VNU Journal of Foreign Studies

Journal homepage: https://jfs.ulis.vnu.edu.vn/

IMPACT OF FOREIGN LANGUAGE READING ANXIETY FACTORS ON READING PERFORMANCE

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Received 05 July 2024
Revised 07 October 2024; Accepted 15 November 2024

Abstract: The impact of reading anxiety on reading performance and the mediating role of reading strategies in the anxiety-performance relationship has not been extensively evaluated, particularly in Vietnamese contexts. This paucity has called for the current quantitative research. A questionnaire survey, including three main scales (reading anxiety, reading strategies, and reading performance), was conducted by 387 English as a foreign language (EFL) students in Information Technology. A Partial least squares-structural equation modelling (PLS-SEM) method was applied to data analysis. Results showed that anxiety about linguistic text issues (LTI) impacted both support reading strategies (SUP) and reading performance, while reading topic anxiety affected only reading performance but not SUP. Further, linguistic text issues impacted reading performance through SUP, while SUP did not mediate the relationship between reading topic anxiety and reading performance. Implications and suggestions for future research were also discussed.

Keywords: foreign language reading anxiety, reading strategies, reading performance, PLS-SEM

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https://doi.org/10.63023/2525-2445/jfs.ulis.5328

TÁC ĐỘNG CỦA CÁC YẾU TỐ LO ÂU ĐỌC VĂN BẢN NGOẠI NGỮ ĐẾN HIỆU SUẤT ĐỌC

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Nhận bài ngày 05 tháng 7 năm 2024
Chỉnh sửa ngày 07 tháng 10 năm 2024; Chấp nhận đăng ngày 15 tháng 11 năm 2024

Tóm tắt: Tác động của lo âu lên hiệu suất đọc và vai trò trung gian của chiến lược đọc hiểu trong mối quan hệ của hai biến trên chưa được đánh giá rộng rãi, đặc biệt trong bối cảnh Việt Nam. Nghiên cứu định lượng này được thực hiện với sự tham gia của 387 sinh viên ngành Công nghệ thông tin trong các lớp học tiếng Anh như một ngoại ngữ (EFL). Bảng khảo sát gồm 3 phần: khảo sát về lo âu đọc, chiến lược đọc hiểu, và hiệu suất đọc. Phương pháp mô hình phương trình cấu trúc bình phương tối thiểu riêng phần (PLS-SEM) được sử dụng để phân tích số liệu. Kết quả cho thấy lo âu đọc liên quan đến các vấn đề văn bản ngôn ngữ ảnh hưởng đến cả chiến lược đọc (cụ thể là chiến lược hỗ trợ đọc) và hiệu suất đọc. Lo âu đọc do chủ đề đọc gây ra chỉ ảnh hưởng đến hiệu suất đọc mà không tác động đến chiến lược hỗ trợ đọc hiểu. Ngoài ra, chiến lược hỗ trợ đọc hiểu đóng vai trò trung gian trong mối quan hệ giữa lo âu đọc do tác động của văn bản ngôn ngữ và hiệu suất đọc. Tuy nhiên, các chiến lược đọc không có tác động có ý nghĩa thống kê trong mối quan hệ giữa lo âu đọc do chủ đề và hiệu suất đọc.

Từ khóa: lo âu đọc, chiến lược đọc, hiệu suất đọc, PLS-SEM

1. Introduction

Reading is very important in all aspects of life (Heyne et al., 2023). Reading is essential for academic success in scholarly contexts, especially when acquiring a second or foreign language (Habib & Watkins, 2023). However, it is assumed that the successful performance of the reading process might be obstructed by various factors, including readers' psychological states and reading strategies. One of the emotional states suffered by readers is anxiety, which is believed to possibly facilitate or deliberate reading performance (Krashen, 1982; Dörnyei, 2005) while reading strategies function as a bridge linking reading to successful reading performance that is measured through scores, GPA, or language tests (Teimouri et al., 2019). Whether there is a relationship between these variables (reading anxiety, reading strategies, and reading performance) is of concern, leading to delving deeply into the existing literature for further information.

