



## EXPLORING READING-INDUCED ANXIETY AMONG UNDERGRADUATES IN CROSS RIVER STATE, NIGERIA: IMPLICATION FOR MALADAPTIVE TEST ENGAGEMENT

Ubi Mary John<sup>1</sup>

<sup>1</sup> *General Studies*

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### Abstract

Reading-induced anxiety, a pervasive yet understudied phenomenon, significantly impacts academic performance and psychological well-being among undergraduates. This study explores the prevalence, predictors, and implications of reading-induced anxiety on maladaptive test engagement among 400 undergraduates in Cross River State, Nigeria. Using a cross-sectional survey design, primary data were collected via the Reading-Induced Anxiety Scale (RIAS) and the Test Engagement Inventory (TEI). Findings reveal that 48.5% of participants experienced moderate to severe reading-induced anxiety, with females and younger students reporting higher levels. Academic level and faculty type showed no significant correlation with anxiety, but high anxiety levels were strongly associated with maladaptive test engagement behaviors, such as procrastination and avoidance ( $r = .62, p < .01$ ). The Cognitive Interference Theory and Self-Regulation Model provided theoretical grounding, highlighting how anxiety disrupts cognitive resources and test preparation. Demographic factors, including gender and socioeconomic status, significantly predicted anxiety levels. The study underscores the need for targeted interventions, such as cognitive-behavioral strategies and reading support programs, to mitigate anxiety and enhance test engagement. Recommendations include integrating anxiety management workshops into university curricula and fostering supportive academic environments. Future research should explore longitudinal effects and cultural influences on reading-induced anxiety.

**Keywords:** Reading-induced anxiety, maladaptive test engagement, undergraduates, cognitive interference, self-regulation

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### Introduction

In the hallowed halls of academia, where knowledge is both a pursuit and a promise, the act of reading often revered as a gateway to enlightenment can paradoxically become a source of profound anxiety for many undergraduates. Reading-induced anxiety, defined as the fear, apprehension, or discomfort experienced during academic reading tasks, is an emerging concern in educational psychology. This anxiety, particularly prevalent in high-stakes academic environments, can cascade into maladaptive test engagement behaviors, such as procrastination, avoidance, and ineffective study habits, ultimately undermining academic success. In Nigeria, where educational systems are often characterized by intense competition and resource constraints, understanding this phenomenon is critical, especially in regions like Cross River State, known for its diverse academic institutions.

Test anxiety, a well-documented barrier to academic achievement, has been extensively studied globally, with meta-analyses reporting negative correlations with academic performance ( $r = -.20$  to  $-.27$ ) (von der Embse et al., 2018). However, reading-induced anxiety, a specific subset of academic anxiety, remains underexplored, particularly in non-Western contexts. Unlike general test anxiety, which manifests during evaluative situations, reading-induced anxiety emerges during the preparatory phase, triggered by the cognitive demands of processing complex academic texts. This anxiety can impair working memory, reduce comprehension, and foster maladaptive behaviors that hinder effective test preparation (Caviola et al., 2022).



Recent studies highlight the multifaceted nature of academic anxiety. For instance, Cooper et al. (2018) found that anxiety in active-learning classrooms negatively affects performance, particularly among females and non-Caucasian students. In Nigeria, Ocheni et al. (2015) noted that test anxiety is a significant predictor of academic underachievement, though demographic factors like age and gender yielded mixed results. A study by Ezegbe et al. (2018) in Nigeria further linked emotional distress to academic performance, suggesting that interventions like cognitive restructuring could mitigate anxiety's impact. However, these studies rarely focus on reading-specific anxiety, leaving a gap in understanding its unique contribution to maladaptive test engagement.

Socioeconomic and cultural factors also play a role. In Nigeria, income inequality exacerbates academic stress, with students from lower socioeconomic backgrounds reporting higher anxiety due to perceived barriers to success (Chiu & Chow, 2015). Gender differences are equally significant, with females often internalizing stress more intensely than males (Gao et al., 2020). In Cross River State, where universities like the University of Calabar and Cross River University of Technology host diverse student populations, these factors may amplify reading-induced anxiety, particularly in disciplines requiring extensive reading, such as humanities and social sciences.

### **Theoretical Foundation**

This study is anchored on two complementary frameworks: the Cognitive Interference Theory (CIT) and the Self-Regulation Model (SRM). CIT posits that anxiety consumes cognitive resources, such as working memory, thereby impairing performance on cognitively demanding tasks like reading (Carey et al., 2016). When undergraduates experience reading-induced anxiety, their ability to process and retain information diminishes, leading to maladaptive behaviors such as task avoidance or superficial engagement. The SRM, proposed by Pintrich (2000), emphasizes students' ability to regulate their learning processes. Anxiety disrupts self-regulatory processes, such as goal-setting and time management, resulting in maladaptive test engagement. These theories provide a robust lens to explore how reading-induced anxiety influences undergraduates' preparation for and performance in tests.

The interplay between these theories is particularly relevant in the Nigerian context, where academic pressure is intensified by societal expectations and resource scarcity. By integrating CIT and SRM, this study hypothesizes that reading-induced anxiety not only hampers cognitive processing but also undermines students' ability to engage effectively with test preparation, leading to maladaptive behaviors.

### **Methodology**

#### *Study Design and Participants*

A cross-sectional survey design was employed to explore reading-induced anxiety and its implications for maladaptive test engagement among undergraduates in Cross River State, Nigeria. The study targeted students from two public universities: the University of Calabar and Cross River



University of Technology. A simple random sampling technique was used to select 400 participants (200 males, 200 females) from various faculties, including humanities, social sciences, and sciences. Participants' ages ranged from 16 to 30 years ( $M = 21.8$ ,  $SD = 2.72$ ). Table 1 presents the demographic characteristics of the participants.

