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The Effect of Skimming and Scanning Techniques on Coastal Students' Reading Comprehension

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Abstract

Junior high school students still experience significant difficulties in reading comprehension, particularly when dealing with narrative texts that require the ability to distinguish between main ideas and supporting details. This study aimed to investigate the effect of skimming and scanning strategies on the reading comprehension of eighth-grade students at SMPN 14 Tanjungpinang, Riau Islands, Indonesia. Employing a quantitative approach, the study used a pre-experimental one-group pre-test and post-test design involving 24 students. The research instrument was a reading comprehension test consisting of ten essay questions, which was administered before and after the treatment across four instructional sessions. The results revealed a significant improvement in students' reading comprehension following the implementation of skimming and scanning strategies. These strategies effectively assisted students in identifying main ideas and specific information in narrative texts, leading to improved overall comprehension. Therefore, skimming and scanning can be considered effective techniques for enhancing students' reading comprehension and English literacy.

Keywords: *Reading Comprehension, Skimming Technique, Scanning Technique, Narrative Text, Coastal Students.*

Introduction

Reading is a crucial skill for English language learners, as it plays a vital role in acquiring information and knowledge (Hermida, 2023; Nisa et al., 2020). It is an essential activity in daily life, particularly for accessing textbooks, journals, and other publications written in English (Fhonna & Ismail, 2022). According to Subroto et al. (2021), reading allows a person to get information and expertise about a certain subject and may also help them to find out what is happening in various parts of the entire world. However, many junior high school students have difficulty with reading comprehension, particularly when dealing with narrative materials, as they often struggle to recognize main ideas and extract essential information, which limits their overall understanding (Rusmiati et al., 2022; Wandira et al., 2023). In line with Inie et al. (2021) and Hermida (2025), reading comprehension is a key measure of academic reading success. The Merdeka Curriculum

promotes literacy development; therefore, good reading practices are critical for increasing student learning results.

To identify barriers in the English language learning process among eighth-grade students at a public junior high school, SMPN 14 Tanjungpinang, the authors conducted preliminary observations. The school is located in a remote area in Riau Islands, Indonesia. During the initial observations, it was found that students experienced difficulties in learning English at school. One particular issue drew the authors' attention during the investigation. When students were given a reading test in the form of a narrative text, many of them struggled to answer the questions. This difficulty was reflected in the test results, where several students obtained low scores. The observations indicated that eighth-grade students at SMPN 14 Tanjungpinang had limited reading comprehension skills. Furthermore, when asked about the challenges they faced during the test, the students reported difficulty in extracting information from long texts and a limited English vocabulary.

Based on the facts presented above, teachers should select appropriate reading strategies to ensure the effectiveness of the teaching and learning process. English teachers, in particular, need to employ instructional techniques that align with students' proficiency levels and learning needs. There are several approaches of teaching reading, including skimming and scanning techniques. According to Famelia et al. (2022), skimming is a reading strategy that allows students to swiftly uncover broad information as well as the primary concept. This is consistent with Yusuf et al. (2017) perspective, which states that skimming helps readers to identify the most significant facts and major concepts without reading every word. Meanwhile, scanning is as a way for locating particular questions in the final assignment (Asmawati, 2015). This is critical for students who need specialized information to discover solutions to assignments or tests in order to save time answering questions. Previous studies found that these strategies improved students' reading comprehension (Mambua et al., 2020; Ulmi et al., 2015; Wandira et al., 2023). Skimming and scanning are efficient methods for helping students discover major concepts and particular details, hence enhancing comprehension and reading speed (Li et al., 2022). In contrast, intense reading focuses on deep text analysis and vocabulary development, but it is typically time-consuming and unappealing to young learners (Grabe & Stoller, 2020). Meanwhile, intensive reading necessitates a significant amount of free time for students to study a variety of materials freely, and many students complain that additional academic obligations and class schedules leave them with insufficient time (Taye & Teshome, 2025). Therefore, this study aims to investigate the effects of scanning and skimming strategies on eighth-grade students' understanding of narrative texts at SMPN 14 Tanjungpinang Riau Islands, Indonesia.

Literature Review

Reading Comprehension

Reading comprehension is regarded as one of the most important abilities in English language acquisition since it allows pupils to grasp, analyze, and evaluate written materials. According to Rahmi and Marnola (2020), comprehension is more than just identifying words; it involves the reader to interact with the text, construct meaning, and relate the material to past knowledge. Reading literacy is the capacity to understand and utilize written language in ways that society and/or people value, allowing readers to generate meaning from a variety of texts (Støle et al., 2020).