As a result, former research has indicated that reading anxiety (RA) has dynamically affected reading performance (e.g., Kim, 2021; Tsai & Lee, 2018). However, these findings have not been deeply analyzed. Specifically, the authors have merely centred on the summed score of reading anxiety (e.g., Hassaskhah & Joghataeian, 2016) or reading anxiety levels (e.g., Tsai & Lee, 2018) to observe the relationship between reading anxiety and reading performance. Similarly, the summed scores and RA levels have been independent variables in the reading strategy-reading performance relationship (e.g., Mokhtarnia & Ghaffarzadeh, 2020). Furthermore, no studies have examined the mediating role of reading strategies in the

anxiety-performance relationship. Other limitation is that these previous studies applied SPSS software to process and analyze data. The SPSS software cannot provide analysis of multivariable relationships like a PLS-SEM approach (Zeng et al., 2021)

To address these gaps, the current investigation employed a PLS-SEM approach to elucidate further the impact of reading anxiety factors, particularly linguistic text issues (LTI) and reading topics (RT), on reading performance rather than using summed scores or RA levels. Additionally, the research examined the mediating role of reading strategies in the relationship between reading anxiety factors and reading performance.

Contributions of the current research lie in both theory and practice. Theoretically, the PLS-SEM approach has not been applied in any prior studies (e.g., Ghaith, 2020; Kim, 2021; Tsai & Lee, 2018). Results revealed from the PLS-SEM model have illuminated the impact of the smallest aspects of reading anxiety on reading performance, which no past studies have at any time effectuated (e.g., Ghaith, 2020). Similarly, our research is also the first to have identified the mediation of reading strategies, specifically Support Strategies (SUP), in the reading anxiety-reading performance relationship. Practically, findings made public from this study might foster instructional methodologies.

2. Literature Review

Sub-sections 2.1, 2.2, and 2.3 aim to clarify the variables measured in this research by providing definitions of key terms: foreign language reading anxiety, reading strategies, and reading performance. The subsequent sub-sections (2.4, 2.5, 2.6, and 2.7) review the relationships among these three variables, which lead to the formulation of the research hypotheses.

2.1. Foreign Language Reading Anxiety

Anxiety is "the subjective feeling of tension, apprehension, nervousness, and worry associated with an arousal of the automatic nervous system" (Spielberger, 1983, as cited in Horwitz, 2010, p. 113). This psychological state is a natural and common occurrence (Shen, 2022) that may arise in all spheres of life. In second language acquisition, it is believed that a low level of anxiety might be beneficial, while a high level could be a cognitive barrier to learners (Krashen, 1982). More specifically, anxiety emerged as a situation specific. Foreign language anxiety (FLA) is "the feeling of tension and apprehension specifically associated with second language contexts, including speaking, listening, and learning" (McIntyre & Gardner, 1994, p. 284). The FLA definition has specified situation-specific anxiety as anxiety in oral-aural skills and learning environments in general, but it is still not considered in literacy skills.

In the reading domain, Saito and colleagues (1999) were the first to investigate anxiety associated with reading in a second language. The authors defined foreign language reading anxiety (FLRA) as "a phenomenon related to, but distinct from, general FL anxiety" (Saito et al.,1999. p. 211). It means FLRA is a unique form of anxiety. Furthermore, Saito et al. (1999) ascertained that FLRA is caused by genuine challenges in information processing, other than from reading difficulties originating from anxiety reactions. In the current study, FLRA is defined as a specific form of anxiety linked to cognitive information processing. This anxiety is a subjective sensation where worry plays a dominant role.

