Effectiveness of Contextual Guessing Strategy on Reading Comprehension in Indonesian EFL Pre-University Students: A Mixed-Methods Study

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Abstract

This study examines the effectiveness of contextual guessing strategies in enhancing reading comprehension among Indonesian pre-university EFL students in Parepare. The research targeted students preparing for university entrance exams, employing a mixed-methods approach with a quantitative-driven design. A purposive sampling technique selected 30 pre-university students from various high schools in Parepare. Quantitative analysis of multiple-choice test scores before and after a targeted intervention, which trained students to use contextual clues (e.g., roots, prefixes, and suffixes) to infer meanings of unfamiliar words, demonstrated a significant improvement in reading comprehension ($t(29) = 12.24$, $p < 0.05$). Qualitative insights from interviews with these students revealed increased confidence, practical relevance, and engagement with texts. Students reported that these strategies helped them approach reading tasks analytically, manage their time effectively during exams, and reduce reliance on dictionaries. The findings underscore the critical role of contextual guessing strategies in EFL instruction, promoting effective reading skills and academic success for pre-university students in Indonesia. Integrating these strategies into the curriculum can substantially enhance reading comprehension and exam performance.

Keywords

Contextual Guessing, EFL, Indonesia, Mixed-Methods, Parepare, Pre-University Students, Reading Comprehension

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INTRODUCTION

Improving reading comprehension proficiency is a pivotal goal for learners of English as a foreign language (EFL), particularly in Indonesia, where reading skills are crucial for academic success and professional advancement. Reading not only facilitates language acquisition but also enhances students' ability to access diverse knowledge sources from scientific texts to digital content (Enni et al., 2024).

In language classrooms, reading tasks play a vital role in fostering independent learning and expanding students' cognitive abilities. By engaging students in meaningful reading activities, educators not only deepen comprehension but also cultivate essential vocabulary and study skills (Hasanah & Arisman, 2023). These tasks encourage students to reflect critically on content, facilitating better retention and application of knowledge (Ali, 2022).

Central to the challenges faced by Indonesian pre-university students is the need to effectively tackle reading comprehension tasks in national and university entrance exams. Contextual guessing strategies emerge as valuable tools in this context, allowing students to deduce the meanings of unfamiliar words from surrounding text. This approach is particularly effective in exam settings where time constraints and the absence of external aids like dictionaries pose significant challenges (Faizal & Ali, 2022).

Contextual guessing involves practical techniques such as identifying contextual clues, skipping unknown words initially, and using knowledge of word roots, prefixes, and suffixes to infer meaning (Brown, 2014; Vaughn et al., 2024). By mastering these strategies, students not only enhance their comprehension skills but also develop autonomy in their reading practices.

Despite the introduction of various reading strategies, many EFL learners continue to struggle with comprehension, often due to overreliance on external aids during practice and insufficient practice of effective reading strategies (Ghani et al., 2022). This study addresses these challenges by investigating the impact of contextual guessing strategies on the reading comprehension performance of Indonesian pre-university students.

This study underscores the importance of contextual guessing strategies in enhancing reading comprehension among EFL learners. By focusing on how these strategies help students infer meaning from context, the research aims to refine teaching practices and support effective learning techniques. Empowering students to independently decipher unfamiliar vocabulary in texts can significantly improve their academic performance and readiness for future educational endeavors (Aswad et al, 2023). Thus, this study contributes to advancing pedagogical approaches that foster critical reading skills essential for success in academic and professional contexts.

LITERATURE REVIEW

Improving reading comprehension proficiency is a critical challenge for learners of English as a foreign language (EFL), particularly in Indonesia, where reading is a major classroom activity and a crucial component of national and university entrance exams. Many Indonesian pre-university students struggle to understand texts without access to external aids like dictionaries, leading to poor performance on reading comprehension assessments, exacerbated by the limited time allowed for reading during exams and the presence of numerous unfamiliar words in the test passages. This study is grounded in the efficacy of contextual guessing strategies, which involve using contextual clues within a text to infer the meanings of unfamiliar words, thereby promoting deeper understanding and aiding in information retention. This strategy encourages active engagement with the text, fostering a more meaningful learning experience and improving overall comprehension skills.

