Exploring Writing Anxiety and Strategies Through the Perspective of Social Cognitive Theory

Nur Adibah Binti Zamri[1], Azrin Raimi Bin Ahmad[2*], Siti Hajar Aisyah Binti Azhari[3], Eliyas Bin Sulaiman Mohandas[4], Nurnadiah Binti Zamri[5], Noor Hanim Rahmat[6]

[1, 2, 4, 6]Akademi Pengajian Bahasa, Universiti Teknologi MARA,Shah Alam, Malaysia

[3]Akademi Pengajian Bahasa, Universiti Teknologi MARA,Pasir Gudang, Malaysia

[5]Faculty of Informatics and Computing, Universiti Sultan Zainal Abidin, Malaysia

***Corresponding Author**

DOI: https://dx.doi.org/10.47772/IJRISS.2026.10200384

Received: 19 February 2026; Accepted: 23 February 2026; Published: 12 March 2026

ABSTRACT

Writing anxiety is a common barrier to effective academic performance. This type of anxiety often reduces learners' confidence and their willingness to participate in writing activities. Therefore, this study investigates the relationship between writing anxiety and strategies across behavioural, personal and environmental factors using Bandura's Social Cognitive Theory as a framework. A quantitative survey was conducted using a structured questionnaire with a 46-item Likert scale instrument adapted from Bandura (1977), Cheng (2004) and Raoofi et. al. (2017). This questionnaire has been randomly distributed to 223 diploma and degree students. The results revealed that students have moderate levels of cognitive and somatic anxiety, whereas avoidance behaviours appeared less prominent. Other than that, learners also showed frequent use of metacognitive, effort regulation, and cognitive strategies, supported by social and affective support. There was a significant relationship between personal and environmental factors, but no correlation with behavioural factors. Inferential tests showed a statistically significant difference in behaviour and personal strategies across levels of study, but no differences were found across courses. These results suggest that learners' writing strategies, particularly self-regulation and peer support, play a crucial role in mitigating writing anxiety. The study underscores the importance of integrating strategy-based interventions and supportive environments to enhance writing confidence and performance.

Keywords: Writing Anxiety, Writing Strategies, Social Cognitive Theory

INTRODUCTION

Background of Study

It has long been confirmed that, in academic environments, writing anxiety is a dominant psychological barrier that affects learners' ability to write effective piece of work. Challenges related to writing performance have become more visible, as tertiary education increasingly emphasizes written assignments, making it crucial for researchers to get some insights why learners struggle and how they adapt. Writing anxiety is defined as the cognitive, emotional, and behavioural responses that hinder an individual's ability to perform written task confidently. It remains to be an extensive problem affecting learners across levels and domains (Patty, 2025). In fact, current studies establish that through cognitive anxiety (negative perceptions and evaluation anxiety), avoidance behaviour (withdrawing from writing tasks), and somatic anxiety (negative beliefs and evaluation fears), writing anxiety emerges and it can disrupt learners' academic involvement and achievement.

Writing anxiety and writing strategies are the essential constructs in this research and they remain a core focus in writing research. Writing anxiety - stemming from perceived linguistic insufficiency, anxiety of judgement, or undesirable past writing experiences - is defined as the emotional distress experienced throughout writing

tasks (Yan, 2024; Jasman et al., 2023). On the other hand, writing strategies is defined as the metacognitive, cognitive, social and affective techniques that students use to design, evaluate, refine, and manage their writing performance (Jasman et al., 2025). Learners benefit from these strategies in reducing writing anxiety, increasing self-efficacy, and supporting their ability to approach writing as something structured and manageable process. Recent studies also demonstrate that when supported by self-efficacy, metacognitive strategies, for example planning and monitoring, help reduce writing anxiety (Shen & Tao, 2024).

Although the substantial body of research on writing anxiety, the topic continues highly suitable today because the academic writing realm continues to grow. New cognitive and affective pressures for learners emerged due to the rise of AI-assisted writing tools and post-pandemic learning - increased in digital writing demands. Recent research findings confirm that dynamics learning environments, digital literacy barriers, and increased performance pressure for academic performance are the elements that can influence learners' writing anxiety and it prevails across tertiary learners (Mubofu & Kitali, 2024; de Vicente Yagüe Jara et al., 2023). Additionally, writing is, increasingly, framed by scholars as a behaviour influenced by mental perceptions and environmental impacts, making it no longer interpreted as only a linguistic task. This is closely aligned with Bandura's Social Cognitive Theory. Thus, exploring writing anxiety and writing strategies through this theoretical perspective remains both sensible and essential to comprehend how personal attributes, behaviours, and learning environments jointly affect writing outcomes.