2.2. Reading Strategies

Reading strategies are "deliberate, goal-directed attempts to control and modify the

reader's efforts to decode text, understand words, and construct meanings of text" (Afflerbach et al., 2008, p. 368). It is, implicitly, the readers' intentional, goal-oriented efforts to manage their decoding, understanding and constructing text meanings which lead to a specifically strategic action. Various classifications have been made regarding reading strategy typologies, such as top-down and bottom-up models (Goodman, 2014) and metacognitive reading strategies including global, problem-solving, and support strategies (Mokhtari & Reichard, 2002; Mokhtari & Sheorey, 2008). The current research followed Mokhtari and Sheorey's (2002) reading strategy taxonomy as this group of strategies was designed and validated for usage with students of English as a second/foreign language (ESL/EFL) who were also the targeted sample in the present study. However, the research team merely utilized support strategies, which are fundamental tools designed to help readers comprehend text, such as highlighting, underlining, and notetaking (Mokhtari & Sheorey, 2002). This group of strategies are necessary when readers need external aid or single practical strategies for better comprehension (Huo & Cho, 2020). Furthermore, we assume that these strategies play a pivotal role in students engaging actively in reading, recalling text information, better synthesizing information, and improving their critical thinking and assessments.

2.3. Reading Performance

Earlier work did not clearly define the concept of reading performance. Past researchers have shown their inconsistency in defining this concept. They regarded it as reading comprehension (Ghaith, 2020), reading comprehension tests (Fitrisia et al., 2015), and reading comprehension performance (e.g., Halim et al., 2020). For this incongruity, our team proposed a collective definition of reading performance. Based on the definition of reading performance by the Program for International Student Assessment (PISA, 2012), it relates to students' abilities to understand, apply, and re-evaluate written texts to achieve objectives and build knowledge and potential for social engagement. In addition, we depended on Alek et al., (2023) definition that reading performance is "the level of reading comprehension proficiency" gained from a specific task (Abba & Mugizi, 2018). We proposed that reading performance is "readers' effective accomplishment or achievement of reading comprehension activities to reach their reading goals". In terms of performance measurements, there have been various variables. McIntyre and Gardner (1994a) held that the most frequently utilized measure of performance is standardized proficiency tests, while Teimouri et al. (2019) contended that performance should be measured by "GPA, self-perceived performance, course grades, and language tests". In the present research, reading performance was measured by learners' self-perceived performance.

2.4. Impact of Reading Anxiety Factors on Reading Performance

Earlier research outcomes have revealed a dynamic relationship between reading anxiety and reading performance. Reading anxiety levels were found to impede reading performance (Guimba & Alico, 2015). As stated otherwise, there was a negative correlation between the two variables. If readers' anxiety levels increase throughout the act of reading, the lower achievements the readers constitute. Similarly, components such as anxiety encountered while engaging in English reading, confidence in reading, and anxiety experienced when deciphering English script were negatively correlated with reading performance (Kim, 2021). In addition, no significant correlation has been observed between reading anxiety and reading performance (e.g., Hassaskhah & Joghataeian, 2016; Kobayashi, 2016). Kobayashi (2016) found that two anxiety components, "Fear of not remembering reading content" and

"Confidence and enjoyment of reading English," did not impact reading performance. The summed scores of reading anxiety in Hassaskhah and Joghataeian's (2016) study also revealed no effect on reading comprehension. Notwithstanding contributory findings from the existing literature, no studies have researched the impact of other reading anxiety factors, such as linguistic text issues (LTI) and reading topics (RT), on reading performance. Thus, we hypothesize as follows:

H1: Linguistic text issues have an impact on reading performance.

H2: Reading topics have an impact on reading performance.

2.5. Impact of Reading Anxiety Factors on Reading Strategy Use

The literature review shows that the relationship between reading anxiety and reading strategies is malleable. Reading anxiety (RA) was established to be negatively correlated with text feature anxiety, namely unfamiliarity with new words and grammar and long texts (Tsai & Lee, 2018). Regarding the impact of reading anxiety levels, a negative correlation with the utilization of reading strategies was also observed (Tsai & Lee, 2018). Conversely, Mokhtarnia and Ghaffarzadeh (2020) found that these two variables were unrelated. Notably, no statistically significant relationship was found between RA and the subcategories of reading strategies, including support strategies (SUP). Based on these earlier conclusions, we propose the following hypothesis.

H3: Linguistic text issues have an impact on support strategies.