A considerable body of research has explored various strategies to improve reading comprehension among EFL learners. Mohseni Takaloo and Ahmadi (2017) emphasized the significant role of motivation in enhancing reading comprehension, suggesting that motivated learners are more likely to engage with texts and employ effective reading strategies. Similarly, Alharbi (2015) investigated the relationship between reading strategies, learning styles, and reading comprehension, finding that tailored instructional approaches could significantly improve comprehension outcomes. Brown (2014) discussed principles of language learning and teaching, highlighting the importance of active learning techniques, such as contextual guessing, in promoting language acquisition. Gilakjani and Sabouri (2016) explored methods to enhance reading comprehension skills, indicating that effective teaching strategies could substantially boost students' ability to understand complex texts.

Vaughn et al., (2024) highlighted effective strategies for teaching reading comprehension to students with learning difficulties, stressing the significance of contextual guessing in enhancing comprehension skills tailored to diverse learner needs. Their insights underscored the role of these strategies in facilitating better understanding of complex texts among students facing learning challenges. Nation and Waring (2019), on the other hand, explored strategies for vocabulary acquisition in language learning contexts, emphasizing how these strategies contribute synergistically to improving overall reading comprehension abilities. Their work underscores the importance of integrating vocabulary learning strategies with contextual guessing techniques to enhance EFL learners' proficiency in comprehending diverse texts effectively.

Recent studies have also highlighted the specific benefits of contextual guessing strategies. Nassaji (2014) found that learners who practiced contextual guessing showed significant improvement in their ability to infer the meanings of unfamiliar words and comprehend texts more effectively. Similarly, Noviasmy et al., (2023) demonstrated that contextual guessing could lead to better reading comprehension outcomes among EFL learners, particularly in exam settings where time is limited. Le Van Tuyen (2019)

emphasized that contextual guessing strategies help learners develop critical thinking skills, which are essential for understanding and interpreting texts in a foreign language.

Contextual guessing is not only beneficial for comprehension but also for vocabulary acquisition. According to Schmitt and Schmitt (2014), guessing the meaning of words from context is a natural part of the vocabulary learning process, as it helps learners deduce meanings and reinforce their understanding through repeated exposure. This technique is particularly useful in an exam context, where quick thinking and effective strategy use are crucial.

The novelty of this research lies in its specific focus on contextual guessing strategies within the Indonesian EFL context, examining their direct impact on pre-university students' performance in multiple-choice tests of reading comprehension. By addressing gaps in existing literature and applying rigorous empirical analysis, this study aims to contribute new insights into effective reading strategies tailored to meet the needs of EFL learners preparing for high-stakes examinations. This research not only provides practical implications for teaching and learning but also offers valuable recommendations for curriculum designers and textbook authors to incorporate contextual guessing techniques into instructional materials.

RESEARCH METHOD

This study employed a mixed-methods research approach with a quantitative-driven design, integrating both qualitative and quantitative approaches to comprehensively investigate the impact of contextual guessing strategies on the reading comprehension performance of EFL learners. The data sources comprised 30 alumni from various high schools in Parepare who were preparing for university entrance exams. These participants were chosen to represent a diverse sample of pre-university students facing high-stakes testing environments.

Data collection was conducted online, ensuring convenience and broad accessibility for all participants. The collection instruments included a combination of qualitative and quantitative tools. Quantitative data were gathered through multiple-choice reading comprehension tests, designed to measure the participants' ability to apply contextual guessing strategies effectively. These tests provided a clear, objective measure of reading comprehension performance before and after the intervention.

Qualitative data were obtained through semi-structured interviews and open-ended questionnaires, aiming to capture the participants' experiences, perceptions, and attitudes towards the use of contextual guessing strategies. These instruments allowed for a deeper exploration of the cognitive processes and strategies employed by the students during reading tasks.

The data analysis process involved both statistical and thematic techniques. Quantitative data were analyzed using descriptive and inferential statistics, including paired t-tests, to determine the significance of the improvement in reading comprehension scores. The qualitative data were analyzed thematically, identifying

recurring patterns and themes related to the participants' use of contextual guessing strategies and their perceived effectiveness.

