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The Effect of the Graphic Organizer Method on Students' Ability to Write Recount Text at Grade X

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Abstract: This research concerns the students' ability in writing recount text. The problem of the study was: Teachers still used conventional methods in every meeting, causing boredom among the students. Students had less vocabulary, and Students did not master grammar. Students were unable to express their ideas. This research used a nonexperimental research design. The data were collected by using the test. To obtain the data, the grade X of MAS Muhammadiyah 2 Kisaran is selected as the respondent. The research subject was grade X MIPA 1 and X MIPA 2. Each class consists of 30 students. The total number of students was 60 students. The reason for choosing this class was because the writer found some students' problems in writing recount text. After the data were analyzed, it could be concluded that there was an effect of the graphic organizer method on the student's ability to write recount text at grade X of MAS Muhammadiyah 2 Kisaran in the 2021/2022 Academic Year. It was proven that there was a high correlation between using the clustering technique and the student's ability to write recount text $t_{count} > t_{table}$. With the description $t_{count} = 7.49$ while the t_{table} = 2.002 (5%).and their relevance in formal evidence to solve real problems.

Abstrak: Penelitian ini berkaitan dengan kemampuan siswa dalam menulis teks recount. Permasalahan penelitian ini adalah: Guru masih menggunakan metode konvensional dalam setiap pertemuan sehingga menimbulkan kebosanan pada siswa. Siswa memiliki kosa kata yang kurang, siswa tidak menguasai tata bahasa, siswa tidak mampu mengungkapkan ide-idenya. Penelitian ini menggunakan desain penelitian non eksperimen. Data dikumpulkan dengan menggunakan tes. Untuk memperoleh data tersebut dipilih siswa kelas X MAS Muhammadiyah 2 Kisaran sebagai responden. Subyek penelitian adalah siswa kelas X MIPA 1 dan X MIPA 2. Setiap kelas terdiri dari 30 siswa. Jumlah keseluruhan siswa adalah 60 siswa. Alasan memilih kelas ini karena penulis menemukan beberapa masalah siswa dalam menulis teks recount. Setelah data dianalisis, dapat disimpulkan bahwa terdapat pengaruh metode graphic organizer terhadap kemampuan siswa dalam menulis teks recount siswa kelas X MAS Muhammadiyah 2 Rentang Tahun Pelajaran 2021/2022. Terbukti bahwa terdapat korelasi yang tinggi antara penggunaan teknik clustering dengan kemampuan siswa dalam menulis teks recount t_{hitung} > t_{tabel}. Dengan keterangan $t_{hitung} = 7,49$ sedangkan $t_{tabel} = 2,002$ (5%).

A. Introduction

Writing is a productive and expressive activity. Writing skills are not obtained directly but through a lot of regular practice and practice (Laili & Muflihah, 2020). Besides that, writing is a language skill that uses a variety of written languages. Writing is an inseparable part of the learning process experienced by students while studying at school. Writing requires skill because it requires continuous practice (Boykin et al., 2019; Ok & Rao, 2019). Nunan (in Guo et al., 2020) writes that it is a mental activity to create ideas, think about how to express them, and put them in a statement and paragraph that the reader will understand. One of the texts that are close to the student's life is the recount text because it is a text that retells past events in which the place and occurred events flow smoothly based on the sequence of time (Teng, 2019; Olson et al., 2020). The recount is a text about something that has happened in our life or is used to tell past events such as holiday experiences, accidents, activities, etc. Based on the curriculum, the students should understand and create functional text like recount text. They needed to improve their grammar (Evmenova & Regan, 2019). So, it can be a big problem if the teacher does not find a solution to solve the students' problems to improve their writing ability (Saddler et al., 2019; Yamaç et al., 2020). One of the four essential abilities that students must master is writing since it affects how well they learn. Students require this ability to help them communicate their thoughts in writing and become accustomed to various writing assignments. Many students still struggle with producing English texts and paragraphs, despite competency-based curricula demanding them (Hikmah, 2020). This truth is evident from the pupils' poor performance on their daily tests, midterms, and finals. Dealing with the teaching methods that the teachers employ is one of the potential reasons for the issue. Some teachers do not use methods that genuinely inspire and make it easier for students to write successfully. In reality, educators are inclined to employ the traditional method, which involves more teacher-centered than student-centered activities. Teachers consequently do not actively engage pupils in the entire writing process very much.

