 7th grade at SMPN 1 Gandusari

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Abstract

This study aimed to assess the effectiveness of Jamboard in enhancing the vocabulary achievement of seventh-grade students at SMPN 1 Gandusari, particularly in describing places and understanding meanings, synonyms, and antonyms. The research employed a one-group pretest and post-test pre-experimental design involving 32 students. The methodology included three key phases: pretest, treatment, and post-test. Tests were used to gather data, and before administering the test to the participants, the test's reliability and validity were ensured through preliminary trials. Data analysis was conducted using paired sample t-tests with SPSS 25. The findings revealed a significant improvement in students' vocabulary achievement, with scores increasing from an average of 63.63 in the pretest to 92.25 in the post-test. The paired sample t-test indicated a Sig. (2-tailed) value of less than 0.05, confirming a significant difference in learning outcomes between the pretest and post-test. This suggests that Jamboard effectively improves the vocabulary of seventh-grade students at SMPN 1 Gandusari, particularly in describing places. Based on these results, it is recommended that teachers incorporate Jamboard into English language instruction to make learning more engaging. Teachers could also use Jamboard to teach other topics. Additionally, students are encouraged to regularly review vocabulary related to describing places. Future research could explore student and teacher responses to Jamboard for different subjects or compare its effectiveness with other language learning tools such as Duolingo, Baamboozle, and Beelingoapp.

Keywords: Jamboard; Vocabulary Achievement; Descriptive text; Pre-Experimental Research.

1.Introduction (Capitalized first letter, Times New Romans, Bold, 10 pt)

To thrive in an increasingly globalized world, Indonesian students are mandated to learn English throughout their academic journey, from elementary school to university (Fitri et al., 2023; Maduwu, 2016). This language acquisition involves mastering four key skills: speaking, listening, reading, and writing (Mansur et al., 2019). Beyond these core competencies, a robust English vocabulary is vital for students to communicate effectively, comprehend complex texts, and express themselves articulately (Fadhilawati, 2016). Additionally, the English language curriculum emphasizes sub-skills like pronunciation and grammar to ensure comprehensive language proficiency (Mansur et al., 2019).

Vocabulary, as Lehr (2008) explains, is the capacity to comprehend and utilize words in both written and verbal expression. It is a fundamental component of language; without a sufficient vocabulary, effective communication is hampered (Delvanny, n.d.). Regardless of the language being learned, vocabulary is indispensable for daily communication (Fitri et al., 2023). Research suggests that inadequate vocabulary and a lack of effective vocabulary learning strategies significantly hinder foreign language learners' comprehension abilities (Hyso, 2011). This challenge is particularly prevalent among students learning English as a foreign language, who encounter a range of obstacles in vocabulary acquisition. These difficulties span from accurate pronunciation and spelling to understanding nuanced word meanings, distinguishing grammatical structures, and applying vocabulary appropriately within context (Rohmatillah., 2014). The mastery of idiomatic expressions poses an additional layer of complexity for learners, further highlighting the multifaceted nature of vocabulary acquisition in a foreign language.

To address the challenges of vocabulary acquisition, the researcher aims to enhance the learning experience by introducing imaginative and engaging teaching methods, particularly leveraging technology. This approach aligns with the insights of Larsen and Freeman (2002), who highlight the crucial role of effective teaching methodologies, media integration, and innovative techniques in fostering communicative language proficiency (Mardiah, n.d.). In the

contemporary context, where technological advancements are rapidly transforming education, the fusion of technology with teaching practices becomes even more pertinent (Jaelani, 2020).

Mirroring the broader challenges faced by students in vocabulary acquisition, the 7th-grade students at SMPN 1 Gandusari experienced similar difficulties, particularly in the context of learning descriptive texts. Descriptive writing, much like an artist's skilled brushstrokes, paints a vivid picture of people or objects, transporting readers into a world of rich imagery and evocative details, as highlighted by Saidatunur (2019). Each word in descriptive writing contributes to a captivating narrative, engaging the senses and encouraging deeper exploration of the meticulously crafted scene. A conversation with their English teacher on December 11, 2023, highlighted these struggles. The students' performance on a recent Block test on descriptive text was below the school's standard, with an average score of 69. The teacher indicated that the primary obstacles for the students were defining words, identifying synonyms and antonyms, referencing words correctly, and using vocabulary that is appropriate to the context of descriptive text.