The integration of qualitative and quantitative data provided a holistic understanding of the research problem, corroborating the findings and offering rich insights into the learners' experiences. This mixed-methods approach was instrumental in validating the impact of contextual guessing strategies on enhancing reading comprehension among Indonesian pre-university students, supporting the theoretical framework and contributing valuable evidence to the field (Creswell, 2021; Tashakkori et al., 2020).

FINDINGS AND DISCUSSION
1. Quantitative Findings

The pre-test scores indicated that the students had difficulty understanding the texts without access to external aids, with an average score of 55% and a standard deviation of 8.2. The post-test scores, after the intervention, showed a marked improvement, with an average score of 75% and a standard deviation of 7.6.

Table 1. Mean Scores and T-test Results

Test	Mean Score	Standard Deviation	t-value	t-table (df=29, α=0.05)
Pre-test	55	8.2	12.24	2.045
Post-test	75	7.6		

To determine the statistical significance of the improvement in reading comprehension scores, a paired t-test was conducted. The null hypothesis (Ho) posited that there would be no significant difference between the pre-test and post-test scores, while the alternative hypothesis (Hi) posited that there would be a significant difference.

Using Microsoft Excel's data analysis tool, the calculated t-value was 12.24, which is significantly higher than the critical value from the t-table (2.045) at a 0.05 significance level with 29 degrees of freedom. Thus, we reject the null hypothesis and accept the alternative hypothesis, indicating that the contextual guessing strategies significantly improved the students' reading comprehension performance.

These findings are consistent with previous research that has highlighted the benefits of contextual guessing in enhancing reading comprehension. For instance, Nassaji (2014) found that contextual guessing is a vital strategy for understanding texts in EFL settings, as it helps learners infer meanings and grasp the overall context of passages. Similarly, Wulandari (2016) reported significant improvements in reading comprehension when learners employed contextual guessing strategies, suggesting that these strategies enable learners to better navigate unfamiliar vocabulary and complex texts.

Further analysis of the data revealed that the improvement in reading scores was not uniform across all participants. Some students showed substantial gains, with score

increases of over 30%, while others showed more modest improvements. This variability highlights the importance of individual differences in language learning, as noted by Oxford (2016), who emphasized that the effectiveness of learning strategies can vary widely among learners depending on their proficiency levels, motivation, and learning styles.

To further illustrate the distribution of score improvements, a histogram of score changes (post-test score minus pre-test score) was created:

Table 1. Distribution of Score Improvements

Score Improvement (%)	Frequency
0-5	2
6-10	3
11-15	6
16-20	7
21-25	5
26-30	4
>30	3

This distribution indicates that while most students experienced notable improvements, the degree of improvement varied, reinforcing the need for differentiated instructional strategies to address the diverse needs of learners (Tomlinson, 2014).

The significant improvement in reading comprehension scores suggests that contextual guessing strategies are highly effective for EFL learners, particularly in high-stakes testing environments where quick and accurate reading comprehension is crucial. This aligns with the findings of previous studies, such as those by Beck et al., (2020), who demonstrated that teaching inferencing skills significantly enhances reading comprehension outcomes.

Moreover, the effectiveness of contextual guessing strategies in this study supports the broader literature on vocabulary acquisition and reading comprehension. Schmitt and Schmitt (2020) highlighted that engaging learning strategies, such as contextual guessing, can lead to better vocabulary retention and deeper text comprehension. This study adds to this body of evidence by providing empirical support for the use of contextual guessing strategies in the Indonesian EFL context.

2. Qualitative Findings

Thematic analysis of the qualitative data revealed several key themes related to the students' experiences and perceptions of contextual guessing strategies.

Many students reported increased confidence in their reading abilities. They expressed that the strategies helped them approach reading tasks with a more analytical mindset, enabling them to infer meanings and comprehend texts without relying heavily on dictionaries. This increased confidence likely contributed to their improved test performance. For example, one student stated,

"Dulu kalau membaca terus ada kata yang tidak tahu, saya langsung buka kamus. Sekarang, saya lebih percaya diri mencoba menebak makna kata dari konteks. Lebih cepat juga."