Additionally, the correlation between reading topic anxiety and reading strategies has not been explored. Therefore, we propose a hypothesis as follows:

H4: Reading topics have an impact on support strategies.

2.6. Impact of Reading Strategies on Reading Performance

Receiving instructions in reading strategies and possessing knowledge of their application do not necessarily ensure successful reading performance. The existing literature review has disclosed a weak relationship between reading strategy usage (RSU) and reading performance (Fitrisia et al., 2015). Further, not all reading strategies were reported to be used frequently. For instance, problem-solving strategies (PROB) were more positively correlated with students' reading comprehension performance than other strategies (Ghaith & El-Sanyoura, 2019). This means the more PROB strategies learners use, the higher their reading performance. In contrast, Dardjito (2019) detected no correlation between these two variables. Depending on these findings, our research team suggests the following hypothesis.

H5: Support strategies have an impact on reading performance.

2.7. Mediation of Reading Strategies in the Anxiety-Performance Relationship

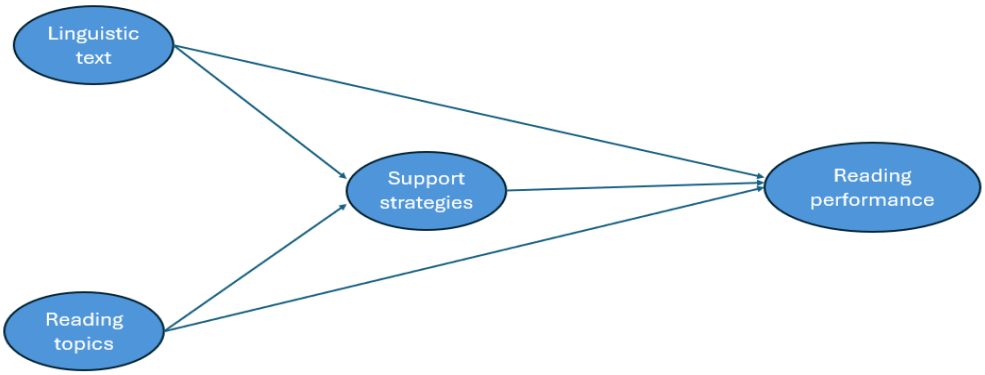
Very few studies have investigated the interplay between reading anxiety, reading performance, and reading strategies. To the author's best knowledge, Ghaith's (2020) study has been, to date, the only one. However, Ghaith (2020) exclusively examined the mediating role of reading anxiety in the relationship between reading strategies and reading performance. In the present study, we propose specific reading anxiety factors (LTI and RT) and RS as a mediator, specifically SUP. We have two following hypotheses:

H6: Linguistic text issues affect reading performance through support strategies.

H7: Reading topics affect reading performance through support strategies.

Figure 1

Proposed Research Model



3. Methodology

3.1. Participants and Data Collection

The researcher contacted an Academic staff member to request the Semester-1 class list. Based on the list, instructors in charge of the targeted classes received an email from the researcher asking their permission to approach students. Emails containing a survey hyperlink were then sent to students majoring in Information Technology, who take up the majority at the research site, which is a leading university in the country's Information and Technology training. A total of 532 students received the survey, and 387 completed it, resulting in 72.7% response rate. The number of respondents exceeded the required 160 samples (Kock & Hadaya, 2018). Among 387 respondents, there were 350 males, 31 females, and 6 students of other gender. In addition, these students had completed their preparational English courses and were studying their specialized majors at the time of the research.

3.2. Measurement Instrument

The authors synthesized and developed the questionnaire items based on the literature review, conceptualized process and validated using Cronbach's Alpha. The questionnaire has three parts. The first part included demographic information such as student gender, level of English proficiency, and reading frequency. The second part contained information on foreign language reading anxiety factors synthesized from previous studies and literature, which led to the adaptation of 11 items. The third part is composed of three items of reading performance. Likert 5 scales, used to describe students' responses about English reading anxiety factors, ranged from 'Strongly disagree' to 'Strongly agree'.