However, the expectation still needs to be fulfilled. There are some problems occurred while the students write recount text (Harris et al., 2019; Huang, 2020). Many students still need help writing recount text due to low interest in learning English. Teachers still use conventional methods, which affects student interest in learning English. Students have less vocabulary, do not master grammar, and cannot express their ideas in writing a text (Bogaerds-Hazenberg et al., 2021; Van Ockenburg et al., 2019). It needs a creative approach to make writing instruction more effective and entertaining. Related to p, using a visual organizer can help students overcome their writing difficulties, especially when expressing their opinions. A graphic organizer is a tool that uses visual symbols to represent ideas and concepts in order to convey information. The visual aid may take the form of a line, a circle, an arrow, or an image to help the reader visualize the concept being developed or written.

To overcome the students' problems above, a graphic organizer is used. Graphic organizers are teaching aids that have not only one purpose, and their use is very flexible

and endless (Latifah & Rahmawati, 2019; Wissinger et al., 2021). One common trait of graphic organizers is that it shows the regularity and completeness of students' thought processes and strengths and can clearly show students' weaknesses in understanding (Hughes et al., 2019; Kılıçkaya, 2020). A graphic organizer is a visual communication tool that uses visual symbols to express ideas and concepts, to convey meaning (Fan & Chen, 2021; Chung et al., 2021). Studies by Hughes et al (2019) were able to demonstrate that the graphic organizer approach is a cutting-edge technology that can enhance students' language skills. The capacity to write student opinion writings that are perceived as lacking ultimately increased the author's interest in using this strategy. It is intended that by using this strategy, students' writing skills will improve along with their attitude toward writing instruction and Indonesian language classes.

Using a graphic organizer is expected to have a different impact on students' learning process. The learning outcomes obtained by students will also be different in that it is expected to improve students' ability to express their ideas so that they are able to write recount text well (Graham et al., 2020; Accardo et al., 2020).

This study focuses on Implementing the graphic organizer method in writing recount text. Furthermore, the student's ability in writing recount text at grade X of MAS Muhammadiyah 2 Kisaran. Based on the study's formulation, the study, the objective of the study was to find out the effect of graphic organizers on the student's ability to write recount text at grade X of MAS Muhammadiyah 2 Kisaran.

B. Method

This research would use a non-experimental research design. Especially Correlational Research. Non-experimental research is a type of research method that does not have independent variables. In this case, the researcher tries to observe the phenomenon's context and analyze it to obtain information (Clark et al., 2021a). At the same time, correlational research is also called ex post facto or "after the fact" designs. The primary purpose is to describe the relationship between existing variables and determine the relationship between the independent and dependent variables (Clark et al., 2021b). This study was about the effect of the graphic organizer method on students' ability to write recount text at grade X of MAS Muhammadiyah 2 Kisaran in the 2021/2022 Academic Year.

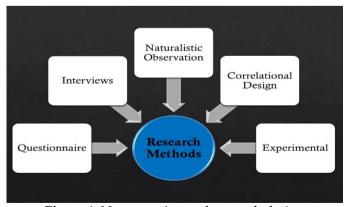


Figure 1. Non-experimental research design

From the sense of the word, the hypothesis is derived from two words, "hypo" means "under" and "thesa" means "truth".

No. Indicator Aspects that are measured Number About The student with fluency understands the 1 1 **Smoothness** problem and writes known things in question. Students could give strategies or methods 2 4 Flexibility for answering questions. The student could give new, unique ideas 3 3 Authenticity capable of producing different combinations with the others. The student could write an idea or 4 2,5 Elaboration answer with steps, detailed solutions, and detail

Table 1. Grid questions on the Creative Thinking Ability Test

So the hypothesis is a tentative answer to the research problems until proven by the data collected (McKeown et al., 2019). The hypothesis in this research is:

- 1. Ha: There is the effect of the graphic organizer method on the student's ability in writing recount text at grade X of MAS Muhammadiyah 2 Kisaran in the 2021/2022 Academic Year.
- 2. Ho: There is no effect of the graphic organizer method on the student's ability to write recount text at grade X of MAS Muhammadiyah 2 Kisaran in the 2021/2022 Academic Year.

