

**AN ANALYSIS OF USING THE GRAPHIC ORGANIZERS ON
STUDENTS' READING COMPREHENSION
AT GRADE XI SMA 2 SUNGAI LALA**

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ABSTRACT

Reading comprehension is one of the fundamental skills that students need to master in order to succeed academically. However, many students at Grade XI SMA 2 Sungai Lala face significant difficulties in understanding English reading texts. Graphic organizers are visual tools that have been widely recognized as effective instructional strategies to enhance reading comprehension. This study aimed to analyze the use of graphic organizers on students' reading comprehension at Grade XI SMA 2 Sungai Lala. This research employed a qualitative method with a descriptive approach. The participants of this study were 30 students of Grade XI and one English teacher. Data were collected through classroom observation, in-depth interviews, and document analysis. The data were analyzed using Miles and Huberman's interactive model, which includes data reduction, data display, and conclusion drawing. The findings revealed that the use of graphic organizers significantly helped students in identifying main ideas, understanding text structure, and making connections between concepts in reading texts. The teacher applied several types of graphic organizers including story maps, Venn diagrams, concept maps, and KWL charts. Students demonstrated improved engagement and comprehension when graphic organizers were employed during the reading process. It was also found that graphic organizers facilitated students in organizing and retaining information more effectively. This study concludes that graphic organizers are beneficial tools in improving students' reading comprehension and it is recommended that teachers incorporate them consistently into their instructional practices.

Keywords: *Graphic organizers, reading comprehension, SMA students, visual learning tools*

INTRODUCTION

Reading comprehension is one of the most essential skills in language learning. In the context of English as a Foreign Language (EFL) learning in Indonesia, reading comprehension plays a crucial role in academic achievement. According to Grabe (2009), reading comprehension involves the active

construction of meaning from a text by integrating prior knowledge with new information. Despite its importance, many Indonesian students continue to struggle with English reading comprehension, particularly at the secondary school level.

The problem of low reading comprehension among senior high school students in Indonesia has been documented extensively in educational research. Various factors contribute to this challenge, including limited vocabulary, unfamiliarity with text structures, and inadequate use of reading strategies. In the specific context of SMA 2 Sungai Lala, preliminary observations and discussions with the English teacher revealed that Grade XI students frequently faced difficulties in understanding the main ideas and supporting details of reading texts, especially expository and narrative texts.

To address this challenge, educators have increasingly turned to graphic organizers as pedagogical tools. Graphic organizers are visual representations that help learners organize and structure information from texts. According to Stull and Mayer (2007), graphic organizers can reduce cognitive load by providing a structured visual framework that helps learners process and retain information more efficiently. Bromley, Irwin-DeVitis, and Modlo (1995) further emphasized that graphic organizers are flexible tools that can be adapted to various types of reading materials and learning objectives.

Previous studies have demonstrated the effectiveness of graphic organizers in enhancing reading comprehension among EFL students. For instance, Jiang and Grabe (2007) found that graphic organizers significantly improved students' ability to identify text structure and recall information. Similarly, Baxendell (2003) reported that consistent use of graphic organizers helped students with diverse learning needs to better understand complex texts. Despite these promising findings, limited research has been conducted on the specific application of graphic organizers in the context of senior high schools in rural areas of Riau Province, Indonesia.

This study therefore aims to analyze the use of graphic organizers on students' reading comprehension at Grade XI SMA 2 Sungai Lala. By employing

a qualitative approach, the study seeks to provide an in-depth understanding of how graphic organizers are implemented in the classroom, the types used by the teacher, and the impact on students' reading comprehension. The findings of this study are expected to contribute valuable insights for English teachers, curriculum developers, and education policymakers, particularly in the context of rural secondary schools in Indonesia.

LITERATURE REVIEW

The Concept of Reading Comprehension

Reading comprehension is defined as the process of constructing meaning from written text. According to Snow (2002), reading comprehension involves three elements: the reader, the text, and the activity. The reader brings prior knowledge, language ability, and cognitive skills to the reading task. The text provides information in various forms, and the activity refers to the purpose and consequences of reading. Effective reading comprehension requires the integration of all three elements.

In the EFL context, reading comprehension is even more complex because learners must process texts in a language other than their mother tongue. Alderson (2000) noted that EFL readers face dual challenges: they must simultaneously decode the language system and construct meaning from the text. This dual burden often results in comprehension difficulties, especially for learners with limited vocabulary and grammatical knowledge. Nation (2001) emphasized the importance of vocabulary knowledge in reading comprehension, arguing that learners need to know at least 95% of the words in a text to achieve adequate comprehension.

Several theories underpin the understanding of reading comprehension. The schema theory, proposed by Bartlett (1932) and later developed by Rumelhart (1980), suggests that readers use prior knowledge structures (schemata) to interpret and make sense of new information. According to this theory, comprehension occurs when readers successfully activate relevant schemata and connect them with the information presented in the text. This theoretical

perspective supports the use of graphic organizers, as they help students activate and organize their prior knowledge before and during reading.