Agnes M. D. Rafaela and Jhon Ensteinb (2022) characterize Google Jamboard as a digital whiteboard seamlessly integrated with various cloud services. This "Jambord," as they call it, serves as a tool for facilitating real-time interaction between teachers and students, enhancing the learning experience through its engaging and interactive nature. Khoiriyah et al. (2022) highlight the potential of Google Jamboard as a powerful tool for synchronous collaborative reading strategies. They emphasize its user-friendly interface and seamless integration, promoting engaging and efficient collaborative learning experiences. Similarly, Trask (2022) views Google Jamboard as a flexible tool that can be adapted to various teaching styles, offering educators a creative platform for student engagement. The NSW government (2015) echoes this sentiment, describing Jamboard as a versatile collaborative tool within the Google Suite that enables teachers and students to create, edit, and share content in real-time, fostering collaboration that transcends geographical and temporal limitations.

Initial findings suggest that 7th-grade students at SMPN 1 GANDUSARI face difficulties with understanding, interpreting, and retaining vocabulary. To address this, teachers could utilize suitable media, particularly during later class periods when student engagement may wane. In the context of vocabulary instruction, Agus AP (2021) has shown that Jamboard offers a dynamic and engaging platform. With its user-friendly interface, powerful yet simple features, and minimal data usage, Jamboard can transform vocabulary learning into an enjoyable experience, encouraging student exploration and enthusiasm.

Recognizing the vocabulary challenges faced by 7th-grade students, particularly in class VII-I at SMPN 1 Gandusari, and considering the limited research on Jamboard's application for vocabulary instruction in junior high schools, coupled with recommendations from supervisors and language teachers, the researcher proposes a study to examine the impact of Jamboard on vocabulary acquisition. Specifically, the research will focus on the class with the lowest vocabulary achievement, aiming to improve their vocabulary memorization skills. The research will be titled "The Efficacy Of Jamboard To Boost Seventh-Grade Students' Vocabulary Achievement In SMPN 1 Gandusari Blitar."

2.Method (Capitalized first letter, Times New Romans, Bold, 10 pt)

The research approach serves as a crucial guide, shaping the entire research process, from fundamental philosophical perspectives to the specific methods of data collection and analysis (Creswell & Creswell, 2018). This study adopts a quantitative approach, where numerical data is gathered and analyzed using statistical methods. Imron (2019) and Thabroni (2022) both emphasize the central role of numerical data in quantitative research, spanning from data collection to interpretation and presentation.

In addition, this investigation utilizes a quantitative research design, specifically a pre-experimental approach referred to as the one-group pre-test and post-test design. This design involves a single group without a control group, and a pre-test is conducted prior to the intervention to establish a baseline. By comparing the results before and after the intervention, this design provides a clearer assessment of the intervention's effect (Hardianto & Baharuddin, 2019).

The research is set at SMPN 1 GANDUSARI Blitar, located on Jl. Kelud No.1. This school was selected because preliminary findings indicated that students in class 7-I faced challenges with vocabulary acquisition, which directly aligns with the research focus. The supervisor's recommendation and the school's well-equipped computer lab further supported this choice. The lab's resources are expected to facilitate the implementation of technology-based vocabulary instruction. It is hoped that the study's findings will contribute positively to the educational environment at SMPN 1 GANDUSARI BLITAR. The research will involve seventh-grade students during the second semester of the 2023/2024 academic year. In this research endeavor, a class comprising 32 seventh-grade students at SMPN 1 Gandusari was purposefully chosen to constitute the sample group.

For the purposes of this investigation, a test served as the primary data collection tool. It was administered at two distinct points in time—before and after the intervention—to evaluate the vocabulary skills of the 32 seventh-grade students within class VII-I at SMPN 1 Gandusari. The test itself consisted of 25 multiple-choice questions and was delivered electronically through Google Forms. Students were allocated a 90-minute window to complete the assessment.