Statement of Problem

Current study persistently demonstrates that learners' cognitive, emotional, and behavioural engagement with academic writing tasks are consistently affected by writing anxiety that remains a stubborn challenge. Researchers pointed that writing anxiety emerges through somatic, cognitive, and avoidance reactions, which compromise students' capability to produce quality compositions (Patty, 2025). Concurrently, studies also show that metacognitive, cognitive, social and affective strategies, which are the writing strategies, play an important role in assisting learners manage their writing processes and lower anxiety levels (Jasman et al., 2025). Nevertheless, learners still face obstacles to cope with their writing anxiety effectively due to gaps in selfefficacy, limited awareness of strategic writing processes, and inadequate environmental support, regardless of being granted access to several writing strategies.

A thorough review into current studies unfolds a few crucial issues related to the constructs in this paper. For example, due to the increased academic performance pressure, digital writing demands, and anxiety of evaluation in hybrid or technology-integrated classrooms, learners are facing continuous intense writing anxiety. New anxieties, linked to inner-confidence, linguistic competency, and overdependence on tools, have been introduced by the AI-assisted writing contexts despite providing support (Shen & Tao, 2024). Additionally, environmental factors', that predominantly influence writing confidence and performance, presence are also noticeable as learners often experience insufficient instructional guidance, inconsistent feedback quality, and varying levels of peer support (Jasman et al., 2025). These problems are in accordance with the factors underscored in Social Cognitive Theory: personal factors (self-efficacy, emotions), behavioural patterns (anxiety responses), and environmental influences (peer and instructor support). The complexity in understanding learners' writing experiences and the strategies they choose to employ are sparked by the interaction among the factors.

These observed challenges suggest to deeper challenges that justify the necessity of the present study. Despite existing studies recognize the merit of writing anxiety and writing strategies, few have examined these constructs through an integrated theoretical perspective; instead, many research examined them in isolation. Recent scholars have proposed for future researchers to explore how writing experiences are influenced by the interaction of the three components (cognitive, behavioural, and environmental components), and strategically promoted the employment of Social Cognitive Theory to examine writing-related challenges more holistically (Jasman et al., 2025). Furthermore, Shen and Tao (2024) highlight the urge for more studies that examine how strategies and self-efficacy synergized to mediate writing anxiety, especially within evolving educational contexts such as digital or AI-assisted writing environments. This catalyzing research direction points out a current gap: the lack of studies that concurrently study writing anxiety and writing strategies across personal, behavioural and environmental dimensions.

Given these concerns, the issue, this research tackles, is the restricted understanding of how students' writing anxiety and writing strategy employment function within the three-dimensional interaction suggested by Social Cognitive Theory. Understanding these correlations is important because students' writing difficulties arise from the interaction of psychological states, learned behaviours, and contextual demands, and they do not emerge in isolation. Thus, this study is crucial to examine how learners view these elements and how they interrelate, establishing a base for the research objectives and research questions that proceed.

Objective of the Study and Research Questions

This study is done to explore writing anxiety and strategies using social cognitive theory. Specifically, this study is done to answer the following questions;

- How do learners perceive their behaviour in writing?
- How do learners perceive personal factors in writing?
- How do learners perceive environmental factors in writing?
- Is there a relationship between all the factors in writing?

(H1- There is no relationship between all factors in writing)

Is there a significant difference between all factors in writing across the course?

(H2- There is no significant difference between all factors in writing across the course)

Is there a significant difference between all factors in writing across levels of study?

(H3- There is no significant difference in all factors in writing across the levels of study)

LITERATURE REVIEW

Theoretical Framework of the Study

Classical Conditioning (Pavlov, 1927) and writing anxiety (Cheng 2004)

Classical conditioning (Pavlov, 1927) is a learning process where a neutral stimulus becomes associated with a meaningful stimulus through repeated pairing. Pavlov showed that dogs learned to salivate at the sound of a bell (neutral) when it was paired with food (meaningful). Later researchers applied Pavlov's concept to study the development of fear. Watson and Rayner (1920) showed that fear can develop when a neutral stimulus is paired with a frightening experience. Eventually, that stimulus triggers fear on its own. This explains how phobias and anxiety responses are formed from past experiences.

Cheng (2004) explains the development of writing anxiety through classical conditioning theory. When writing (meaningful) is repeatedly paired with negative experiences (neutral) such as criticism, low grades, or failure, it can become associated with fear and anxiety. Over time, writing alone can trigger stress even in the absence of negative feedback. As a result, students may procrastinate, avoid writing tasks, or struggle to express their ideas clearly. Cheng's concept of writing anxiety reflects this conditioned response, where past learning experiences shape emotional reactions to writing tasks.

Writing Strategies

Raoofi et. al. (2017b) defined L2 writing strategies as deliberate, goal-oriented acts that learners utilize to organize, produce, regulate, and assess their writing. Five primary categories of techniques are delineated and scientifically analysed:

Metacognitive strategies

Metacognitive strategies pertain to the regulation of the writing process. These tactics encompass writing planning, organising thoughts before to drafting, monitoring writing progress, and revising texts to guarantee content completeness and coherence.

