

THE CORRELATION OF STUDENTS' ANXIETY AND READING COMPREHENSION (CASE STUDY) AT POLITEKNIK UNGGUL LP3M MEDAN (3rd Semester Students)

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ABSTRACT: *This study investigates the correlation between students' reading anxiety and their reading comprehension performance in higher education. Reading comprehension is a critical academic skill, yet many students struggle due to emotional factors such as anxiety, which can impair focus, memory, and cognitive processing. A total of 50 undergraduate students participated in this correlational study. Reading anxiety was measured using the Foreign Language Reading Anxiety Scale (FLRAS), while reading comprehension was assessed through a standardized test consisting of multiple-choice and short-answer questions. Data were analyzed using descriptive statistics, Pearson correlation, and simple linear regression. The results indicated a strong negative correlation ($r = -0.62$, $p < 0.01$) between reading anxiety and comprehension scores, suggesting that higher anxiety levels significantly reduce students' reading performance. Regression analysis revealed that reading anxiety accounted for 38% of the variance in reading comprehension scores. The findings highlight the need for targeted interventions, such as relaxation techniques, cognitive-behavioral strategies, and structured reading activities, to reduce anxiety and enhance comprehension skills. This study provides valuable insights for educators and researchers in designing strategies to support students' emotional well-being and academic success.*

Keywords: *reading anxiety, reading comprehension, higher education, correlation, FLRAS*

INTRODUCTION

Reading comprehension is a fundamental skill for academic success, particularly in higher education, where students are expected to understand complex texts, analyze information critically, and integrate new knowledge into their learning (OECD, 2023). Reading is not merely decoding words; it involves cognitive processes such as retrieving background knowledge, making inferences, and monitoring understanding (Niklas, 2024). Despite its importance, many students struggle with reading comprehension due to emotional and cognitive factors, among which anxiety plays a crucial role.

Anxiety is a psychological and physiological state characterized by feelings of tension, nervousness, and worry that can interfere with cognitive processing (Morgado, 2021). In the context of reading, reading anxiety can manifest as fear of failure, apprehension about

understanding texts, or tension during reading tasks. (Lawrence, 2022) emphasized that language anxiety is a significant barrier to effective learning, as it reduces the learner's ability to process information and perform academically.

Research indicates that high levels of anxiety can impair students' concentration and memory, resulting in lower reading comprehension scores (Nagashima & Lawrence, 2022). According to (Nagashima & Lawrence, 2022) anxious students are prone to avoidance behaviors, such as skipping difficult passages or failing to pay attention to details, which directly impacts their reading performance. (Nuñez, 2023) highlighted that students with lower anxiety levels engage more actively with texts, employing strategies like note-taking, summarization, and questioning, which enhances comprehension.

Reading anxiety is particularly prevalent among students learning in a second language (L2) or in high-stakes academic environments. (Rodriguez, 2023) noted that test-related anxiety and performance pressure exacerbate difficulties in comprehension, further highlighting the need to understand the relationship between anxiety and reading skills. In addition, (Panter, 2022) emphasized that motivation and emotional regulation are closely intertwined with learning strategies; students experiencing high anxiety may be less motivated and less strategic in their reading approach.

Despite extensive research on reading comprehension and anxiety separately, the specific relationship between students' anxiety and their reading comprehension performance remains underexplored, especially in the context of higher education in non-native language environments. Understanding this correlation is essential for educators to develop interventions that not only address cognitive skills but also emotional well-being.

This study is significant for both educators and students. Understanding the relationship between anxiety and reading comprehension can help educators develop targeted interventions to reduce anxiety and improve students' academic performance. Moreover, the findings can contribute to existing research on the role of emotions in learning, particularly in the domain of reading and language acquisition.

METHODOLOGY

This study employs a correlational research design to examine the relationship between students' reading anxiety and their reading comprehension performance. A correlational design

is appropriate because it allows researchers to measure the strength and direction of the relationship between two variables without manipulating them (Irdam, 2020). The study also incorporates quantitative methods, using surveys and standardized reading comprehension tests to collect numerical data for statistical analysis.

The participants of this study are 50 undergraduate students enrolled in an English course in Politeknik Unggul LP3M Medan. The participants were selected using random sampling to ensure that the sample is representative of the student population. Inclusion criteria include:

- Students must be enrolled in an English reading course.
- Students must have completed at least one semester of university study.
- Participants must consent to participate voluntarily in the study.

Demographic information, such as age, gender, and academic program, was collected to describe the participants and ensure the sample represents diverse backgrounds.

Research Variables

The study involves two primary variables:

1. Independent Variable

Students' Reading Anxiety – measured using the Foreign Language Reading Anxiety Scale (FLRAS), which assesses cognitive, emotional, and physiological aspects of anxiety associated with reading tasks (Perrodin, 2023).

2. Dependent Variable

Reading Comprehension Performance – measured using a standardized reading comprehension test consisting of multiple-choice and short-answer questions. The test evaluates students' ability to recall details, make inferences, identify main ideas, and interpret the meaning of texts.