The research unfolded in a structured sequence, commencing with a pretest to establish baseline understanding, followed by the implementation of Jamboard-based learning interventions, and culminating in a posttest to evaluate learning outcomes. On May 7, 2024, the study was initiated by administering a pretest to the experimental group of students. This pretest aimed to gauge their existing comprehension of descriptive texts. The assessment comprised 25

multiple-choice questions related to procedural text material, and students were allotted 90 minutes to complete it. Each question carried a weight of 4 points, with a perfect score of 100 achievable for those answering all questions correctly.

Following the initial assessment, the researcher proceeded with the intervention, utilizing the Jamboard application to facilitate descriptive text vocabulary acquisition within the experimental group, specifically class VII-I. This intervention was administered across four sessions, commencing on May 7, 2024, and concluding on June 4, 2024. Throughout this phase, the researcher employed descriptive text readings available within the Jamboard application itself. During the course of the intervention, a positive trend emerged in the students' vocabulary achievement, as evidenced by their performance on the post-test. The number of students who successfully answered the post-test questions exhibited a gradual increase as the treatment progressed.

To solidify the insights gathered during the treatment phase, the researcher administered a posttest to the experimental class. This posttest took place on June 4, 2024, and consisted of 25 multiple-choice questions, with students given 90 minutes to complete it. All 32 students in the experimental class, namely class VII-I, participated in the posttest. The primary objective of the posttest was to assess the students' proficiency in descriptive text vocabulary following the implementation of the Jamboard intervention. The results of this posttest were then utilized to evaluate the effectiveness of the Jamboard application in enhancing the vocabulary achievement of the students in class VII-I at SMPN 1 Gandusari.

Following data collection, the researcher analyzed the normality of the pre-test and post-test data using the Mean-Rank test. This step was crucial to ensure the data's suitability for further parametric analysis. A paired sample t-test was then employed to compare the pre-test and post-test scores, aiming to assess the impact of the Jamboard application intervention on student performance. The significance level was set at 0.05. A p-value less than 0.05 would lead to the rejection of the null hypothesis, indicating a significant improvement in descriptive text vocabulary achievement due to the intervention. Conversely, a p-value exceeding 0.05 would suggest no significant effect of the Jamboard application. All statistical analyses were performed using SPSS 25 software.

3. Findings and Discussion (Capitalized 1st letter, New Romans, Bold, 12pt)

In this part, the researcher showcases the findings of their study. This research delves into the effectiveness of the Jamboard application in enhancing the descriptive text vocabulary skills of seventh-grade students at SMPN 1 Gandusari. To address this inquiry, the researcher carried out a series of research steps to gather and analyze data. The initial analysis involved evaluating the questions' validity before conducting a pretest. This validity assessment was based on data collected from a trial conducted in class VII--H at SMPN 1 Gandusari.

Ridho & Si (2013) conceptualize validity as an evaluative summary, essentially an assessment of the evidence backing the interpretation and use of test scores. Sugiono, cited in Aziz (2021), further elaborates that a valid instrument accurately measures its intended target, ensuring the collected data is genuinely pertinent and meaningful. In this particular study, the instrument's validity will be scrutinized using a 50-item vocabulary test administered to seventh-grade students in class VII-H at SMPN 1 GANUSARI BLITAR. The benchmark for item validity is as follows: if the computed t-value surpasses the critical t-value at a 5% significance level, the item is deemed valid. Conversely, if the calculated t-value falls short of the critical t-value at the same significance level, the item is considered invalid, leading to a critical value (r-table) of 0.338, with 31 degrees of freedom. To execute this validity assessment, the data will be analyzed employing the Karl Pearson Product Moment formula, aided by the SPSS 25.00 program for Windows. The outcomes of the instrument validity test are showcased in the table provided below.