Cognitive strategies

Cognitive strategies entail the explicit manipulation of language and content. Examples encompass concept generation, argument elaboration, utilisation of suitable vocabulary and grammatical structures, information summarisation, and revision of sentence-level elements. The research emphasises that skilled writers demonstrate a more frequent and successful application of these tactics, underscoring their significance in converting ideas into written form.

Affective Strategies

Affective strategies are employed to regulate emotions, attitudes, and motivation associated with writing. These encompass alleviating worry, sustaining confidence, and motivating oneself to persevere in writing endeavours. The results indicate that those with superior writing proficiency possess enhanced emotional regulation, facilitating more fluent and sustained writing performance.

Effort regulation strategies

Effort regulation strategies denote learners' capacity to maintain focus, perseverance, and dedication in the face of challenges, monotony, or diversions. This category was identified as the predominant strategy group utilised in the investigation. The authors contend that effort management is a crucial element of effective L2 writing, as it allows learners to maintain engagement during challenging writing assignments.

Social strategies

Social strategies entail soliciting support or feedback from individuals, including classmates or professors, and engaging in collaborative discussions around writing challenges. Despite the implementation of these tactics by participants, they were reported seldom and did not markedly distinguish across authors of varying ability levels. The authors propose that elements outside skill, such as personality characteristics or learning culture, may affect the utilisation of social strategies.

Successful L2 writing is defined by a purposeful amalgamation of self-regulation, cognitive engagement, emotional control, and persistent effort, with metacognitive and effort management tactics being especially significant in achieving higher levels of writing skill.

Social Cognitive Theory

Social Cognitive Theory (SCT), proposed by Bandura (1977), highlights the reciprocal interaction between personal factors, behaviour and environment. These are important in shaping human learning and performance. This framework is a useful lens to help learners understand how they experience anxiety and what strategies or methods they use to cope with the demands of academic writing. According to Bandura's triadic reciprocal determination, writing performance is not merely from individual skill or ability, but it is from the dynamic interaction of internal or personal beliefs, observable behaviours and environmental conditions.

The first factor is personal factors, including self-efficacy, motivation, and emotional regulation. According to Bandura (1997), self-efficacy becomes a central determinant of performance. Therefore, it affects both the learners' efforts to commit and persistence when facing difficulties. In the study conducted by Cheng (2004), in writing contexts, low self-efficacy is frequently associated with heightened anxiety. On the other hand, Raoofi et al. (2017) highlighted that learners who apply metacognitive strategies usually experience lower anxiety levels and greater confidence.

The second factor is behavioural factors. This refers to the observable actions learners take when engaged in writing tasks. In writing contexts, anxiety manifests through three dimensions in shaping learners' performance. These three dimensions are cognitive, somatic and avoidance behaviours (Cheng, 2004). However, from Social Cognitive Theory (SCT), these behaviours are shaped by personal beliefs such as fear of negative evaluation and also environmental pressures, such as strict guidelines. Therefore, applying those behavioural approaches can reduce anxiety and strengthen resilience.

The last factor is environmental factors. This factor includes social and contextual factors like peer support, teacher feedback and classroom environment. According to Raoofi et al. (2017), anxiety can be reduced, and writing quality can be improved by implementing positive environments such as peer review and group discussions. In contrast, unsupportive environments can intensify anxiety and reinforce avoidance behaviours.

Past Studies

Past Studies on Writing Anxiety

Several studies were carried out to examine how writing anxiety forms, how it emerges, and how it affects learners' writing performance across academic settings. These studies normally examine multiple scopes of anxiety, such as cognitive anxiety, somatic effects, and avoidance behaviours, while also exploring the pedagogical or psychological aspects that contribute to writing challenges.

Patty (2025), in a study, examined two main issues: the different types of writing anxiety experienced by learners, and the factors that contribute to these anxieties, as well as the coping strategies employed. This research adopted a library research methodology where literature published between 2018 and 2024 was scrutinised. Although secondary data were used, the study reviewed a spectrum of empirical evidence to understand somatic, cognitive, and avoidance anxieties and the classroom practices that spark them. Results showed that somatic anxiety often emerges as physical distress, cognitive anxiety arises through negative thought patterns, and avoidance behaviours emerge in response to anxiety of evaluation. The study also found that by employing strategies such as routine writing practice, cognitive reframing, and environmental changes, learners are able to manage writing anxiety before it is impacted by negative writing experiences and problematic instructional approaches. The study signals the need for researchers to employ multi-faceted strategies to facilitate anxious writers, demonstrating the complexity and ongoing relevance of writing anxiety in academic contexts.

Likewise, Shen and Tao (2024) in a study explored the correlation between metacognitive strategies and writing strategies, and the facilitating role of AI-based writing self-efficacy in writing performance. The study employed a quantitative research design that included 193 respondents, employing a survey data collection procedure, assessing metacognitive strategy use, AI-based writing self-efficacy, and writing anxiety. Structural equation modelling (SEM) was adopted and resulted in the discovery that metacognitive strategies significantly reduce writing anxiety. The said strategies were particularly planning, monitoring, and evaluating.

