

# DEVELOPMENT OF TEACHING MATERIALS ASSISTED BY GRAPHIC ORGANIZERS TO IMPROVE THE ABILITY TO WRITE EXPLANATORY TEXTS

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## Abstract

This study aims to improve the ability to write explanatory texts and learning motivation of class XI high school students through the development of teaching materials assisted by *graphic organizers*. This research uses R&D research with the research subjects of class XI SMA at SMAN 1 Karawang, SMAN 4 Karawang, and SMAN 5 Karawang. The results obtained are the development of teaching materials assisted by *graphic organizers* with a *Round Robin Brainstorming* learning model that can improve the ability to write explanatory texts. The increase can be seen from Asymp Sig (2-tailed) of  $0.000 < 0.05$ . The ability to write explanatory texts with graphic organizer-assisted teaching materials can be seen from Sig Levene's test for equality of variance of  $0.678 > 0.05$ . This means that the *data variance* between ordinary teaching materials and new teaching materials is homogeneous, so the interpretation of the *independent samples test output* table is guided by the *equal variances assumed for the Sig (2-tailed)* value of  $0.04 < 0.05$ . It can be concluded that there is a significant difference between the average use of ordinary teaching materials and new teaching materials.

**Keywords:** Teaching Materials, Graphic Organizer, Explanatory

## Abstrak

Penelitian ini bertujuan untuk meningkatkan kemampuan menulis teks eksplanasi dan motivasi belajar peserta didik SMA kelas XI melalui pengembangan bahan ajar berbantuan *graphic organizer*. Penelitian ini menggunakan penelitian R&D dengan subjek penelitian kelas XI SMA di SMAN 1 Karawang, SMAN 4 Karawang, dan SMAN 5 Karawang. Adapun hasil yang diperoleh adalah pengembangan bahan ajar berbantuan *graphic organizer* dengan model pembelajaran *Round Robin Brainstorming* dapat meningkatkan kemampuan menulis teks eksplanasi. Peningkatan tersebut terlihat dari Asymp Sig (2-tailed) sebesar  $0,000 < 0,05$ . Kemampuan menulis teks eksplanasi dengan bahan ajar berbantuan *graphic organizer* dapat dilihat dari Sig Levene's test for equality of variance sebesar  $0,678 > 0,05$ . Hal ini berarti bahwa varians data antara bahan ajar biasa dan bahan ajar baru homogen, sehingga penafsiran tabel output *independent samples test* berpedoman pada *equal variances assumed* untuk nilai Sig (2-tailed) yaitu sebesar  $0,04 < 0,05$ . Hal tersebut dapat disimpulkan bahwa terdapat perbedaan yang signifikan antara rerata penggunaan bahan ajar biasa dengan bahan ajar baru.

**Kata Kunci:** Bahan Ajar, Graphic Organizer, Explanatory

## INTRODUCTION

One of the components in learning that plays an important role is teaching materials / teaching materials (Gazali, 2016). Teaching materials are one of the components that must be studied, observed, studied, used as material that students can master, provide guidelines for learning them, determine teaching and learning activities, and improve the quality of learning (Liliawati, 2019).

There are conventional learning options, usually educators dominate more in learning activities and make students feel bored and not motivated to participate in learning. The learning process becomes less exciting and less interesting. Learners are not actively involved in learning activities. The communication process occurs only one way. Learners just sit while listening to what the teacher explains and rarely ask questions or express opinions. As a result, students become bored and unmotivated to participate in learning activities.

Based on the results of researchers' interviews with several teachers, Indonesian that the learning methods used are generally still dominated by the use of lecture methods. This method does not develop students' thinking skills so much, especially in solving a problem. In learning activities teachers often use monotonous methods. Teachers only deliver material through lectures in front of the class, assignments/exercises, and free discussions. This makes it impossible for teachers to develop interesting learning. Therefore, most of the teaching techniques and atmospheres in schools used by teachers seem to hinder more to motivate the potential of the brain, for example, a learner is only prepared as someone who must be willing to listen, willing to accept all information and obey all the teacher's treatment. However, it is a pity that everything learned in that school turned out to be not integrated with daily life. In fact, it is not uncommon for reality in everyday life to contradict lessons at school. This is what makes students unable to activate brain abilities optimally so that students do not have the courage to express opinions, weak reasoning, and depend on others.

### **Development of Graphic Organizer-Assisted Teaching Materials**

According to (Kosasih, 2021) Teaching materials are something used by teachers or students to facilitate the learning process. The form can be a reading book, a workbook (LKPD), or a show. Teaching materials can also be in the form of many things that are seen as being able to improve the knowledge and or experience of students.

Along with this, (Nasruddin, 2022) explained that teaching materials are all materials (both information, tools, and texts) that are systematically arranged, which display the complete figure of the competencies that students will master and use in the learning process with the aim of planning and studying the implementation of learning.

Good teaching materials have the following characteristics:

1. Teaching materials can teach students themselves, meaning that teaching materials have the ability to explain as clearly as all the materials contained in them and are necessary for student learning.
2. Teaching materials are complete, allowing students to no longer need to look for other sources of materials.
3. Teaching materials are flexible, that is, they can be used both for classical, group and independent learning.
4. The design of learning materials is made in a simple format that is not too complex and detailed. The important thing is that teaching materials are able to stimulate the development of all the basic potentials of students.