3.3. Data Analysis

Partial least squares-structural equation modelling (PLS-SEM) using SmartPLS version 4.0 software to analyze the collected data. According to Hair et al. (2020), two assessments are required to report the output. The first step is to assess the measurement model. In this step, factor loading should be larger than 0.6, composite reliability should be between 0.7 and 0.95, and the average variance extracted (AVE) should be more than 0.5 to assure convergent validity (Hair et al., 2021). Together with the convergent validity, the discriminant validity can be evaluated using the Fornell and Lacker (1981) or the HTMT proposed by Henseler et al. (2015). The second step is to assess the structural model. This model is evaluated by the VIF values,

and the VIF values should be lower than 5 (Hair et al., 2022). Next, the structural model was assessed using the parametric coefficients and the significance of the R square.

4. Results

4.1. The Profile of the Participants

Table 1

Respondents' Demographic Information

Item	Values	Frequency	Percentage
Gender	Male	350	90.4
	Female	31	8
	Other	6	1.6
Level of English proficiency	Elementary	38	9.8
	Pre-intermediate	55	14.2
	Intermediate	212	54.8
	Upper-intermediate	58	15
	Advanced	24	6.2
Frequency of reading English texts	Never	0	0
	Rarely	52	13.4
	Sometimes	193	49.9
	Often	137	35.4
	Always	5	1.3

Among 387 students, 350 were male students, accounting for 90.4 %, 31 female students (8%), and 6 of other gender, accounting for 1.6%. Many students were at the intermediate level (54.8%) or higher (21.2%), and about 24% were at the elementary and pre-intermediate levels. Regarding the frequency of reading English texts, nearly half of respondents (49.9%) reported that they sometimes read in English. One hundred and thirty-seven participants, accounting for 35.4%, confirmed that they often immerse themselves in English texts. The third rank goes to 13.4% of those who rarely read in English. Five respondents reported that they always read, while the number of respondents who said they never read is 0%.

4.2. Measurement Model Assessment

The measurement model was assessed to establish the construct's reliability and validity. Reliability refers to the consistency of the scale, whereas validity exhibits the correctness of the scale tool. The reliability of each item is assessed by the factor loadings, and the internal consistency is tested by Cronbach's alpha and composition reliability (CR). The measurement validity includes convergent and discriminant validity. Convergent validity measures the correlation between items of the same dimension, detecting the AVE. Discriminant validity measures the correlation between items with different facets using the square root value of AVE (Huang, 2021). The factor loadings were measured to examine items' reliability (Hair Jr et al., 2021), and all factors were above the value of .60. Table 2 presents factor loadings, alpha coefficient, composite reliability (CR), and average variance extracted (AVE). The composite reliability (CR) values are higher than the suggested 0.70, and the average variance extracted (AVE) values are higher than 0.50. Convergent reliability and validity are, therefore, confirmed.

Table 2

Item Loadings, Reliability, and Convergent Validity

Constructs	Items	Loadings	Cα	CR	AVE
Linguistic text issues			**0.763**	**0.849**	**0.586**
LTI1	I am anxious whenever I encounter unknown grammar when reading English.	0.794			
LTI2	I am anxious when I cannot recognize the coherence of the text.	0.776			
LTI3	I am anxious when the ideas expressed in the text are culturally unclear.	0.794			
LTI4	I am anxious when I cannot figure out the meanings of unknown words.	0.693			
Reading topics			**0.741**	**0.838**	**0.564**
RT1	I am anxious when I am not familiar with the topic.	0.724			
RT2	I feel anxious when the title of the text is unfamiliar to me.	0.763			
RT3	I feel anxious when the topic is complicated.	0.798			
RT4	I feel anxious when the topic includes unfamiliar terms	0.716			
Support strategies			**0.678**	**0.825**	**0.613**
SUP1	I underline or circle information in text to help me remember it.	0.838			
SUP2	I take notes while reading to help me understand what I read.	0.822			
SUP3	I read slowly and carefully to make sure I understand what I am reading.	0.679			
Reading performance			**0.88**	**0.926**	**0.806**
RP1	Reading anxiety affects my ability to read accurately.	0.908			
RP2	Reading anxiety affects my ability to read efficiently	0.912			
RP3	Reading anxiety affects my reading grades.	0.873			