Furthermore, AI-based writing self-efficacy was found to mediate, either fully or partially, the relationship between strategy employment and anxiety, suggesting that learners who are confident that they can effectively utilise AI tools displayed lower levels of anxiety. The implications underscore the importance of reinforcing learners' self-efficacy in both conventional and technology-enhanced writing settings, as well as the need for strategic instruction that facilitates the growth of strategic writing skills.

Mubofu and Kitali (2024) conducted a relevant study investigating the causes of research writing anxiety among undergraduate students and the reduction strategies perceived as effective. The study employed a descriptive research design, and 168 respondents were chosen as the sample. The data were recorded using a questionnaire survey and were later analysed using SPSS. Results depicted that the key factors to writing anxiety are insufficient research writing skills, unfamiliarity with academic conventions, and a limited time frame. Dedicating more time to writing, selecting supportive supervisors, and providing institutional writing workshops are among the effective reduction strategies introduced by this study. The study also emphasises the need for tertiary education providers to strategise interventions that tackle both skill-based and emotional aspects of writing anxiety, particularly in research-focused courses.

To sum up, previous research jointly signals that writing anxiety is a multifaceted phenomenon shaped by personal beliefs, cognitive patterns, and environmental conditions. They prove that instructional practices, evaluation anxiety, and learners' self-efficacy levels are the aspects that reinforce anxiety, and it does not only stem from linguistic challenges. These are closely in accordance with the focus of the present study, writing anxiety viewed through Social Cognitive Theory, where personal, behavioural and environmental factors interact. The current study explores how anxiety and writing strategies work at the same time within Bandura's triadic reciprocal framework, extending the recommendations made by past researchers that there is a need for more integrative and theory-driven examinations of writing anxiety. Hence, the study responds to the call for papers that connect anxiety, strategy use, and learning environments in an integrated model.

Past Studies on Writing Strategies

In order to investigate how learners use writing strategies to improve their performance, manage the writing processes, and adapt to writing-related challenges such as anxiety, self-efficacy issues, and lack of linguistic competence, much research has been conducted. Most of these studies examine metacognitive, cognitive, social, and affective strategies, highlighting how strategic writing behaviour is closely related to students' confidence, motivation and overall writing success.

Jasman et al. (2025) conducted a study to investigate how university students employ writing strategies to facilitate academic writing, and how Social Cognitive Theory aspects (self-efficacy, behaviour, and environment) influence students' writing progress. This quantitative study involved 177 diploma students as participants, all of whom completed questionnaires adapted from the Writing Strategies Inventory, a validated instrument consisting of seven strategy-related sections. Results indicated that students who reported having better focus, greater writing confidence, and enhanced selfregulation are the ones who possess stronger writing self-efficacy and use metacognitive and cognitive strategies. The study also highlighted that social strategies - peer modelling and collaborative writing – further facilitated motivation and specific skill growth. The findings suggest that the urge for writing instruction that integrates self-efficacy and social strategies principles is crucial now, as strategic writing behaviour is not solely skill-based.

Another study was conducted by Sagredo-Ortiz and Kloss (2025), examining the types of academic writing strategies used by tertiary learners across various fields of study, and the development and validation of an instrument to measure these strategies. The study includes 290 students from various fields of study in a Chilean university, employing a Likert-scale instrument constructed through an inclusive review of global writing-strategy measurement tools. Results highlighted that mastery of multiple strategy natures, including cognitive and metacognitive operations, along with discipline-based academic norms, are the requirement of academic writing. The conclusion is that writing strategies consistently support deeper learning and more effective text composition, even though the profiles differ across disciplines. The implications of the study highlight the need of preparing students with multiple academic writing strategies suitable for their disciplinary needs.

In summary, effective writing strategies are essential to academic success and are influenced by learners' mental processes, disciplinary expectations, and learning contexts, as shown in both studies. While Sagredo-Ortiz and Kloss (2025) highlight how strategic employment differs across academic disciplines, it still remains important for text composition. Jasman et al. (2025) indicate how writing strategies interact with self-efficacy and social influences to support writing development. Jointly, these studies are in accordance with the present study's emphasis on exploring writing strategies through the lens of Social Cognitive Theory, where behaviour, personal beliefs, and environmental settings interplay to shape students' strategic writing actions. The current study, unlike past research that examines either disciplinary or socio-cognitive aspects in isolation, extends this comprehension by examining how writing strategies interact with writing anxiety across behavioural, personal, and environmental factors.