Graphic Organizers in EFL Learning

Graphic organizers are visual tools that represent relationships between concepts, ideas, and information in a visual format. They include a variety of formats such as concept maps, story maps, KWL charts, Venn diagrams, cause-and-effect diagrams, and T-charts. According to Marzano, Pickering, and Pollock (2001), graphic organizers are among the most effective instructional strategies for improving student achievement, particularly in reading and writing.

The theoretical foundation of graphic organizers is rooted in cognitive load theory (Sweller, 1988) and dual coding theory (Paivio, 1986). Cognitive load theory posits that learners have a limited working memory capacity, and graphic organizers help reduce unnecessary cognitive load by organizing information visually. Dual coding theory suggests that information processed through both verbal and visual channels is more likely to be retained and recalled. Graphic organizers effectively exploit both channels, thereby enhancing learning outcomes.

Research on the effectiveness of graphic organizers in reading comprehension has consistently demonstrated positive results. Kim, Vaughn, Wanzek, and Wei (2004) conducted a meta-analysis of 21 studies and found that graphic organizers had a moderate to large effect on reading comprehension for students with and without learning disabilities. Dexter and Hughes (2011) also found that graphic organizers were effective in helping students identify main ideas and supporting details in expository texts. These findings suggest that graphic organizers are versatile tools that can benefit learners with diverse learning needs and abilities.

In the Indonesian EFL context, several studies have explored the use of graphic organizers in language learning. Setiawati, Yeni, and Purwanti (2020) reported that the use of graphic organizers improved students' engagement and comprehension of report texts at the senior high school level. Rahayu and Kusumawati (2018) similarly found that KWL charts were effective in improving

students' reading comprehension of narrative texts. These studies provide a foundation for the current investigation into the use of graphic organizers at SMA 2 Sungai Lala.

Types of Graphic Organizers

Several types of graphic organizers are commonly used in reading instruction. Story maps are visual representations of the narrative elements of a story, including characters, setting, problem, events, and resolution. According to Davis and McPherson (1989), story maps help students identify and understand the structural elements of narrative texts, thereby facilitating comprehension. KWL charts (Know, Want to know, Learned) are pre-reading and post-reading tools that activate prior knowledge and help students set reading purposes. Ogle (1986) developed the KWL chart as a strategy to engage students actively in the reading process.

Venn diagrams are used to compare and contrast two or more concepts or texts. They consist of overlapping circles where similarities are placed in the overlapping section and differences in the outer sections. Concept maps are hierarchical visual representations of relationships between concepts. They are particularly useful for organizing information from expository texts and helping students understand complex relationships between ideas (Novak & Gowin, 1984). Cause-and-effect diagrams help students identify causal relationships in texts, which is especially useful for analytical and expository texts.

RESEARCH METHOD

This study employed a qualitative research design with a descriptive approach. According to Creswell (2014), qualitative research is appropriate when the researcher seeks to understand and interpret the meaning of social phenomena in their natural context. The descriptive approach was chosen because the study aimed to describe and analyze the use of graphic organizers in the classroom as it naturally occurred, without manipulation or intervention.

The study was conducted at SMA 2 Sungai Lala, a state senior high school located in Sungai Lala District, Indragiri Hulu Regency, Riau Province, Indonesia.

The school was selected because preliminary observations indicated that the English teacher was using graphic organizers as part of regular instruction, making it an appropriate site for investigating the research problem. The participants of this study consisted of 30 students of Grade XI and one English teacher. The students were between 16 and 17 years old. Purposive sampling was employed to select participants who were most likely to provide relevant and information-rich data (Patton, 2002).

Data were collected through three methods: classroom observation, in-depth interviews, and document analysis. Classroom observation was conducted over eight meetings to record how the teacher implemented graphic organizers in reading instruction. An observation checklist and field notes were used to document classroom activities, teacher-student interactions, and student responses. In-depth interviews were conducted with the English teacher and six selected students (three high-achieving and three low-achieving students) to gain deeper insights into their experiences and perceptions of using graphic organizers.

Document analysis was employed to examine students' completed graphic organizers, reading worksheets, and test results to assess the impact of graphic organizer use on reading comprehension. According to Bowen (2009), document analysis is a systematic procedure for reviewing and evaluating documents to elicit meaning and understanding. The triangulation of data from observation, interviews, and documents enhanced the credibility and trustworthiness of the findings (Lincoln & Guba, 1985).

Data analysis followed the interactive model proposed by Miles, Huberman, and Saldaña (2014), which consists of three concurrent activities: data condensation (reduction), data display, and conclusion drawing and verification. Data condensation involved selecting, focusing, simplifying, and transforming the raw data from field notes, interview transcripts, and documents. Data display involved organizing the condensed data into matrices, charts, and narrative accounts to facilitate analysis. Conclusion drawing involved interpreting the displayed data and making meaning from the patterns and themes that emerged.