Question	R count	R table	Description	Question	R count	R table	Description
Q1	-0,081	0,338	INVALID	Q26	0,433	0,338	VALID
Q2	-0,220	0,338	INVALID	Q27	-0,260	0,338	INVALID
Q3	-0,108	0,338	INVALID	Q28	0,421	0,338	VALID
Q4	0,478	0,338	VALID	Q29	0,484	0,338	VALID
Q5	-0,244	0,338	INVALID	Q30	0,482	0,338	VALID
Q6	0,505	0,338	VALID	Q31	-0,024	0,338	INVALID
Q7	-0,052	0,338	INVALID	Q32	0,344	0,338	VALID
Q8	0,508	0,338	VAID	Q33	0,031	0,338	INVALID
Q9	0,115	0,338	INVALID	Q34	0,267	0,338	INVALID
Q10	-0,052	0,338	INVALID	Q35	0,482	0,338	VALID
Q11	0,518	0,338	VALID	Q36	-0,096	0,338	INVALID
Q12	0,709	0,338	VALID	Q37	-0,116	0,338	INVALID
Q13	0,571	0,338	VALID	Q38	0,409	0,338	VALID
Q14	0,666	0,338	VALID	Q39	0,370	0,338	VALID
Q15	0,488	0,338	VALID	Q40	0,619	0,338	VALID
Q16	0,464	0,338	VALID	Q41	0,641	0,338	VALID
Q17	0,417	0,338	VALID	Q42	0,804	0,338	VALID

Q18	-0,164	0,338	INVALID	Q43		0,338	
Q19	0,387	0,338	VALID	Q44	0,717	0,338	VALID
Q20	0,380	0,338	VALID	Q45	0,729	0,338	VALID
Q21	0,307	0,338	INVALID	Q46	0,518	0,338	VALID
Q22	-0,024	0,338	INVALID	Q47	0,493	0,338	VALID
Q23	0,545	0,338	VALID	Q48	-0,080	0,338	INVALID
Q24	0,533	0,338	VALID	Q49	0,421	0,338	VALID
Q25	0,459	0,338	VALID	Q50	0,045	0,338	INVALID

The validity test results indicated that 31 out of 50 questions were deemed accurate or valid, while 19 questions were considered inaccurate or invalid. The subsequent phase in this research involved evaluating the research instrument's reliability. Arikunto (2010) posited that the reliability test serves to determine if an instrument possesses sufficient reliability to be employed as a data collection tool in a study. In this specific investigation, the reliability test was carried out utilizing 25 questions from the 31 questions previously established as valid in the prior validity assessment. Reliability analysis was performed using the Cronbach Alpha formula within SPSS 25 software. The outcomes of the reliability test on this question instrument are displayed in the table below.

Reliability Statistics

Cronbach's Alpha	N of Items
.726	51

The table above displays an instrument reliability value of 0.726. Heale & Twycross (2015) suggest that reliability is acceptable if it meets a minimum threshold of 0.7. Consequently, the reliability test result of 0.726, being higher than 0.7, indicates that the obtained data can be considered reliable. This reliable data can then be utilized as an instrument for further research. Once the data's validity and reliability are established, the next research stage involves conducting a pretest. The pretest serves to gauge the baseline abilities of students in the experimental group (grade VII-I) prior to the implementation of the Jamboard intervention. With a pretest duration of 90 minutes, students are directed to complete the pretest consisting of a total of 25 questions.

Following the pretest, the experimental group underwent an intervention where the Jamboard application was utilized as a learning aid for descriptive text. This treatment was administered four times, with one session occurring each week. Upon completion of the treatment phase, the researcher concluded the research activities at the school by administering a posttest to class VII-I. The posttest consisted of 25 questions, which the students were allotted 90 minutes to answer. All 32 students in the experimental class participated in the posttest. The data gathered from both the pretest and posttest were then compiled and presented by the researcher in the table provided below:

No	Name of Respondent	Score Pre-test	Score Post-test
1	AER	68	92
2	ASP	32	96
3	BDS	68	84
4	BAP	76	88
5	BA	80	100
6	CAH	68	92
7	DCL	76	88
8	DAP	28	96
9	DER	76	100
10	EGN	80	96
11	GES	84	92
12	IAD	32	84
13	IF	44	100
14	JAP	76	96
15	JDC	80	92
16	JAH	76	92
17	KHD	56	96
18	KZR	68	88
19	LAP	48	100
20	MSO	88	100