According to Nuttal (1982), as cited in Hermida (2024), there are five major areas of reading comprehension that learners must master: recognizing the main idea, finding specific information, forming inferences, identifying references, and comprehending vocabulary within context. Identifying the key concept helps students determine the overall message of a piece. Meanwhile, discovering particular information allows users to access specifics such as dates, names, or locations. Making inferences asks pupils to look beyond the explicit meaning and comprehend latent concepts. Recognizing references improves text cohesiveness by connecting pronouns or sentences with their antecedents. Finally, comprehending terminology and detailed information improves the overall comprehension of the text. These elements, once learned, ensure that kids can read critically and meaningfully.

To attain successful understanding, teachers must provide practices that promote efficient reading. Pulatova and Mustafayeva (2023) describe numerous approaches, including skimming, scanning, extensive reading, and intensive reading. These techniques enable readers to tailor their reading strategies to the specific aim of the reading. Skimming and scanning, in particular, are recognized as useful ways for learners to retrieve vital information in a minimal amount of time. Students who learn these approaches will have a far better understanding of academic books and other reading materials in the classroom.

Skimming and Scanning Techniques

Skimming and scanning are speed-reading techniques that help pupils assimilate information more quickly and efficiently. Skimming is an approach for getting a basic summary of a document by focusing on headings, subject sentences, and keywords instead of reading every word (Yusuf et al., 2017). Dewi (2022) recommends numerous skimming strategies, including skimming the title, introduction, initial phrases of paragraphs, and conclusion, as well as paying attention to keywords. These methods

allow students to rapidly discover the major concepts and general organization of work without devoting too much effort.

Scanning, on the other hand, is a technique for identifying particular information inside a document, such as dates, figures, or names (Shidiq et al., 2024). Unlike skimming, which seeks overall meaning, scanning looks for specific information. Buhang (2023) highlights three critical phases for scanning: determining what precise information to seek, detecting textual indications that point to its location, and swiftly sweeping the text until the information is discovered. This strategy is especially beneficial when students have to answer comprehension questions that need factual information.

Skimming and scanning techniques need eye movements that are between perception and cognition. Eye movements play a crucial part in the visual system and are connected to cognitive processes including memory, expectancies, and objectives (Ikhwantri et al., 2023). Both skimming and scanning offer considerable benefits. They enable pupils to save time, improve reading efficiency, and concentrate their attention on important sections of the text. Furthermore, these tactics promote autonomous learning by providing students with practical skills that may be used to a variety of reading settings (Cahyani et al., 2022). However, they do have restrictions. Skimming may result in missing key facts, whereas scanning takes high levels of focus and precision, which some students find difficult (Santoso, 2017 in Gulo, 2020; Aritonang et al., 2019). As a result, teachers must educate students to balance these strategies with more reading practice to achieve thorough comprehension.

Narrative Texts

Narrative texts are a major genre taught in junior high school as part of the English curriculum. They are defined as a type of writing that presents a story, whether factual or fictional, with the purpose of entertaining readers and, in some cases, conveying moral or educational messages (Sallabas, 2013). Stories in narrative texts frequently contain cultural values or moral teachings that might influence students' character development. In this sense, narrative texts serve both linguistic and social purposes in education, making them especially important for the development of reading comprehension abilities.

According to Sudarwati and Grace (2017) in Muliani et al. (2019), the social function of narrative texts is to entertain, engage, and educate readers by describing events that generally entail issues and their resolves. For example, traditional folklore frequently depicts the repercussions of certain behaviours, providing pupils with both

entertainment and moral lessons. Narrative texts, with their dual roles, are an effective medium for combining language skills with values instruction in schools.

Narrative texts are often structured with three basic components: direction, intricacy, and resolution. Orientation presents the characters, environment, and the story's first scenario. Complication depicts the struggle or problems that the characters experience, which builds tension and keeps readers engaged. Resolution concludes the tale by ending the conflict, typically leaving the readers with a lesson or moral. These structures are often supported by language elements like as past tense, action verbs, temporal connectives, and specialized characters (Nugraha, 2020). By studying narrative texts, students may improve their language skills while also practicing strategies like scanning and skimming to find important facts and ideas inside stories.

Research Method

This study employed a quantitative research approach using a pre-experimental one-group pretest–posttest design (William & Hita, 2019; Zubair, 2022; Sugiyono, 2023). The population of this study consisted of 24 eighth-grade students from SMPN 14 Tanjungpinang, located in Kampung Madong, Tanjungpinang, Riau Islands, Indonesia. The research instrument was a reading comprehension test comprising ten essay questions. The study was conducted over four instructional meetings in a one-month period, from May 8 to June 2, 2025. The pre-test was administered during the first meeting on May 8, 2025, followed by the implementation of scanning and skimming techniques in the second and third meetings, and the post-test in the fourth meeting on June 2, 2025.