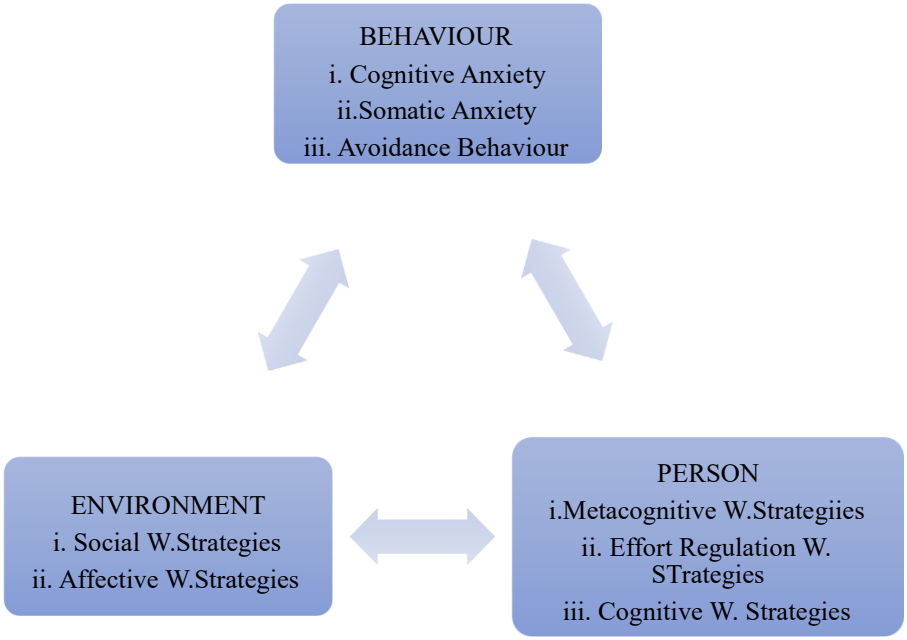
Conceptual Framework of the Study

Writing is a process not many would like to undergo. It can be laborious and sometimes frightening to some. This is because sometimes this laborious process ends with non-positive results, and the writer begins his/her fear writing. So, writers fear both the process and the end result of writing (Rahmat, 2022). This study is anchored

on the social cognitive theory by Bandura (1977), which states that learning depends on three factors such as behaviour, person and the environment.

The context of this study is writing anxiety and writing strategies. The factors in the social cognitive theory are used as variables in this study. The variable 'behaviour' is supported by Cheng's writing anxiety constructs of (i) cognitive, (ii) somatic and (iii) avoidance behaviour. Next, the variable 'person' is supported by constructs for writing strategies by Raoofi et al. (2017), such as (i) metacognitive, (ii) effort regulation and cognitive. Lastly, the variable 'environment' is a supported construct for writing strategies by Raoofi et al. (2017), such as (i) social and (ii) affective. Additionally, this study explores whether there is a relationship among all factors.

Figure 1- Conceptual Framework- Exploring Writing Anxiety and Strategies through the Social Cognitive Theory



METHODOLOGY

This quantitative study is done to explore writing anxiety and strategies using the social cognitive theory. A convenient sample of 223 participants responded to the survey. The instrument used is a 5-point Likert-scale survey and is rooted in Bandura (1977), Cheng (2004) and Raoofi et al. (2017) to reveal the variables in Table 2 below. The categories used for the Likert scale: 1 is for Strongly Disagree, 2 is for Disagree, 3 is for Undecided, 4 is for Agree, and 5 is for Strongly Agree.

Table 1- Distribution of Items in the Survey

SECT	VARIABLE	VARIABLE	CONSTRUCTS	No of Items	Tot	Cronbach Alpha
B	BEHAVIOUR	Writing Anxiety (Cheng, 2004)	Cognitive	8	22	.888
			Somatic	7		
			Avoidance Behaviour	7		
C	PERSON	Writing Strategies (Raoofi, et.al., 2017)	Metacognitive	7	17	.922

			Effort Regulation	4		
			Cognitive	6		
D	ENVIRONMENT		Social	4	7	.826
			Affective	3		
			Total		46	.883

The survey comprised 46 items, and the distribution of survey items is presented in Table 1. In addition to a demographic questionnaire, the survey incorporated two established instruments. It is based on Bandura's (1977) social cognitive theory, which emphasises that learning arises from the interaction of behavioural, personal, and environmental factors. In Section B, writing anxiety was measured using items adapted from Cheng (2004), assessing participants' behaviour across cognitive (8 items), somatic (7 items) and avoidance behaviour (7 items). In Section C, writing strategies were assessed by adapting from Raoofi et. al. (2017) to examine the participants' metacognitive (7 items), effort regulation (4 items) and cognitive (6 items). Lastly, Section D analysed environmental factors in writing, which are social (4 items) and affective (3 items), also by adapting Raoofi et. al. (2017).

Table 2- Reliability Levels, Cronbach's Alpha Ranges, and Their Interpretations

Reliability Level	Cronbach's Alpha range	Interpretation
Excellent	0.9 and above	Indicates very high internal consistency
Good	0.80-0.89	Reflects strong internal consistency
Acceptable	0.70-0.79	Indicates acceptable internal consistency
Questionable	0.60-0.69	Reflects questionable internal consistency
Poor	Below 0.6	Indicates poor internal consistency

In order to determine the internal reliability of the instrument, reliability analysis is one. Table 4 above shows the distribution and interpretation of Cronbach Alpha range. According to Ahmad et al. (2024), Cronbach Alpha scores between 0.7 to 0.9 are considered acceptable to excellent.