4.3. Discriminant Validity

The discriminant validity was evaluated using Fornell and Larker's criteria and Heterotrait-monotrait ratio (HTMT). Fornell and Larker (1981) posited that the square root of Average variance extracted (AVE) should be higher than other constructs' correlated values. According to Henseler et al. (2015), a threshold of 0.90 ensures that no items were overlapped. When assessed with 95% certainty using 5000 bootstrapping, the results of Table 3 show that the square root value of the diagonal AVE is higher than other correlation coefficient values. The Heterotrait-monotrait ratio (HTMT) analysis indicates that all values are lower than 0.90, confirming good discriminant validity (Table 4).

Table 3

Fornell and Lacker's Criterion

	LTI	RT	SUP	RP
LTI	0.765			
RT	0.459	0.751		
SUP	0.281	0.116	0.783	
RP	0.385	0.347	0.234	0.898

Table 4

The Heterotrait-Monotrait Ratio

	LTI	RT	SUP	RP
LTI				
RT	0.617			
SUP	0.389	0.163		
RP	0.470	0.427	0.301	

Model fit was used to examine whether the hypothesized model fits the data collected from the study's respondents. If the standardized root mean square residual (SRMR) value is less than 0.8, it is considered a good fit (Hair & Alamer, 2022). The output table shows that the estimated model achieves the model fit measure with an SRMR value of 0.074. Hence, the outputs demonstrate that the complete data set achieved construct validity, reliability and discriminant validity (Table 5).

Table 5

Standardized Root Mean Square Residual Values

	Saturated model	Estimated model
SRMR	0.074	0.074
D_ULS	0.570	0.570
d_G	0.174	0.174
Chi-square	678.743	678.743
NFI	0.786	0.786

4.4. Structural Model Assessment

After the measurement model's reliability and validity was assessed, the structural model was evaluated to determine the predicted values of the construct (Table 6). The variance inflation factor (VIF) was analyzed for multicollinearity. All the tested VIF values of the structural model were less than 2, which is lower than the threshold of 5, as Hair et al. (2021) proposed, confirming no collinearity among the predictor constructs.

Table 6

Hypotheses Results

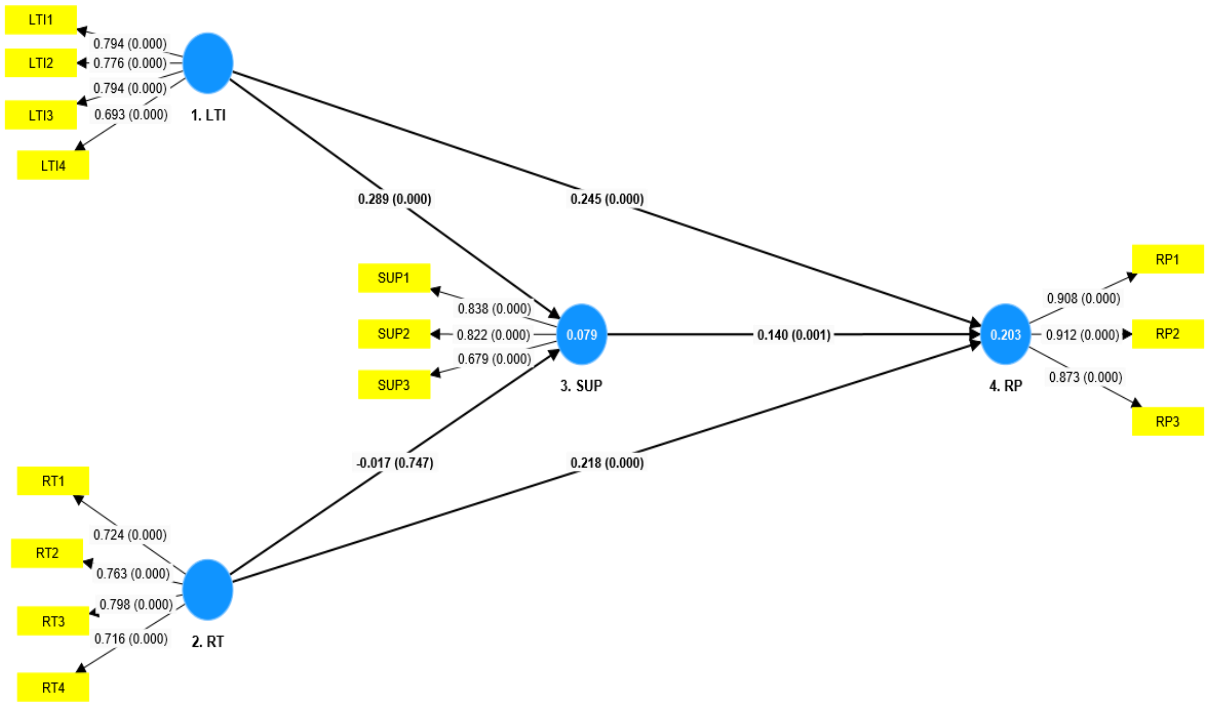
Hypothesis	Relationship	Coefficient	p-value	Results
H1	LTI ->RP	0.245	0.000	Supported
H2	RT -> RP	0.218	0.000	Supported
H3	LTI ->SUP	0.289	0.000	Supported