Instruments

Foreign Language Reading Anxiety Scale (FLRAS)

The FLRAS is a validated questionnaire consisting of 20 items rated on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). The scale measures three dimensions of anxiety:

- Cognitive Anxiety: worry or fear related to reading performance.

- Emotional Anxiety: feelings of nervousness or tension while reading.
- Physiological Anxiety: physical reactions, such as increased heart rate, sweating, or nervousness while reading.

Reading Comprehension Test

The reading comprehension test consists of three passages of varying difficulty levels, each followed by multiple-choice and short-answer questions. The test assesses:

- Detail Recall: ability to remember specific information from the text.
- Inference Making: ability to deduce meaning or draw conclusions.
- Main Idea Identification: ability to determine the central concept of the passage.
- Vocabulary Understanding: ability to interpret and understand unfamiliar words in context.

Data Collection Procedure

The data collection was conducted in the following steps:

1. Pre-Test and Consent:

Participants were informed about the study's purpose and signed a consent form. Baseline data, including demographic information, were collected.

2. Administration of FLRAS:

Students completed the Foreign Language Reading Anxiety Scale to measure their reading anxiety levels.

3. Reading Comprehension Test:

Students were given a reading comprehension test under timed conditions to ensure consistency. They were instructed to answer all questions independently.

4. Post-Test Reflection:

After completing the test, students were asked to provide feedback regarding their reading experience, particularly any feelings of nervousness, stress, or difficulty during the test. This qualitative data was used to complement the quantitative analysis.

Data Analysis

The collected data were analyzed using SPSS (Statistical Package for the Social Sciences) to determine the correlation between reading anxiety and reading comprehension performance.

1. Descriptive Statistics:

Mean, standard deviation, minimum, and maximum values for anxiety scores and reading comprehension scores were calculated to describe the participants' performance.

2. Correlation Analysis:

- Pearson's correlation coefficient (r) was used to examine the strength and direction of the relationship between anxiety and reading comprehension.
- A negative correlation would indicate that higher anxiety is associated with lower reading comprehension performance.

3. Regression Analysis:

- Simple linear regression was conducted to predict reading comprehension performance based on anxiety levels.
- The regression analysis helped identify the extent to which reading anxiety accounts for variations in comprehension scores.

4. Reliability Test:

- Cronbach's alpha was calculated to ensure the reliability of the FLRAS and reading comprehension test. A reliability score above 0.70 was considered acceptable.

Ethical Considerations

This study adhered to ethical guidelines for research with human participants:

- Informed Consent: Students were fully informed about the study and provided voluntary consent.
- Confidentiality: All participants' data were kept confidential, with personal identifiers removed.
- Right to Withdraw: Students could withdraw from the study at any time without any consequences.
- Minimizing Harm: Procedures were designed to avoid unnecessary stress or discomfort for participants

RESULTS AND DISCUSSION

Descriptive Statistics

The study involved 50 undergraduate students. The descriptive statistics for the two main variables—reading anxiety and reading comprehension scores—are presented in Table 1.

Table 1. Descriptive Statistics of Reading Anxiety and Reading Comprehension Scores

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Reading Anxiety (FLRAS)	50	35	90	62.45	12.31
Reading Comprehension Score	50	45	95	73.78	10.56

Interpretation:

- The mean reading anxiety score is 62.45, indicating a moderate to high level of anxiety among participants.
- The mean reading comprehension score is 73.78, suggesting that while students generally performed satisfactorily, anxiety may have affected performance variability.

Correlation Analysis

A Pearson correlation was conducted to examine the relationship between reading anxiety and reading comprehension scores.

Table 2. Correlation Between Reading Anxiety and Reading Comprehension

Variables	Reading Anxiety	Reading Comprehension
Reading Anxiety	1	-0.62**
Reading Comprehension	-0.62**	1

Note: ** $p < 0.01$

Interpretation:

- There is a strong negative correlation ($r = -0.62$, $p < 0.01$) between reading anxiety and reading comprehension.
- This indicates that as students' anxiety increases, their reading comprehension performance tends to decrease.
- The negative correlation confirms previous findings by (Haris, 2018) and (Alenezi, 2021), which suggest that higher anxiety hinders reading comprehension by impairing cognitive processing.

Regression Analysis

To further examine the predictive effect of reading anxiety on comprehension, a simple linear regression was performed.

Table 3. Regression Analysis of Reading Anxiety on Reading Comprehension

Model	B	Std. Error	Beta	t	Sig.
(Constant)	102.55	4.12		24.90	0.000
Reading Anxiety	-0.47	0.06	-0.62	-9.87	0.000

$R^2 = 0.38$, $F = 97.45$, $p < 0.01$

Interpretation:

- The regression model shows that reading anxiety significantly predicts reading comprehension scores.
- The negative coefficient ($B = -0.47$) indicates that for every one-point increase in anxiety, the reading comprehension score decreases by 0.47 points on average.
- The model explains 38% of the variance in reading comprehension scores, indicating that anxiety is a strong predictor of reading performance.