C. Result and Discussion Research Finding

Researching findings is evaluation can be accomplished through resting the hypotheses. The means of both the control group and experimental group were different. The mean of the post-test of the experimental group was higher than the control group.

Table 2. Pre-test Validity Trial Results

Question Items	Pre-test validity	Category
1	0,884	Well
2	0.641	Enough
3	0.704	Enough
4	0.704	Enough
5	0.495	Enough

Source: Excel 2010 Data Processing Calculations

Table 3. Post-test Validity Trial Results

Question Items	Post-test Validity	Kategori
1	0,835	High
2	0.797	High
3	0.773	High
4	0.589	Enough
5	0.647	Enough

Source: Excel 2010 Data Processing Calculations

Each test involves making one or more predictions about what should be the case if a hypothesis is true or not accurate. Judging whether the predictions are fulfilled depends on collecting and analyzing observational or experimental data.

Table 4. Control Class

Description test Control Class		
Pre-test Control	Maximum	69
	Minimum	48
	Total Score	1636
Post-test Control	Maximum	73
	Minimum	55
	Total Score	1875

The highest and lowest score of the pre-test on the control group were 69 and 48. The total score was 1636. At the same time, the highest and lowest score of the post-test on the control group were 73 and 55. The total score was 1875. It was proven that the post-test was higher than the pre-test.

The highest and lowest score of the pre-test on the experiment group were 68 and 52. The total score was 1851. At the same time, the highest and lowest score of the post-test on the experiment group were 75 and 52. The total score was 2048. It was proven that the post-test was higher than the pre-test.

Table 5. Experiment Class

Description Test Experiment Class			
Pre-test Experiment	Maximum	68	
	Minimum	52	
	Total Score	1851	
Post-test Experiment	Maximum	75	
	Minimum	52	
	Total Score	2048	

This research concluded that Ha is accepted if $T_{test} > T_{table}$ and H0 is accepted if $T_{test} \le T_{table}$. In this research, the calculation of the scores by using a T_{test} for the degree of freedom

(df) 58 at level significance 0,05 (5%), where the T_{table} is 2.002. The T_{test} is 7.49. If $t_{count} > t_{table}$, then there were significant differences.

Table 6. Hypothesis Test

T _{test}	Ttable	Decision
7.49	2.002	Ha is accepted

Discussion

When composing recount paragraphs, students taught using the Graphic Organizer Method have more vital writing skills than those taught using the standard approach. In reality, the grouping strategy stimulates and gets students mentally ready for writing activities by having them explore and brainstorm possible writing topics. They awaken the schemata associated with writing tools.

Langan (2001), who claims that the Graphic Organizer Method is a method for gathering thoughts and asking to free associations regarding a single concept agreement with relevant facts, supports this. The Graphic Organizer Method is a method that can help students' writing abilities since it allows them to extract material from spider webs or generate clusters, which are then structured into coherent paragraphs Graphic Organizer Method.

The data analysis above shows that the Pre-test scores for the control class were: The highest and lowest scores of the pre-test on the control group were 69 and 48. The total score was 1636. At the same time, the highest and lowest score of the post-test on the control group were 73 and 55. The total score was 1875. It was proven that the post-test was higher than the pre-test. Pre-test and Post-test scores were the highest and lowest score of the pre-test on the control group were 70 and 53. The total score was 1756. The Mean (Mx) was 58.53 (59), Deviation Standard (SDx) was 4.45, and Error Standard (SEx) was 0.83.

In line with the results of research conducted by Hasibuan et al (2022) Based on data analysis, it can be seen that students in class X at SMA Negeri 1 Manduamas score an average of 46 when writing recount texts before and after using the graphic organizer technique, which is categorized as "enough." The average use of the graphic organizer technique in students' learning to write in recount texts is 79 with the "good" category. Additionally, the author's test was found to be smaller than the t_{table} (19.34 > 2.06) based on inferential statistics. Adopting graphic organizer approaches has a considerable impact on students' writing abilities in recounting texts in class X SMA Negeri 1 Manduamas.