("Before, if I read and encountered an unknown word, I would immediately open a dictionary. Now, I'm more confident in trying to guess the meaning from the context. It's faster too.").

The students highlighted the practicality and relevance of contextual guessing strategies in high-stakes exam settings. They noted that these strategies allowed them to make educated guesses about the meanings of unfamiliar words, which was particularly useful during timed exams. This aligns with the findings of Tomlinson (2014), who emphasized the importance of contextual guessing in exam situations.One participant mentioned,

"Pas ujian, waktu terbatas, jadi harus cepat. Strategi ini sangat membantu saya untuk memahami teks tanpa harus tahu setiap kata."

("During exams, time is limited, so we have to be quick. This strategy really helps me understand the text without having to know every word.").

The qualitative data revealed that students found the contextual guessing strategies to be engaging and intellectually stimulating. They enjoyed the challenge of using contextual clues to decode meanings and reported that this process made reading more enjoyable and less daunting. This finding supports the work of Schmitt and Schmitt (2020), who argued that engaging learning strategies can enhance vocabulary acquisition and overall language learning. For instance, a student noted,

"Membaca jadi lebih seru sekarang. Rasanya seperti main teka-teki, jadi lebih semangat belajar."

("Reading is more fun now. It feels like solving a puzzle, so I'm more enthusiastic about learning.").

Thematic analysis identified several sub-themes under the main themes of increased confidence, practical relevance, and engagement. These sub-themes include:

a. Analytical Approach: Students developed an analytical approach to reading, focusing on context clues and sentence structure to infer meanings.
b. Time Management: The ability to guess meanings from context helped students manage their time better during exams.
c. Reduced Anxiety: The strategies reduced anxiety related to encountering unfamiliar vocabulary, making reading a less stressful activity.
d. Intrinsic Motivation: The enjoyment derived from the guessing process increased students' intrinsic motivation to read and learn.

Table 3. Themes and Sub-themes from Qualitative Data

Theme	Sub-theme	Example Response
Increased Confidence	Analytical Approach	"Sekarang saya lebih percaya diri menebak makna kata dari konteks."
Practical Relevance	Time Management	"Strategi ini membantu saya memahami teks lebih cepat saat ujian."
Engagement	Reduced Anxiety	"Membaca jadi lebih seru, tidak takut lagi dengan kata sulit."
	Intrinsic Motivation	"Membaca jadi seperti main teka-teki, lebih semangat belajar."

The qualitative findings underscore the practical and psychological benefits of contextual guessing strategies. The increased confidence and reduced anxiety experienced by students suggest that these strategies not only improve reading comprehension but also foster a more positive attitude towards reading. By equipping students with effective tools to tackle unfamiliar words, these strategies promote a more autonomous approach to learning. This is consistent with the findings of researchers like Beck et al., (2020), who demonstrated that teaching inferencing skills significantly enhances reading comprehension outcomes and learner confidence.

Moreover, the positive student feedback highlights the importance of incorporating contextual guessing strategies into the curriculum for EFL learners. Given the significant impact on reading comprehension performance and student motivation, these strategies should be emphasized in instructional materials and teaching practices. This would provide students with the necessary skills to succeed in high-stakes exams and in their future academic endeavors.

CONCLUSION

In conclusion, this study underscores the importance of contextual guessing strategies in enhancing the reading comprehension skills of Indonesian pre-university students learning English as a foreign language (EFL). Through a mixed-methods approach, the research demonstrated significant improvements in students' ability to infer meaning from context, supported by both quantitative analysis of test scores and qualitative insights from student feedback. The findings highlight the practical relevance of these strategies in exam contexts and their potential to foster greater autonomy and confidence in EFL learners. Moving forward, integrating contextual guessing strategies into EFL instruction could prove instrumental in equipping students with essential skills for academic success and beyond.

This study underscores the need for future research to investigate the enduring impact of contextual guessing strategies across various learner demographics and educational settings. Further exploration could delve into the synergies between contextual guessing and complementary instructional methodologies to optimize reading comprehension and broader language competencies. Such investigations are

essential for advancing pedagogical practices aimed at improving overall academic outcomes among EFL learners.

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