FINDINGS AND DISCUSSION

Types of Graphic Organizers Used by the Teacher

The findings of this study revealed that the English teacher at Grade XI SMA 2 Sungai Lala employed four types of graphic organizers in reading instruction: story maps, KWL charts, Venn diagrams, and concept maps. The teacher explained during the interview that she selected different types of graphic organizers depending on the genre and structure of the reading text. Story maps were used for narrative texts, while KWL charts were used as pre-reading tools for all types of texts. Venn diagrams were employed for comparative texts, and concept maps were used for expository texts with complex conceptual content.

Classroom observations confirmed that the teacher introduced graphic organizers at different stages of the reading lesson. During the pre-reading stage, the teacher used KWL charts to activate students' prior knowledge and set reading purposes. During the while-reading stage, students completed story maps or concept maps as they read the text. During the post-reading stage, the teacher used Venn diagrams to facilitate comparison and discussion. This systematic application of graphic organizers at multiple stages of the reading lesson is consistent with the recommendations of Fountas and Pinnell (2001), who emphasized the importance of using reading strategies before, during, and after reading.

Table 1: Types of Graphic Organizers and Their Application

Type of Graphic Organizer	Text Genre	Stage of Reading
Story Map	Narrative Text	While-reading & Post-reading
KWL Chart	All Text Types	Pre-reading & Post-reading
Venn Diagram	Comparative / Analytical Text	Post-reading
Concept Map	Expository Text	While-reading & Post-reading

Impact on Students' Reading Comprehension

The analysis of students' completed graphic organizers and reading test results indicated a positive impact on reading comprehension. Students who consistently used graphic organizers demonstrated improved ability to identify

main ideas and supporting details, understand text structure, make inferences, and connect information across different parts of the text. These findings are consistent with those of Kim et al. (2004) and Jiang and Grabe (2007), who also found significant improvements in reading comprehension when graphic organizers were systematically employed in reading instruction.

Interviews with students revealed that they perceived graphic organizers as helpful tools that made reading tasks more manageable. One student commented that the story map helped her understand the sequence of events in the narrative text more clearly. Another student noted that the KWL chart helped him focus on the key information he needed to find while reading. These perceptions align with the cognitive load theory (Sweller, 1988), which suggests that visual representations reduce the mental effort required to process complex information.

High-achieving students reported that graphic organizers helped them organize and synthesize information more efficiently, allowing them to engage in higher-order thinking tasks such as analysis and evaluation. Low-achieving students, on the other hand, reported that graphic organizers provided a scaffold that helped them approach reading tasks with greater confidence. This finding is consistent with Vygotsky's (1978) zone of proximal development theory, which emphasizes the role of scaffolding in supporting learners to achieve tasks they cannot accomplish independently.

Challenges in Implementing Graphic Organizers

Despite the positive impacts, the study also identified several challenges in implementing graphic organizers at SMA 2 Sungai Lala. First, time constraints were identified as a significant challenge. The teacher reported that completing graphic organizers during reading lessons often required additional time that was not always available within the standard class period. This finding corroborates the observation by Baxendell (2003), who noted that the effective implementation of graphic organizers requires careful planning and adequate time allocation.

Second, some students, particularly low-achieving students, initially struggled with the concept of graphic organizers and required explicit instruction and modeling before they could use them effectively. The teacher addressed this

challenge by providing step-by-step instructions and worked examples at the beginning of each new type of graphic organizer. This finding highlights the importance of teacher preparation and pedagogical knowledge in the successful implementation of graphic organizers in EFL classrooms.

Third, the study found that the availability of graphic organizer templates was limited, as the school had limited access to printing resources. The teacher addressed this challenge by drawing graphic organizer templates on the whiteboard and having students copy them in their notebooks. While this was a practical solution, it further reduced the time available for reading and discussion. These challenges underscore the need for educational policymakers and school administrators to provide adequate resources and support for teachers who wish to implement innovative instructional strategies.

CONCLUSION

This study has analyzed the use of graphic organizers on students' reading comprehension at Grade XI SMA 2 Sungai Lala. The findings indicate that the teacher employed four types of graphic organizers—story maps, KWL charts, Venn diagrams, and concept maps—systematically at different stages of the reading lesson. The use of these graphic organizers had a positive impact on students' reading comprehension, particularly in terms of identifying main ideas, understanding text structure, and organizing information. Students' perceptions of graphic organizers were generally positive, with both high-achieving and low-achieving students reporting that the tools helped them engage more effectively with reading texts.

However, the study also identified challenges related to time constraints, students' initial unfamiliarity with graphic organizers, and limited availability of resources. These challenges suggest that the successful implementation of graphic organizers requires adequate planning, explicit instruction, and institutional support. Based on the findings, it is recommended that English teachers at the senior high school level incorporate graphic organizers consistently into their reading instruction, ensuring that students receive explicit instruction on how to

use different types of graphic organizers for different text genres. Future research could investigate the comparative effectiveness of different types of graphic organizers on reading comprehension across different text genres and learner proficiency levels.

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