Pre-test scores for the experimental class were: The highest and lowest score of the pre-test on the experimental group were 68 and 52. The total score was 1851. At the same time, the highest and lowest score of the post-test on the experimental group were 75 and 52. The total score was 2048. It was proven that the post-test was higher than the pre-test. Pre-test and Post-test scores in the experimental group were the highest, and the lowest score were 68 and 58.5. The total score was 1949.5. The Mean (My) was 64.98 (65), Deviation

Standard (SDy) was 2.21, and Error Standard (SEy) was 0.41. The error standard of X and Y variables (SEM1-M2) was 0.93 (Palermo & Wilson, 2020).

Research conducted by (Wardani, 2017) The difficulties encountered by Undiknas Denpasar management primary students when producing opinion texts served as the basis for this study. The issue is the difficulty in arranging ideas, creating major concepts, selecting the proper diction, and using spelling. In order to address these issues, the right teaching strategies are required. Because it supports students' capacity to write more difficult scientific articles, it is crucial to grasp the skill to create popular scientific papers. The Graphic Organizer Method was employed in this classroom action research project. The findings of this study show a considerable improvement in students' capacity to produce opinion texts. The rise in the average number of students in each cycle serves as proof of this. The typical value for the average score for students in the first cycle is 65; this score then rises once more in the second cycle to 72; and finally, students can earn an average score of 78 in the third cycle.

The result of the reliability of the test (r) is 0.70. Based on the interpretations' table "r", the obtained value of r lies between 0.6 – 0.8. This means that the graphic organizer method affects the students' ability to write recount text at grade X of MAS Muhammadiyah 2 Kisaran in the 2021/2022 Academic Year. Result in Ttest or t_{count} = 7.49, and t_{table} = 2.002. If t_{count} < t_{table} is not significantly different, whereas if t_{count} > t_{table} , then there are significant differences.

D. Conclusion

By the research finding, some conclusions can be staged as the following: Before applying graphic organizer in teaching writing recount text, students get a score: the highest score is 70, the lowest score is 53, and the average is 59. These 22 students got scores of 50–60, and 8 got scores of 61–70. Then after the graphic organizer is applied, we can find that raising scores of the students. The highest score is 69, the lowest score is 58, and the average is 65. Four students scored 50 – 60, and 26 got to score 61 – 70. It shows the effect of the graphic organizer method on students' ability to write recount text at grade X of MAS Muhammadiyah 2 Kisaran.

After finishing the $t_{\rm test}$, we can see that the graphic organizer's effect on the student's ability to write recount text got a result of 0.70. Based on the reliability value, 0,60 – 0,80 is a sufficient correlation. It means there is an effect between the effect of graphic organizer to the student's ability to write recount text. By comparing the amount of "t" obtained in the calculation (to = 7.49) and the amount of "t" listed in the table of t values (t5% = 2.002), it can be seen that too is more significant than tt.

If $t_{count} < t_{table}$ is not significantly different, whereas if $t_{count} > t_{table}$, then there were significant differences. There is a high correlation between using graphic organizers and the student's ability to write recount text $t_{count} > t_{table}$. With the description $t_{count} = 7.49$ while the $t_{table} = 2.002$ (5%).

Based on the findings, the writer would like to offer some suggestions to be considered in teaching to improve the student's ability in writing recount text: In order to increase the student's ability in writing recount text, and the students expected more participation to follow the learning-teaching process. In this case, the teachers hoped to increase the usage of the learning model, learning media, and learning method for the subject material to give more interest. They could increase the student's interest in learning. The education department had to prepare a facility that supports education so the teacher could improve their skill by using learning models, learning media, learning methods, and facilities are given.