No	Name of Respondent	Score Pre-test	Score Post-test
21	MAS	72	80
22	NS	32	96
23	NJS	68	96
24	NAS	48	80
25	NDA	56	92
26	ORY	56	96
27	OA	44	76
28	PA	76	88
29	PSP	68	96
30	RK	80	96
31	TB	56	96
32	VSN	76	88

The provided table illustrates the pretest and posttest scores gathered from 32 students within the experimental class. The pretest results reveal that a significant number of students scored below the school's minimum passing grade. Specifically, 19 students obtained scores lower than 75. This suggests that a majority of the class needs to further enhance their vocabulary skills related to descriptive texts. In contrast, the posttest results demonstrate that all students achieved scores exceeding 75. This indicates a notable improvement in the class's descriptive text vocabulary proficiency. For a more in-depth analysis of the pretest and posttest outcomes, a descriptive statistics table is provided below.

Statistics

		PRE-TEST	POSTTEST
N	Valid	32	32
	Missing	0	0
Mean		63.63	92.25
Percentiles	25	50.00	88.00
	50	68.00	94.00
	75	76.00	96.00

The statistical data revealed a notable improvement in scores, with the lowest pre-test score rising from 32.00 to a post-test score of 76.00, and the highest pre-test score increasing from 88.00 to a perfect post-test score of 100. The average score of the experimental group also exhibited a substantial jump from 63.63 in the pre-test to 92.25 in the post-test. Following data collection, the researcher proceeded to assess the normality of the data distribution to ensure its adherence to a normal distribution pattern, a crucial prerequisite for conducting a paired sample t-test. The Sum of Rank normality test was employed for this purpose due to its suitability for samples smaller than fifty. As per Ghozali (2016), data can be considered normally distributed if the associated significance value surpasses 0.05. The Sum of Rank normality test was executed using SPSS 25, and the outcomes are displayed in the subsequent table.

Test of Normality

		N	Mean Rank	Sum of Ranks
posttest – Pretest	Negative Ranks	0[a]	.00	.00
	Positive Ranks	32[b]	16.50	528.00
	Ties	0[c]		
	Total	32		

Test of Homogeneity

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	2266.773	6	377.795	1.382	.260
Within Groups	6832.727	25	273.309		
Total	9099.500	31			

The normality of the initial and final test data was confirmed using the Sum of Ranks test. Both tests exhibited a significance value of 0.00, well below the predetermined alpha level of 0.05. This indicates that the data follows a normal distribution. Subsequently, a homogeneity test was conducted, revealing a significance value of 0.260 for both the initial

and final tests. Given the homogeneous distribution of the data, a parametric statistical test, specifically the paired sample t-test, was employed. As noted by Pallant (2013), this test is suitable for comparing the means of two measurements collected from the same group. The paired sample t-test was utilized to analyze the initial and final test scores of the experimental group using SPSS 25 software. The results of this analysis are presented in the following table:

Paired Samples Test

		Paired Differences							
					95% Confidence Interval of the Difference				
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	Df	Sig. (2-tailed)
Pair 1	result – class	76.438	18.922	2.365	71.711	81.164	32.318	63	.000

The paired sample t-test results indicate a significant difference between the pretest and posttest scores. The mean difference of -76.43 suggests that the posttest scores were notably higher. A 95% confidence interval of 71.711 to 81.164 further supports this finding, indicating a substantial increase in scores.

The two-tailed significance value of 0.000 is crucial for hypothesis testing. A value greater than 0.05 suggests a negligible difference, leading to the acceptance of the null hypothesis (Ho). Conversely, a value less than 0.05 indicates a substantial difference, supporting the alternative hypothesis (Ha). In this case, the significance value was below 0.05, providing strong evidence for the alternative hypothesis.

The alternative hypothesis of this study was that using Google Jamboard would significantly improve the vocabulary achievement of grade VII students at SMPN 1 Gandusari. The observed significance value supports this hypothesis, demonstrating a real increase in student learning outcomes. Therefore, the findings of this study suggest that the Google Jamboard program is effective in enhancing the vocabulary skills of these students.