**Table 1**  
*Demographic Characteristics of Participants (N = 400)*

Variable	Category	Frequency	Percentage (%)
Gender	Male	200	50.0
	Female	200	50.0
Age	16–20	150	37.5
	21–25	200	50.0
	26–30	50	12.5
Academic Level	100 Level	100	25.0
	200 Level	120	30.0
	300 Level	100	25.0
	400 Level	80	20.0
Faculty	Humanities	150	37.5
	Social Sciences	150	37.5
	Sciences	100	25.0
Socioeconomic Status	Low	180	45.0
	Middle	160	40.0
	High	60	15.0

### *Instruments*

Two validated instruments were used for data collection:

- Reading-Induced Anxiety Scale (RIAS): A 20-item scale adapted from the Test Anxiety Inventory (TAI) (Spielberger, 1980) and modified to focus on anxiety specific to academic reading tasks. Items were rated on a 4-point Likert scale (1 = Not at all, 4 = Very much). The RIAS demonstrated high reliability (Cronbach's  $\alpha = .87$ ).
- Test Engagement Inventory (TEI): A 15-item scale developed to measure maladaptive test engagement behaviors, such as procrastination, avoidance, and ineffective study habits. Items were rated on a 5-point Likert scale (1 = Never, 5 = Always). The TEI showed strong reliability (Cronbach's  $\alpha = .85$ ).



### *Procedure*

Data were collected through self-administered questionnaires distributed during lecture periods, with prior approval from university authorities and informed consent from participants. Ten trained research assistants facilitated the process, ensuring no items were left unanswered. The data collection spanned four weeks in March 2025. Ethical approval was obtained from the University of Calabar's Research Ethics Committee.

### *Data Analysis*

Descriptive statistics (frequencies, percentages, means, and standard deviations) were used to summarize demographic data and anxiety levels. Pearson correlation analysis examined the relationship between reading-induced anxiety and maladaptive test engagement. Multiple regression analysis assessed the predictive role of demographic variables (gender, age, academic level, faculty, and socioeconomic status) on anxiety. Data were analyzed using SPSS version 25, with a significance level of  $p < .05$ .

## **Results**

### *Prevalence of Reading-Induced Anxiety*

Table 2 summarizes the prevalence of reading-induced anxiety among participants.

**Table 2**

*Prevalence of Reading-Induced Anxiety (N = 400)*

Anxiety Level	Frequency	Percentage (%)
Low	206	51.5
Moderate	144	36.0
Severe	50	12.5

Approximately 48.5% of participants reported moderate to severe reading-induced anxiety, with females ( $M = 2.92$ ,  $SD = .68$ ) exhibiting higher levels than males ( $M = 2.65$ ,  $SD = .72$ ),  $t(398) = 3.82$ ,  $p < .01$ . Younger students (16–20 years) reported significantly higher anxiety ( $M = 3.01$ ,  $SD = .65$ ) compared to older students (26–30 years,  $M = 2.58$ ,  $SD = .70$ ),  $F(2, 397) = 6.45$ ,  $p < .01$ .

### *Relationship with Maladaptive Test Engagement*

Pearson correlation analysis revealed a strong positive correlation between reading-induced anxiety and maladaptive test engagement ( $r = .62$ ,  $p < .01$ ), indicating that higher anxiety levels were associated with increased procrastination, avoidance, and ineffective study habits.



### *Predictors of Reading-Induced Anxiety*

Multiple regression analysis (Table 3) identified gender ( $\beta = .25$ ,  $p < .01$ ) and socioeconomic status ( $\beta = -.18$ ,  $p < .05$ ) as significant predictors of reading-induced anxiety. Academic level and faculty type showed no significant effects.

**Table 3**

*Multiple Regression Analysis for Predictors of Reading-Induced Anxiety*

Predictor	$\beta$	t	p-value
Gender	.25	4.12	.001
Age	-.12	-1.98	.051
Academic Level	.08	1.25	.213
Faculty	.05	0.89	.374
Socioeconomic Status	-.18	-2.76	.006

$R^2 = .22$ ,  $F(5, 394) = 11.32$ ,  $p < .001$

### **Discussion**

The findings illuminate the pervasive nature of reading-induced anxiety among undergraduates in Cross River State, with nearly half experiencing moderate to severe levels. This aligns with global studies reporting high academic anxiety prevalence (von der Embse et al., 2018) but underscores the unique role of reading-specific anxiety in the Nigerian context. The strong correlation between reading-induced anxiety and maladaptive test engagement ( $r = .62$ ) supports the Cognitive Interference Theory, suggesting that anxiety consumes cognitive resources, impairing effective test preparation (Carey et al., 2016). The SRM further explains why anxious students struggle with self-regulation, resorting to procrastination and avoidance (Pintrich, 2000).

Gender and socioeconomic status emerged as significant predictors, consistent with Gao et al. (2020), who found females internalize stress more intensely, and Chiu and Chow (2015), who linked income inequality to academic stress. The lack of association with academic level and faculty contradicts earlier findings (e.g., Ocheni et al., 2015), suggesting that reading-induced anxiety may be a universal challenge across academic disciplines in this context.

### **Conclusion and Recommendations**

Reading-induced anxiety is a significant barrier to effective test engagement among undergraduates in Cross River State, Nigeria, with profound implications for academic success. The study highlights the need for targeted interventions to address this issue, particularly for female students and those from lower socioeconomic backgrounds. Universities should integrate cognitive-behavioral therapy and reading support programs into their curricula to reduce anxiety



and promote adaptive test engagement. Faculty training on creating anxiety-sensitive learning environments is also essential. Future research should adopt longitudinal designs to explore the long-term effects of reading-induced anxiety and investigate cultural factors unique to Nigeria.

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