References

- Accardo, A. L., Finnegan, E. G., Kuder, S. J., & Bomgardner, E. M. (2020). Writing Interventions for Individuals with Autism Spectrum Disorder: A Research Synthesis. *Journal of Autism and Developmental Disorders*, 50(6), 1988–2006. https://doi.org/10.1007/s10803-019-03955-9.
- Bogaerds-Hazenberg, S. T. M., Evers-Vermeul, J., & Bergh, H. (2021). A Meta-Analysis on the Effects of Text Structure Instruction on Reading Comprehension in the Upper Elementary Grades. *Reading Research Quarterly*, 56(3), 435–462. https://doi.org/10.1002/rrq.311.
- Boykin, A., Evmenova, A. S., Regan, K., & Mastropieri, M. (2019). The Impact of A Computer-Based Graphic Organizer with Embedded Self-Regulated Learning Strategies on the Argumentative Writing of Students in Inclusive Cross-Curricula Settings. *Computers & Education*, 137, 78–90. https://doi.org/10.1016/j.compedu.2019.03.008.
- Chung, H. Q., Chen, V., & Olson, C. B. (2021). The Impact of Self-Assessment, Planning and Goal Setting, and Reflection Before and After Revision on Student Self-Efficacy and Writing Performance. *Reading and Writing*, 34(7), 1885–1913. https://doi.org/10.1007/s11145-021-10186-x.
- Clark, S. K., Lott, K., Larese-Casanova, M., Taggart, A. M., & Judd, E. (2021a). Leveraging Integrated Science and Disciplinary Literacy Instruction to Teach First Graders to Write Like Scientists and to Explore Their Perceptions of Scientists. *Research in Science Education*, 51(4), 1153–1175. https://doi.org/https://doi.org/10.1007/s11165-020-09927-9.
- Clark, S. K., Lott, K., Larese-Casanova, M., Taggart, A. M., & Judd, E. (2021b). Leveraging Integrated Science and Disciplinary Literacy Instruction to Teach First Graders to Write Like Scientists and to Explore Their Perceptions of Scientists. *Research in Science Education*, 51(4), 1153–1175. https://doi.org/10.1007/s11165-020-09927-9.
- Evmenova, A. S., & Regan, K. (2019). Supporting the Writing Process with Technology for Students with Disabilities. *Intervention in School and Clinic*, 55(2), 78–85. https://doi.org/10.1177/1053451219837636.

- Fan, C.-Y., & Chen, G.-D. (2021). A Scaffolding Tool to Assist Learners in Argumentative Writing. Computer Assisted Language Learning, 34(1-2), 159–183. https://doi.org/10.1080/09588221.2019.1660685.
- Graham, S., Kiuhara, S. A., & MacKay, M. (2020). The Effects of Writing on Learning in Science, Social Studies, and Mathematics: A Meta-Analysis. *Review of Educational Research*, 90(2), 179–226. https://doi.org/10.3102/0034654320914744.
- Guo, D., Zhang, S., Wright, K. L., & McTigue, E. M. (2020). Do You Get the Picture? A Meta-Analysis of the Effect of Graphics on Reading Comprehension. *AERA Open, 6*(1), 233285842090169. https://doi.org/10.1177/2332858420901696.
- Harris, K. R., Ray, A., Graham, S., & Houston, J. (2019). Answering the Challenge: SRSD Instruction for Close Reading of Text to Write to Persuade with 4th and 5th Grade Students Experiencing Writing Difficulties. *Reading and Writing*, 32(6), 1459–1482. https://doi.org/10.1007/s11145-018-9910-1.
- Hasibuan, A., Pricilia, G. M., Hasibuan, D., & Tumanggor, A. (2022). The Effect of Using Graphic Organizers Technique on Students' Writing Recount Text Ability. *Jurnal Education and Development*, 10(2), 586-589. https://doi.org/10.37081/ed.v10i2.3761.
- Hikmah, H. (2020). Analysis of Omission and Addition Errors Found in the Students' English Texts. *ELTICS: Journal of English Language Teaching and English Linguistics*, 5(1).
- Huang, Y.-C. (2020). The Effects of Elementary Students' Science Learning in CLIL. *English Language Teaching*, 13(2), 1–15.
- Hughes, M. D., Regan, K. S., & Evmenova, A. (2019). A Computer-Based Graphic Organizer with Embedded Self-Regulated Learning Strategies to Support Student Writing. *Intervention in School and Clinic*, 55(1), 13–22. https://doi.org/10.1177/1053451219833026.
- Kılıçkaya, F. (2020). Learners' Perceptions of Collaborative Digital Graphic Writing Based on Semantic Mapping. *Computer Assisted Language Learning*, 33(1–2), 58–84. https://doi.org/10.1080/09588221.2018.1544912.
- Laili, E. N., & Muflihah, T. (2020). The Effectiveness of Google Classroom in Teaching Writing of Recount Text for Senior High Schools. *Journal of Languages and Language Teaching*, 8(4), 348. https://doi.org/10.33394/jollt.v8i4.2929.
- Langan, C. (2001). Understanding Media in 1805: Audiovisual Hallucination in The Lay of the Last Minstrel. *Studies in Romanticism*, 40(1), 49-70. https://doi.org/10.2307/25601486.
- Latifah, N., & Rahmawati, I. N. (2019). Teaching and Learning Narrative Text Writing