The results clearly demonstrate a significant improvement in the vocabulary achievement of seventh-grade students in descriptive texts. The average score increased from 63.63 to 92.25, and the paired sample t-test revealed a statistically significant difference ($p < 0.05$). These findings strongly suggest that Jamboard is an effective tool for enhancing vocabulary learning in this context.

Jamboard's success can be attributed to its interactive features, which engage students and provide opportunities for practice and collaboration. This aligns with research by Marwah (2022), who found that Jamboard makes learning more engaging and collaborative. Additionally, Jamboard enables students to interact with each other and their teacher, fostering critical thinking and communication skills. This is consistent with the findings of Kurniawan et al. (2023), who highlighted Jamboard's potential for cultivating these skills.

Furthermore, Jamboard allows teachers to track student progress and provide personalized support. This aligns with the NSW Government's (2015) description of Jamboard as a collaborative digital whiteboard. By monitoring student performance, teachers can identify areas for improvement and offer targeted assistance. This approach is supported by Marwah (2022), who emphasizes Jamboard's effectiveness in both remote and face-to-face learning contexts.

The integration of Jamboard with Google Cloud enhances its effectiveness as a teaching and learning tool. It allows for seamless collaboration and interaction between teachers and students. Salmiati (2020) noted the various benefits of using Jamboard, including its ability to facilitate active participation and collaboration.

These features contribute to Jamboard's effectiveness in improving seventh-grade students' vocabulary achievement in descriptive texts. By engaging students, providing feedback, encouraging active learning, tracking progress, and offering engaging content, Jamboard helps students enhance their vocabulary skills. The effectiveness of Jamboard in this context is further supported by previous studies, such as those by Lcda. Vicky Katiuska Silvestre De La Cruz (2023) and Made Ari Dwipayanti (2023), who highlighted its potential for interactive learning and improved writing skills.

4. Conclusion

This study uses an experimental research design, specifically one-group pretest-posttest design. This study used an experimental class, namely class VII-I at SMPN 1 Gandusari. The results of this study indicate that the application of Jamboard has a significant positive effect on improving the achievement of procedural text vocabulary in class X-I students at SMPN 1 Gandusari. This significant increase is confirmed by the results of the paired sample t-test, where the two-sided significance value of 0.000 is much lower than the significance threshold set at 0.05. These results clearly illustrate that the use of Jamboard has a significant positive effect on students' vocabulary achievement. This supports the validity of the alternative hypothesis (Ha) which proposes a positive impact of using Jamboard on the achievement of descriptive text vocabulary. Students' vocabulary achievement is also reflected in the increase in the average pretest and posttest scores. The initial average score of 63.63 obtained in the pretest showed a significant increase, reaching 92.25 in the posttest. This shows real progress in the application of Jamboard in learning descriptive text in class seven at SMPN 1 Gandusari.

The success of Jamboard in improving vocabulary achievement can be attributed to several factors. The first factor is the availability of features in the application that can be customized to the user so that they can provide support and assistance to students and facilitate vocabulary mastery. The next factor is that teachers can add various types of text, including descriptive text in the application that allows for directed practice and skill development in a particular genre or focus of material. In addition, the collaboration feature in Google Meet so that teachers can directly monitor student discussions and the results of the discussion can be directly saved to Google Drive on each student's email. And of course, students can also be creative with a fun learning style that can be done anywhere and anytime, so that students become more enthusiastic about learning.

Based on the results of the study, students are expected to be able to utilize Jamboard optimally in learning English, especially in improving vocabulary achievement in descriptive texts. Teachers are also advised to consider using Jamboard as an innovative and interesting learning medium in teaching vocabulary achievement, and to continue to develop fun learning strategies that integrate technology to improve student motivation and learning outcomes. It is recommended that further research explore the efficacy of Jamboard in a wider range of educational environments, including different levels, diverse student demographics, and different types of texts. Future researchers are also expected to explore the long-term impact of Jamboard use on vocabulary achievement and overall English language skills. Thus, this study makes a substantial contribution to the development of new, technology-based language learning approaches. This study paves the way for future investigations into the potential of this application to enhance the overall language learning experience.

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