The data were analyzed using students' individual scores, a normality test, and a paired-sample t-test with the assistance of SPSS (Sugiyono, 2023). To evaluate the students' reading comprehension test results, the study used an evaluation rubric consisting of three categories of responses: Relevant, Quite Relevant, and Not Relevant. The reading assessment rubric applied in this study was adapted from Nuryadi et al. (2017).

Table 1. Reading assessment rubric

No.	Category	Criteria	Score
1.	Relevant	The answer matches the information in the text, includes important details and uses the right keywords.	10
2.	Quite Relevant	The answer is still related to the content of the text but is incomplete or less specific.	5

3.	Not Relevant	The answer does not match the content of the text or does not answer the question correctly.	0

The students' final scores were calculated using the formula proposed by Cohen et al. (2018), which was applied to determine each student's score relative to the maximum possible score. In addition, the same formula was used to compute the average pre-test and post-test scores of the students (Nuryadi et al., 2017). This calculation was employed to describe the level of students' reading comprehension achievement in this study.

The normality test is used to determine whether the data are normally distributed, with a significance value greater than 0.05 indicating a normal distribution. Given that the sample size in this study consisted of 24 students, the Shapiro–Wilk test was employed for the normality analysis. According to Sianturi (2025), the Shapiro–Wilk test is most effective for small to medium sample sizes (typically fewer than 50) and also demonstrates high consistency for larger samples. This test is sensitive to deviations from a normal distribution. In this study, the Shapiro–Wilk test was applied to both pre-test and post-test data, and the results indicated that both datasets were normally distributed. Therefore, the normality test confirmed that the research data met the assumption of normal distribution. Hardani et al. (2020) determine the hypothesis in the normality test as follows: the null hypothesis (H_0) states that the data are normally distributed, while the alternative hypothesis (H_a) indicates that the data are not normally distributed. The significant value (p-value) determines whether the hypothesis should be accepted or rejected. If the p-value exceeds 0.05, H_0 is accepted, indicating that the data is regularly distributed. If the p-value is less than 0.05, H_a is accepted, indicating that the data does not follow the normal distribution.

The goal of hypothesis testing is to understand how to utilize sample data to assess the strength of evidence and to provide a framework for making population-related decisions. This study employed the paired-sample t-test in SPSS to analyze the data. The paired-sample t-test is used to compare two related datasets obtained from the same participants. In this study, the test was applied to compare the pre-test and post-test results of eighth-grade students at SMPN 14 Tanjungpinang. This is consistent with Grzegorzewski's (2022) assertion in Talikan et al. (2024) which argue that the paired sample t-test examines scenarios where two measurements are obtained from the same entity to determine whether there is statistical evidence indicating that the mean difference between paired observations significantly. This study used hypothesis testing to examine if skimming and scanning strategies affected students' understanding of narrative texts at SMPN 14 Tanjungpinang. The null hypothesis (H_0)

indicates that there is no effect, while the alternative hypothesis (H_a) implies that there is an effect. The choice was based on the significance value (p-value), with H_0 acceptable if the p-value was > 0.05 and H_a accepted if the p-value was < 0.05 (Hardani et al., 2020).

Results and Discussion

Results

The aim of this study was to evaluate how scanning and skimming strategies affected the reading comprehension of eighth-grade students at SMPN 14 Tanjungpinang in the 2024–2025 school year. The research instrument was a reading exam administered twice: once as a pre-test and once as a post-test. The following shows the results of students' pre-tests and post-tests.

Table 2. Students' test scores

No.	Initials	Pre-test	Post-test
1.	A	50	70
2.	ARH	70	90
3.	AS	55	80
4.	ARS	50	80
5.	AUW	55	70
6.	AVR	60	85
7.	BAD	70	80
8.	CC	50	100
9.	DS	85	100
10.	DAS	65	90
11.	EVP	60	90
12.	IS	55	85
13.	KNS	70	100
14.	MANR	40	80
15.	MK	40	80
16.	MAI	50	75
17.	MNH	75	90
18.	NRP	70	95
19.	NS	70	90
20.	R	60	80
21.	RDMK	50	80
22.	RS	65	90
23.	SA	45	90
24.	ZR	50	85
Highest Score		85	100
Lowest Score		40	70
Mean		58.75	85.63

Table 2 reveals that there are 24 students in the eighth-grade at SMPN 14 Tanjungpinang, indicating that each student's performance has improved. The pre-test

score varied from 40 and 85, with 85 being the highest. The post-test allowed for a maximum score of 100 and a minimum score of 70. In addition, Table 3 shows that the average score increased from 58.75 to 85.63 in the post-test.