Table 2 also shows the reliability of the survey. The analysis shows a Cronbach alpha of .88 for Behaviour, .922 for Person, and .826 for Environment. The overall Cronbach alpha for all 46 items is .883, thus, revealing a good reliability of the instrument chosen/used. Further analysis using SPSS is done to present findings to answer the research questions for this study.

FINDINGS

Demographic Analysis

According to Zienefuss et.al (2021), researchers report demographic data in percentages to establish sample representatives and allow for generalizability to a larger population.

The reporting also provides an overview of participants' characteristics. Percentages offer a clear and understandable picture of the sample makeup.

Table 3- Percentage for Demographic Profile

Question	Demographic Profile	Categories	Percentage (%)
1	Gender	Male	58%
		Female	42%
2	Course	Science & Technology	63%
		Business ,Social Sciences & Humanities	37%
4	Level of Study	Degree	49%
		Diploma	51%

Table 3 delineates the demographic characteristics of the respondents concerning gender, field of study, and academic level. The sample consisted of a greater percentage of male respondents (58%) than female respondents (42%). The majority of respondents were enrolled in Science and Technology programs (63%), while the remaining 37% were from Business, Social Sciences, and Humanities. The distribution of study levels was rather equitable, with 51% of respondents engaged in certificate programs and 49% in degree programs.

Descriptive Statistics

Why is there a need to report the mean and standard deviation? According to Vetter (2017), Mean (M) represents the average, or centre of a data set. Standard deviation (SD) indicates the typical distance of individual observations from the mean, which shows the data's variability or spread. A low SD means the data points are clustered close to the mean, whereas a high. SD indicates they are more spread out. It is good to have a high SD.

Findings for Behaviour

This section presents data to answer research question 1- How do learners perceive their behaviour in writing? In the context of this study, this is measured by (i) cognitive anxiety, (ii) somatic anxiety and (iii) avoidance behaviour.

Table 4- Mean for Cognitive Anxiety (CA)

ITEM	Mean	SD
CAQ1. While writing in English, I feel nervous.	3.15	0.91
CAQ2. While writing English compositions, I feel worried and uneasy if I know they will be evaluated.	3.24	0.89
CAQ3. I worry that my English compositions are a lot worse than others'.	2.76	1.04
CAQ4. If my English composition is to be evaluated, I would worry about getting a very poor grade.	3.73	1.04
CQQ5. I'm afraid that other students would deride my English composition if they read it.	3.24	1.07
CAQ6. I worry at all about what other people would think of my English compositions.	2.81	1.02
CAQ7. I'm afraid of my English composition being chosen as a sample to be discussed in class.	3.24	1.13
CAQ8. I'm afraid at all that my English compositions would be rated as very poor.	2.61	1.02

Table 4 highlights the means for Cognitive Anxiety (CA). The highest mean score is recorded by CAQ4 ("If my English composition is to be evaluated, I would worry about getting a very poor grade") with a mean of 3.73

and SD=1.04. The second-highest means are CAQ2, CAQ5 and CAQ7 with a mean of 3.24, SD=0.89, SD=1.07 and SD=1.13, respectively. These items reflect notable concerts, particularly related to peer judgement and classroom exposure. The moderate mean score is shown in CAQ1 with a mean of 3.15, SD=0.91, highlighting that learners feel nervous while writing in English. Moderate anxiety was observed in *CAQ1* ("I feel nervous while writing in English") with a mean of 3.15 (SD = 0.91), indicating that general nervousness is common. Lastly, CAQ8 ("I'm afraid at all that my English compositions would be rated as very poor.") shows the lowest mean score with a mean of 2.61, SD=1.02.

Table 5- mean for Somatic Anxiety (SA)

ITEM	Mean	SD
SAQ1. I feel my heart pounding when I write English compositions under time constraint.	3.11	0.95
SAQ2. My mind often goes blank when I start to work on an English composition.	3.05	1.00
SAQ3. I tremble or perspire when I write English compositions under time pressure.	3.00	0.97
SAQ4. My thoughts become jumbled when I write English compositions under time constraint.	3.11	0.87
SAQ5. I often feel panic when I write English compositions under time constraint.	3.11	0.85
SAQ6. I freeze up when unexpectedly asked to write English compositions.	2.96	1.00
SAQ7. I usually feel my whole-body rigid and tense when I write English compositions.	2.62	0.94

Table 5 depicts the mean scores for learners' somatic anxiety. The data signals that the highest mean scores were recorded for SAQ1 (I feel my heart pounding when I write English compositions under time constraint), SAQ4 (My thoughts become jumbled when I write English compositions under time constraint.), and SAQ5 (I often feel panic when I write English compositions under time constraint.), each with a mean of 3.11 (SD = 0.95; SD = 0.87; SD = 0.85, respectively). This is followed closely by SAQ2 (My mind often goes blank when I start to work on an English composition.), which recorded a mean of 3.05 (SD = 1.00), while the lowest overall mean is observed for SAQ7 (I usually feel my whole-body rigid and tense when I write English compositions.), with 2.62 (SD = 0.94). Despite the mean scores ranging from 2.62 to 3.11, this spread shows different levels of somatic reactions experienced by learners across different writing contexts, as reflected by the differences in mean and standard deviation values.