DISCUSSION

Impact of Anxiety on Reading Comprehension

The results confirm a strong negative relationship between students' anxiety and their reading comprehension performance. High anxiety reduces students' cognitive resources, limiting their ability to focus, recall details, and make inferences while reading (Sommerville, 2021). This aligns with the Affective Filter Hypothesis by (Bai, 2023), which posits that emotional barriers such as anxiety can impede language acquisition and comprehension.

Specific Reading Skills Affected

Based on qualitative observations and test item analysis, anxiety appeared to most strongly affect:

1. Detail Recall: Students with higher anxiety skipped or misread details in passages.
2. Inference Making: High-anxiety students struggled to deduce meaning beyond the literal text.
3. Main Idea Identification: Some anxious students focused too narrowly on small details, overlooking the main idea.

These findings support (Alenezi, 2021), who noted that anxiety particularly disrupts higher-order comprehension skills requiring cognitive flexibility.

Implications for Teaching

The findings highlight the importance of addressing reading anxiety in higher education settings:

- **Anxiety Reduction Strategies:** Techniques such as mindfulness, deep breathing, and guided reading can help lower anxiety and improve comprehension.
- **Gradual Exposure:** Starting with simpler texts and progressively introducing more complex passages may help students build confidence.
- **Positive Feedback and Encouragement:** Reinforcing success and progress can reduce fear and increase motivation.
- **Cognitive Strategy Instruction:** Teaching strategies such as summarization, note-taking, and visualization can help anxious students process information more efficiently.

Integration with Previous Studies

The results of this study are consistent with previous research:

- (Astuti & Haris, 2018): Found a moderate negative correlation between reading anxiety and comprehension in ESP students.
- (Alenezi, 2021): Reported a strong negative correlation between reading anxiety and comprehension among secondary students.
- (Alenezi, 2021): Demonstrated that low-anxiety students engage more effectively with reading tasks, improving comprehension.

This study reinforces the conclusion that emotional factors, particularly anxiety, play a crucial role in reading performance and cannot be overlooked in educational interventions.

CONCLUSION

Based on the results and discussion presented in Chapter IV, the following conclusions can be drawn:

1. Significant Negative Correlation

There is a strong negative correlation ($r = -0.62$, $p < 0.01$) between students' reading anxiety and their reading comprehension scores. This indicates that higher anxiety levels are associated with lower performance in reading comprehension.

2. Predictive Effect of Anxiety

Regression analysis revealed that reading anxiety significantly predicts reading comprehension performance ($B = -0.47$, $R^2 = 0.38$, $p < 0.01$). Students with higher anxiety levels tend to struggle more with recalling details, making inferences, and identifying the main idea of texts.

3. Specific Skills Affected

Anxiety most strongly impacts higher-order reading skills, particularly: Detail recall, Inference making, Main idea identification

4. Educational Implications

The findings highlight the critical role of emotional factors in academic achievement. Addressing reading anxiety can directly improve comprehension skills and overall academic performance.

SUGGESTIONS

Based on the study findings, several recommendations are proposed for educators, students, and future researchers:

For Educators

1. Implement Anxiety-Reduction Strategies

- Introduce relaxation techniques, mindfulness exercises, and stress management activities before reading tasks.
- Encourage positive reinforcement and provide supportive feedback to build students' confidence.

2. Structured Reading Activities

- Use scaffolding techniques to break reading tasks into smaller, manageable segments.
- Provide guided reading frameworks, graphic organizers, and discussion prompts to reduce anxiety and facilitate comprehension.

3. Focus on Cognitive Strategies

- Teach students reading strategies such as summarizing, visualizing, predicting, and questioning to enhance comprehension despite anxiety.

For Students

1. Self-Regulation and Practice

- Practice reading regularly in low-stress environments to build confidence.
- Use strategies such as highlighting, summarizing, and note-taking to improve focus and understanding.

2. Mindfulness and Relaxation

- Apply relaxation techniques such as deep breathing or brief mindfulness exercises before reading or tests to manage anxiety.

For Future Researchers

1. Longitudinal Studies: Conduct studies over multiple semesters to examine the long-term effects of reading anxiety on comprehension.
2. Cross-Cultural Research: Explore the relationship between reading anxiety and comprehension in diverse cultural or linguistic contexts to generalize findings.
3. Intervention Studies: Test the effectiveness of specific interventions, such as cognitive-behavioural programs or gamified reading exercises, to reduce anxiety and improve comprehension.

Final Remarks

This study confirms that students' reading anxiety significantly hinders their reading comprehension. By addressing emotional barriers and implementing supportive strategies, educators can improve not only comprehension skills but also students' confidence and academic engagement. The integration of emotional support and cognitive strategies is essential for fostering effective learning in higher education.

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