One type of teaching material that can be used by teachers in learning activities is student worksheets. According to Sri Yanti, one of the authors in the book *Development of Teaching Materials* explained that LKPD is a sheet that contains tasks that must be done by students. Usually it can be in the form of instructions and steps to complete a task (Nasruddin, 2022).

The criteria for a good LKPD (Kosasih, 2021) are as follows:

1. Contains systematic and detailed activities about student activities related to KD or certain indicators.
2. Presenting varied activities, ranging from simple to complex, according to the learning indicators that the teacher has designed before.
3. Contains measurable activities that allow learners to carry out, according to their abilities, interests and talents.
4. Optimizing and can represent diverse ways of learning for learners: visual, auditive, or kinesthetic.
5. Have a conformity of the concept with scientific correctness in each procedure of its activities.
6. Presenting a number of activities on all dimensions of knowledge, skills, and attitudes with due regard to the allocation of available time.
7. Encouraging students to apply the concepts in textbooks, to development in everyday life through a number of exercises, cases, and tasks presented in it.
8. Using language that is easy for learners to understand.
9. Featuring an attractive illustration presentation and a layout that is not boring.

One of the efforts to make LKPD more attractive can be using *graphic organizers*. The use of *graphic organizers* is intended to be a teacher-directed readiness activity that will clarify, stabilize, and organize the previous learner's content knowledge so that new information can become assimilated efficiently (Moore et al., 1984).

The benefits of *graphic organizers* for teachers are that learning is more organized, more control over learning activities, and more sensitive to the demands of learning tasks. Teaching materials that use *graphic organizers* are easier to clarify. *Graphic organizers* prepare teachers to help learners cope with certain content (Moore et al., 1984). Along with that (Rice, 1994) suggests that the use of *graphic organizers* has been suggested to be an effective strategy to assist learners in understanding informational texts. *Graphic organizers* can describe the relationship between important information contained in the text.

### **Ability to Write Explanatory Texts**

According to the Big Dictionary of Indonesian, "writing is giving birth to thoughts or feelings (such as composing, making letters) with writing." Meanwhile, according to Tarigan in (Fitri Daniyati, 2015): Writing is to lower or depict graphic symbols that describe a language understood by a person, so that others can read the emblem if they understand the language and description of the graph. Writing is a part representation of the unity of language expression.

According to Awi in Daningwati (2020), "Writing is not just physical activity, but also self-expression in the control of the heart and brain that demands continuous and systematically patterned exercise. According to Suparno in Daningwati (2020), "Writing can be defined as an activity of conveying messages (communication) using writing materials as a tool or medium. It can be concluded that writing is an activity of expressing ideas about something in the form of writing.

According to Suparno in Daningwati (2020), there are so many benefits that can be learned from writing, including to increase intelligence, develop initiative and creativity, foster courage, and encourage willingness and ability to collect information. According to Kosasih (2017: 178) an explanatory text is a text that explains the relationship of events or the process of something happening in full about the origin, process, or development of a natural, social, or cultural phenomenon. Meanwhile, Barwick (2007, p. 50) also argues that explanatory texts are texts that explain the process and reason for things in the world to

happen. From these two opinions, it can be concluded that explanatory texts are a type of text that explains the process or reason something can happen, it can be a natural, social, or cultural event.

In explanatory texts, many use facts or contain statements that have a causality relationship (causality).

The structure of the explanatory text consists of:

1. Identification of phenomena is identifying something to be explained.
2. Depiction of a series of events, detailing the process of events relevant to the phenomenon is explained as a question of how or why. The patterned details of the question of how to give birth to a description that is arranged chronologically or gradually. In this case the phases of its occurrence are arranged in order of time. Meanwhile, the patterned details of the question of why will give birth to a description that is arranged in causality. In this case the phases of its occurrence are arranged on the basis of a causal relationship.
3. Reviews are comments on assessments about the consequences of previously described events.

Explanatory texts have a function, namely the function of explaining the process, explaining reasons, explaining consequences, and explaining solutions. The function of exposing the process in the explanatory text can give the reader insight into the process of occurrence of an event or phenomenon. The function of explaining the reason is found in the text that explains or explains the reason for the occurrence of something. The reasons in question are the causes of the occurrence of an event or phenomenon. With this function, the explanatory text can provide insight to the reader about the reason or cause of the occurrence of an event or phenomenon. The function of exposing the aftermath is found in texts that describe the consequences of the occurrence of an event or phenomenon. The result in question is the impact of the occurrence of an event or phenomenon. The function of exposing solutions is found in texts that expose solutions or ways of responding to certain events or phenomena.

## METHODS

The research carried out is research and development that aims to develop teaching materials for explanatory texts. The research stage follows the development stages of Borg and Gall. The study subjects used 36 class XI students at SMAN 1 Karawang.