Table 6-Mean for Avoidance Behaviour (AB)

ITEM	Mean	SD
ABQ1. I often choose to write down my thoughts in English.	2.56	1.05
ABQ2. I usually do my best to avoid writing English compositions.	2.57	1.08
ABQ3. I do my best to avoid situations in which I have to write in English.	2.44	1.04
ABQ4. Unless I have no choice, I would not use English to write composition.	2.39	0.99
ABQ5. I would do my best to excuse myself if asked to write English compositions.	2.42	1.10
ABQ6. I usually seek every possible chance to write English compositions outside of class.	2.81	0.95
ABQ7. Whenever possible, I would use English to write compositions.	3.16	0.92

Table 6 presents the mean scores for learners' avoidance behaviour. The highest mean score was recorded for ABQ7 (Whenever possible, I would use English to write compositions.), with a mean of 3.16 (SD = 0.92), followed by ABQ6 (I usually seek every possible chance to write English compositions outside of class), which shows a mean of 2.81 (SD = 0.95). The lowest mean score in the set was observed for ABQ4 (Unless I have no choice, I would not use English to write composition), at 2.39 (SD = 0.99). Overall, the mean scores ranging from 2.39 to 3.16 reflect the ordered ranking of avoidance behaviour across all items based solely on their descriptive values.

Findings for Person

This section presents data to answer Research Question 2: How do learners perceive personal factors in writing? In the context of this study, this is measured by (i) metacognitive, (ii) effort regulation and (iii) cognitive strategies.

Table 7- Mean for METACOGNITIVE (MWS)

ITEM	Mean	SD
MWSQ1 I organize my ideas prior to writing.	3.61	0.77
MWSQ2 I check my spelling.	4.07	0.82
MWSQ3 I check my writing to make sure it is grammatically correct.	4.00	0.81
MWSQ4 I evaluate and re-evaluate the ideas in my essay.	3.88	0.75
MWSQ5 I monitor and evaluate my progress in writing.	3.72	0.86
MWSQ6 I go through the planning stages in my writing.	3.66	0.83
MWSQ7 I go through the revising and editing stages in my writing.	3.78	0.82

Table 7 shows the mean scores for metacognitive strategies in writing. The highest mean score was 4.07 (SD = 0.82) for MWSQ2, which indicates that the participants check their spelling in writing, closely followed by 4.00 (SD = 0.81) for MWSQ3, which suggests that they check the grammar in their writing. The next highest mean scores are 3.88 (SD = 0.75) for MWSQ4 which is critically reviewing the ideas in the essay and 3.78 (SD = 0.82) for MWSQ7 which is refining their essay through revising and editing. Next, the mean score of 3.72 (SD = 0.86) for MWSQ5 indicates that participants examine and assess the development of writing, while 3.66 (SD = 0.83) for MWSQ6 indicates that they carry out the initial planning components of the writing process. The lowest mean score was 3.61 (SD = 0.77) for MWSQ1, indicating that they establish a coherent outline before writing. Overall, this table suggests that while participants are actively monitoring and revising their written output, they place comparatively less emphasis on planning and organisation during the writing process.

Table 8- Mean for EFFORT REGULATION (ERS)

ITEM	Mean	SD
ERSQ1 I write a lot to develop my writing skills.	3.24	0.89
ERSQ2 I often work hard to do well in my writing even if I don't like English writing tasks.	3.59	0.85
ERSQ3 Even if the writing activities are difficult, I don't give up but try to engage in them.	3.84	0.75
ERSQ4 I concentrate as hard as I can when doing a writing task.	3.91	0.76

Table 8 shows the mean scores for effort regulation in writing. The highest mean score was for ERSQ4 (M = 3.91, SD = 0.76), which shows that the participants maintain a high level of focus while completing a writing

task. The next highest mean score is for ERSQ3 (M = 3.84, SD = 0.75,) which is maintaining effort in challenging writing activities rather than abandoning them. Next, the mean score for ERSQ2 (M = 3.59, SD = 0.85) signifies that the participants maintain effort in writing performance, regardless of their personal preference for English writing, while the lowest mean score was for ERSQ1 (M = 3.24, SD = 0.89), in which the participants practice writing consistently to improve their writing skill. From this data, it is understood that the participants show strong effort regulation in terms of maintaining focus and persistence during writing, particularly when faced with challenges, but they may lack routine or habitual practice to systematically improve their writing over time.