- Through Story Mapping. *English Education: Jurnal Tadris Bahasa Inggris*, 12(1), 78–96. https://doi.org/10.24042/ee-jtbi.v12i1.4428.
- McKeown, D., Brindle, M., Harris, K. R., Sandmel, K., Steinbrecher, T. D., Graham, S., Lane, K. L., & Oakes, W. P. (2019). Teachers' Voices: Perceptions of Effective Professional Development and Classwide Implementation of Self-Regulated Strategy Development in Writing. *American Educational Research Journal*, 56(3), 753–791. https://doi.org/10.3102/0002831218804146.
- Ok, M. W., & Rao, K. (2019). Digital Tools for the Inclusive Classroom: Google Chrome as Assistive and Instructional Technology. *Journal of Special Education Technology*, 34(3), 204–211. https://doi.org/10.1177/0162643419841546.
- Olson, C. B., Woodworth, K., Arshan, N., Black, R., Chung, H. Q., D'Aoust, C., Dewar, T., Friedrich, L., Godfrey, L., Land, R., Matuchniak, T., Scarcella, R., & Stowell, L. (2020). The Pathway to Academic Success: Scaling Up A Text-Based Analytical Writing Intervention for Latinos and English Learners in Secondary School. *Journal of Educational Psychology*, 112(4), 701–717. https://doi.org/10.1037/edu0000387.
- Palermo, C., & Wilson, J. (2020). Implementing Automated Writing Evaluation in Different Instructional Contexts: A Mixed-Methods Study. *Journal of Writing Research*, 12(1), 63-108. https://doi.org/10.17239/jowr-2020.12.01.04.
- Saddler, B., Asaro-Saddler, K., Moeyaert, M., & Cuccio-Slichko, J. (2019). Teaching Summary Writing to Students with Learning Disabilities via Strategy Instruction. *Reading & Writing Quarterly*, 35(6), 572–586. https://doi.org/10.1080/10573569.2019.1600085.
- Teng, (Mark) Feng. (2019). A Comparison of Text Structure and Self-Regulated Strategy Instruction for Elementary School Students' Writing. *English Teaching: Practice & Critique*, 18(3), 281–297. https://doi.org/10.1108/ETPC-07-2018-0070.
- Van Ockenburg, L., Van Weijen, D., & Rijlaarsdam, G. (2019). Learning to Write Synthesis Texts in Secondary Education: A Review of Intervention Studies. *Journal of Writing Research*, 10(3), 401–428. https://doi.org/10.17239/jowr-2019.10.03.01.
- Wardani, D. K. A. (2017). Penerapan Metode Graphic Organizer untuk Meningkatkan Kemampuan Menulis Teks Opini Mahasiswa Program Studi Manajemen di Undiknas Denpasar. *Jurnal Ilmiah Manajemen Dan Bisnis*, 2(1), 111–123.
- Wissinger, D. R., De La Paz, S., & Jackson, C. (2021). The Effects of Historical Reading and Writing Strategy Instruction with Fourth- Through Sixth-Grade Students. *Journal of Educational Psychology*, 113(1), 49–67. https://doi.org/10.1037/edu0000463.
- Yamaç, A., Öztürk, E., & Mutlu, N. (2020). Effect of Digital Writing Instruction with Tablets on Primary School Students' Writing Performance and Writing Knowledge. *Computers & Education*, 157, 103981. https://doi.org/10.1016/j.compedu.2020.103981.