TABLE 3. Descriptive statistics of pretest and posttest reading comprehension scores

STATISTICS	PRE-TEST	POST-TEST
Mean	58.75	85.63
95% Confidence Interval for Mean (Lower Bound)	53.88	82.03
95% Confidence Interval for Mean (Upper Bound)	63.62	89.22
5% Trimmed Mean	58.43	85.69
Median	57.50	85.00
Variance	133.152	72.418
Std. Deviation	11.539	8.510
Minimum	40	70
Maximum	85	100
Range	45	30
Interquartile Range	20	10
Skewness	.310	.019
Skewness Std. Error	.472	.472
Kurtosis	-.421	-.449
Kurtosis Std. Error	.918	.918

NORMALITY TEST

To perform a t-test on paired samples, the data must pass a normality test and be normally distributed using SPSS. The results of normality test are shown in Table 4 below. Table 4 shows that the post-test p-value (Sig.) is 0.116, while the pre-test p-value (Sig.) is 0.304. Since the post-test p-value (0.116) is greater than 0.05 and the pre-test p-value (0.304) is also greater than 0.05, the null hypothesis (H_0) is accepted and the alternative hypothesis (H_a) is rejected. This indicates that the data are normally distributed and appropriate for further statistical analysis.

TABLE 4. Shapiro–Wilk normality test results for pre-test and post-test scores

TEST	STATISTIC (W)	DF	SIG. (P)
Pre-Test	.952	24	.304
Post-Test	.933	24	.116

HYPOTHESIS TESTING

The data from the normality test was consistently distributed, as mentioned before. Thus, the study employed paired sample T-tests to assess the research hypothesis. The paired sample T-test was used to compare two datasets from the same subject. In this study, the pre-test and post-test reading comprehension scores of eighth-grade students at SMPN 14 Tanjungpinang were compared.

To test the hypothesis and examine changes in students' performance, a paired-sample t-test was conducted. Based on the assumption testing results, Table 5 shows that the pre-test and post-test scores obtained a Sig. (2-tailed) value of 0.000. The main criterion for determining statistical significance was the two-tailed Sig. value. Since the Sig. (2-tailed) value of 0.000 was less than 0.05, the null hypothesis (H_0) was rejected, while the alternative hypothesis (H_a) was accepted. This finding indicates that the use of skimming and scanning strategies significantly affected students' comprehension of narrative texts.

TABLE 5. Paired samples t-test results for pre-test and post-test scores

PAIR	PAIRED DIFFERENCES					T	DF	SIG. (2-TAILED)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 (Pre-test – Post-test)	-26.875	9.870	2.015	-31.043	-22.707	-13.339	23	.000

DISCUSSION

The results of this study have demonstrated a substantial enhancement in students' reading comprehension of narrative texts following the application of skimming and scanning techniques. Specifically, the students' average scores exhibited a considerable increase, rising from 58.75 in the pre-test to 85.63 in the post-test. This observed improvement was statistically validated by the paired-sample t-test outcomes (Sig. = 0.000 < 0.05), thereby substantiating the efficacy of these strategies in improving reading performance. Furthermore, the employment of skimming and scanning facilitated students' ability to more effectively discern main ideas and pinpoint specific textual details. As a result, these strategies fostered more focused, purposeful, and effective reading practices.

These findings are consistent with prior research (Mambua et al., 2020; Ulmi et al., 2015; Wandira et al., 2023), which found that skimming and scanning could improve comprehension by teaching students how to strategically absorb information. Skimming has been shown to assist students in identifying the main points of a text, while scanning has enabled a focused analysis of particular information; both techniques have demonstrably improved understanding. Moreover, these strategies have prompted students to engage in more active reading, thereby mitigating the perception that reading in English is challenging or protracted. The results, in essence, suggest that skimming and scanning represent useful pedagogical methods for enhancing students' reading comprehension, particularly concerning narrative texts.

Therefore, integrating these approaches into conventional reading instruction could potentially support students in developing more efficient and confident reading skills.

Conclusions

The present study demonstrated that skimming and scanning techniques have significantly improved students' comprehension of narrative texts. These techniques helped facilitate students' identification of main ideas, general information, and specific details with greater efficiency, concurrently fostering critical thinking skills and the cultivation of independent learning practices. However, the study's scope was constrained by certain limitations, including a restricted sample size, a short intervention duration, and a singular focus on one text type, potentially restricting the generalizability of the results. Notwithstanding these limitations, the findings suggest that the incorporation of skimming and scanning techniques into reading instruction can aid in the development of students' comprehension abilities and enhance classroom participation. Consequently, educators and curriculum designers are advised to integrate these techniques into their instructional approaches to promote more effective reading instruction and facilitate students' overall literacy advancement.

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