H4	RT ->SUP	-0.017	**0.747**	**Rejected**
H5	SUP ->RP	0.140	0.001	Supported
H6	LTI ->SUP -> RP	0.040	0.004	Supported
H7	RT ->SUP -> RP	-0.002	**0.758**	**Rejected**

The computation results listed in Table 6 show that five hypotheses were supported, and two hypotheses were rejected. The outcomes of the path analysis presented that linguistic text issues influenced reading performance (β = 0.245, p < 0.000) and supporting strategies significantly (β =0.289; p<0.000). Therefore, H1 and H3 are supported. The results also acknowledge the indirect influence of linguistic text issues via supporting strategies on reading performance (β =0.040; p<0.01); thus, H6 is accepted. There are positive and statistically direct significant effects of reading topics and supporting strategies on reading performance (β = 0.218; p<0.000 and β = 0.140; p<0.01). Therefore, H2 and H5 are supported. However, reading topics have no statistically significant influence on supporting strategies (β =-0.017; p> 0.05), and reading topics have no indirect influence on reading performance via supporting strategies (β =-0.002; p>0.05). Hence, H4 and H7 are rejected. The PLS-SEM path analysis model is demonstrated in Figure 2.

Figure 2

Path Analysis Results



According to Hair et al. (2022), the R*2* values of 0 to .10, .11 to .30, .30 to .50, and higher than .50 indicate weak, modest, moderate, and strong explanatory power. The R*2* in the outcomes of the path analysis results is 0.203, meaning that the model has modest explanatory power and accounts for 20.3% of the variation in the reading performance.

5. Discussion

This section aims to discuss the principal findings related to the impacts of reading anxiety factors (LTI & RT) on reading performance, as well as the mediating role of support

strategies in the anxiety-performance relationship. One of the most striking findings is that reading anxiety caused by linguistic text issues (LTI) such as unknown grammar, unfamiliar coherence of text, unclear ideas expressed, and unknown words positively impact both self-perceived reading performance, with a coefficient of 24.5%, and students' usage of support strategies, with a coefficient of 28.8%. This means the more anxious students felt due to linguistic text issues, the higher their reading performance and the higher their use of support strategies. The result proved that anxiety is not always detrimental to performance. The finding also supported Krashen's (1982) theory that low anxiety could facilitate learners' performance. Compared with the existing empirical studies that found a negative anxiety-performance relationship and no connection between the two variables (e.g., Kim, 2021; Kobayashi, 2016), our finding contributes to the current body of literature. Likewise, our findings are also distinguishable from studies by Tsai and Lee (2018) and Mokhtarnia and Ghaffarzadeh (2020) that established a negative correlation or no relationship between reading anxiety factors and the use of reading strategies.