## RESULT AND DISCUSSION

Based on the results of a survey conducted on students at SMAN 1 Karawang, data was obtained that writing explanatory texts is a difficult material to practice. This is because in writing explanatory texts students are required to think scientifically about the cause and effect of an event related to natural or social phenomena. In learning activities, the majority of teachers still use teaching materials provided by the government.

Research conducted by (Amalia, Syambasril, 2015) revealed that in general students have no motivation, lack of enthusiasm and even sleepiness, lessons about writing are activities that are considered too monotonous for most students, lack of learning media that arouses students' passion for learning during the teaching and learning process, especially in the material of writing complex explanatory texts which ultimately affects the value of students.

Researchers design and compile teaching materials assisted by *graphic organizers*. The teaching material in question is in the form of student worksheets that researchers design by adding variations of *graphic organizers* that can help students in the learning process of writing and modified with activity steps using the *RRB* learning model.

Tabel 1. Normality Test

### Tests of Normality

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
PRETES T	.164	36	.015	.952	36	.122
POSTES T	.250	36	.000	.886	36	.001

a. Lilliefors Significance Correction

Based on the table, it can be concluded that the data is abnormally distributed with a Sig value of  $<0.05$ . Therefore, researchers proceed to *the Wilcoxon test*.

Table 2. Wilcoxon Test

<b>Ranks</b>			
	N	Mean Rank	Sum of Ranks
POSTEST Negative - Ranks	0 <sup>a</sup>	.00	.00
PRETEST Positive Ranks	36 <sup>b</sup>	18.50	666.00
Ties	0 <sup>c</sup>		
Total	36		

a. POSTEST < PRETEST

b. POSTEST > PRETEST

c. POSTEST = PRETEST

Based on the results of the *Wilcoxon test*, it can be concluded that none of the learners experienced a decrease in the value of the *posttest*. Learners' grades are more likely to rise in *posttest* results. Similarly, no learner gets the same *posttest* score as *the pretest*.

Tabel 3. Test Statistic

**Test Statistics<sup>b</sup>**

		POSTEST - PRETEST
Z		-5.249 <sup>a</sup>
Asymp. (2-tailed)	Sig.	.000

a. Based on negative ranks.

b. Wilcoxon Signed Ranks Test

Based on the *statistical test* table, it can be seen that the Asymp Sig (2-tailed) is  $0.000 < 0.05$ . This means that it can be concluded that there is an influence on the use of graphic organizer-assisted teaching materials with the *Round Robin Brainstorming*

learning model to improve the ability to write explanatory texts. Based on these data, researchers can conclude that the development of *graphic organizer-assisted* teaching materials with a *Round Robin Brainstorming* learning model can improve the ability to write explanatory texts for class XI high school students in Karawang. The increase can be seen in the acquisition of *pretest* and *posttest scores*.

This research is based on the author's observation of the ability to write explanatory texts of students who are not good. This is in line with the results of research (Saleh, 2016) which states that (1) students do not identify ideas and passions so that the ability to write student explanatory texts is low, (2) students have difficulty in pouring their ideas into a complete form of writing, (3) students are not used to telling experiences or events through text writing to lack of structure (4) lack of students' ability to live on topics (5) lack of ability to develop imagination (6) teachers Difficulties in generating student interest in learning (7) Teachers have difficulty determining the right method or way to deliver the material. Learners find it difficult when it comes to identifying things that are causal of an event regarding natural and social phenomena. The results of student identification are too shallow in exploring a natural or social phenomenon when done independently. Learners also feel too abstract in collecting information related to the theme of the explanatory text.

Based on McKnight's opinion in (Kurniaman & Zufriady, 2019) that *Graphic organizers have proven to be powerful teaching and learning tools that can help students grasp new concepts and save valuable time for teachers. they provide a strong visual picture for students and support their ability to learn facts, information, and new terms.* This explains that *graphic organizers* have proven to be powerful teaching and learning tools that can help students understand new concepts and save valuable time for Teachers. They provide a strong visual picture for students and support their ability to learn new facts, information, and terms. Therefore, researchers are trying to develop a teaching material that helps students to map information according to the theme of explanatory texts so that learning is more concrete and easy to understand by students, namely by using *graphic organizers*.

Researchers are also trying to combine with one of the active learning models, namely *Round Robin Brainstorming*. This learning model is perfect for students in processing and discussing an opinion on a theme in turn so that all students are actively

involved in pouring out their opinions. Teaching materials that researchers have developed, validated first by experts and users and then revised when getting input from a team of experts. Furthermore, teaching materials are tested on a limited basis, extensive trials and ended with product trials.

Both in limited trials and up to product trials, results were obtained that there were differences in student learning outcomes using *graphic organizer-assisted* teaching materials with the *Round Robin Brainstorming* learning model.

## CONCLUSION

The use of teaching materials that researchers develop, namely teaching materials assisted by *graphic organizers* with the *Round Robin Brainstorming* learning model, has been tested by researchers, ranging from limited trials, extensive trials, and finally product trials. Both in limited trials and in product trials, researchers found that there was an influence between the use of graphic organizer-assisted teaching materials on the ability to write explanatory texts for students. With a *graphic organizer*, it helps students to map information according to their needs.

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