The second result highlights that reading topics (RT) also positively impact reading performance (RP), with a coefficient of 21.8%. Like anxiety about linguistic text issues, reading topic anxiety is a facilitative factor in relation to reading performance as well. However, compared with the LTI-RP impact (β= 0.245, equivalent to 24.5%), the coefficient magnitude of RT is smaller. As such, complicated and unfamiliar reading topics play a smaller role than linguistics text issues in the anxiety-performance relationship. Referring to the context of the current research, the lack of prior knowledge related to the reading topic could not trouble readers. The anxiety originating from the shortage of background knowledge even facilitates readers' performance. Conversely, the quantitative data analysis revealed insufficient information available to explain how RT influences students' usage of support strategies. This might be explained by the fact that unfamiliarity with reading topics did not affect readers' usage of support reading strategies. Our finding supports Mokhtarnia and Ghaffarzadeh's (2020) result identifying no statistically significant relationship between reading anxiety in general and subcategories of reading strategies, including SUP. However, our contribution to the existing literature is that we clearly pointed out that a specific reading anxiety factor, specifically reading topic anxiety, could not explain the SUP usage. In contrast, our result contradicts Tsai and Lee's (2018) outcome, which uncovered a negative correlation between RA levels and reading strategy usage.

Our third finding is a positive impact of SUP usage on reading performance, with a coefficient of 14%. The increasing use of underlining or circling information, taking notes, and adjusting the reading speed leads to higher reading performance. Nevertheless, the impact size is only 14%. This could be explained by the fact that students might use other reading strategies more frequently than SUP. In the research site, students more frequently engage in computer-based finals and electronic reading practices than paper-based ones. The computerized exams were set with anti-cheating measures as default, including any techniques such as underlining, highlighting, circling, and marking. While these techniques can still be implemented with electronic reading practices, they are not observed as frequently. This might be the reason for the less frequent use of these SUP strategies. In contrast to the discussed techniques, taking notes on scrap paper distributed by proctors is still observed during the exams, but not by many students. The third finding of the present study is aligned with the results of Fitrisia et al. (2015), who also found a weak positive relationship between reading strategy usage and reading performance. Nonetheless, Fitrisia et al. (2015) lacked a deep analysis of the influence of a specific reading strategy type on reading performance. Compared with Ghaith and El-

Sanyoura's (2019) results that found a positive impact of PROB on RP, our finding contributes to the literature by revealing that increasing SUP leads to higher reading performance.

The last remarkable finding in our study is that SUP positively mediated the relationship between linguistic text issues (LTI) and reading performance (RP), but the effect size is only 0.04%. In this case, where the mediation is present, and the direct effect (between LTI and RP) is also significant and positive (β=0.32, $p<.05$), the type of mediation is complementary mediation, according to Zhao et al. (2010). More precisely, anxiety about linguistic text issues impacts reading performance through the usage of support strategies. Concerning the mediation of SUP in the relationship between reading topic anxiety and reading performance, the mediation type is direct-only non-mediation as RT impacts RP directly, but the indirect effect between RT, SUP, and RP is insignificant, according to Zhao et al. (2010). In comparison with the existing literature, our findings are the first to explore the mediating role of reading strategies, particularly support strategies, in the relationship between reading anxiety factors and reading performance.

6. Implications

The research findings on the impacts of reading anxiety on reading performance, as well as the mediating role of support strategies (SUP) in the anxiety-performance relationship, serve as the foundation for teaching practices. First, in the context of this research, reading anxiety factors, namely linguistic text issues and reading topics, are not deliberating contributors to readers' performance. Therefore, attention to these issues is not of much concern. Instead, the integration of SUP into the classroom should be increasingly prioritized. However, as discussed in the previous part, relying solely on SUP is not beneficial for computerized reading assessments. Thus, instruction in additional strategies that can help readers solve problems while reading should be implemented. Suggested strategies include problem-solving strategies such as rereading, visualizing information, guessing the meaning of unknown words, and the like, as well as global reading strategies like overviewing, previewing, and using graphic organizers, among others.

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