Table 9- Mean for COGNITIVE (CWS)

ITEM	Mean	SD
CWSQ1 I use memorized grammatical elements such as singular and plural forms, verb tenses, prefixes and suffixes, etc, in my writing	3.55	0.93
CWSQ2 I put newly memorized vocabulary in my sentences.	3.55	0.85
CWSQ3 In order to generate ideas for my writing, I usually engage myself in brainstorming.	3.68	0.87
CWSQ4 I use different words that have the same meaning.	3.50	0.86
CWSQ5 I use my experiences and knowledge in my writing.	3.97	0.78
CWSQ6 I try to use effective linking words to ensure clear and logical relationship between sentences or paragraphs	3.86	0.76

The mean scores for cognitive strategies in writing are presented in Table 9. The highest score was for CWSQ5 (M = 3.97, SD = 0.78), showing that participants frequently draw ideas from personal experiences and knowledge in their writing. This was followed by CWSQ6 (M = 3.86, SD = 0.76), reflecting the use of linking words for clarity and cohesion. Next, brainstorming ideas (CWSQ3, M = 3.68, SD = 0.87) was moderately employed, while the use of memorised grammar (CWSQ1, M = 3.55, SD = 0.93), new vocabulary (CWSQ2, M = 3.55, SD = 0.85), and synonyms (CWSQ4, M = 3.50, SD = 0.86) were less frequent. Overall, these results suggest that participants rely most heavily on personal knowledge and structural clarity in their writing, while strategies such as vocabulary variation and grammar usage are applied to a lesser extent.

Findins for Environment

This section presents data to answer research question 3- How do learners perceive environmental factors in writing? In the context of this study, this is measured by (i) social and (ii) affective.

Table 10- Mean for SOCIAL (SWS)

ITEM	Mean	SD
SWSQ1 In order to generate ideas for my writing, I usually discuss the writing topic with a friend or classmate.	3.61	0.82
SWSQ2 After revising and editing my essay thoroughly, I ask a friend or my classmate to read and comment on it.	3.41	0.91
SWSQ3 I try to identify friends or classmates whom I can ask for help in my writing.	3.58	0.88
SWSQ4 When I have trouble writing my essay, I try to do it with my classmates or friends.	3.65	0.89

Analysis of **Table 10** indicates that participants predominantly exhibit a favorable disposition towards employing **Social Writing Strategies (SWS)**, especially in the initial and problem-solving phases of writing. The highest mean score was seen for **SWSQ 4** (*M* = 3.65, *SD* = 0.89), suggesting that students are most inclined to pursue collaboration while facing challenges with their writings.

SWSQ 1 (*M* = 3.61, *SD* = 0.82) closely follows, indicating that engaging in discussions with peers is a favored approach for idea generation. In contrast, **SWSQ 2** produced the lowest mean (*M* = 3.41, *SD* = 0.91), indicating that although students pursue peer feedback post-self-revision, they exhibit a diminished dependence on social contact during the final editing stage relative to the brainstorming or drafting stages.

Table 11- Mean for AFFECTIVE (AWS)

ITEM	Mean	SD
AWSQ1I try to write an essay in class with confidence and ease.	3.61	0.80
AWSQ2I try to relax whenever I feel afraid of writing.	3.73	0.86
AWSQ3I encourage myself to write even when I am afraid of making mistakes	3.79	0.81

Analysis of **Table 11** indicates that students exhibit a significant dependence on **Affective Writing Strategies (AWS)** to regulate their emotions throughout the writing process. The highest mean score was recorded for **AWSQ 3** (*M* = 3.79, *SD* = 0.81), signifying that the predominant method is self-encouragement, especially when students encounter the apprehension of making errors. Subsequently, **AWSQ 2** (*M* = 3.73, *SD* = 0.86) indicates that students endeavour to relax when experiencing fear. **AWSQ 1**, pertaining to writing with confidence and ease, garnered the lowest mean score (*M* = 3.61, *SD* = 0.80). This trend indicates that although students may not consistently experience innate confidence (AWSQ 1), they actively employ coping strategies such as self-talk and relaxation to mitigate their writing anxiety (AWSQ 3 and AWSQ 2).

Exploratory Statistics

According to He (2024), correlation is a statistical technique that shows how strongly two variables are related to each other or the degree of association between the two. It's a common tool for describing simple relationships without making a statement about cause and effect. This section presents data to answer research questions on correlation. To determine if there is a significant association in the mean scores between all the factors in writing, data is analysed using SPSS for correlations. Results are presented separately in table 12 below. Findings for the relationship between all the factors in writing This section presents data to answer research question 4- Is there a relationship between all the factors in writing?

(H1- There is no relationship between all factors in writing)

Table 12- Correlation between Social Support and Expectancy Components

		BEHAVIOUR	PERSON	ENVIRONMENT
BEHAVIOUR	Pearson (Correlation	1	-0.36	-0.45
	Sig (2-tailed)		.595	.504
	N	223	223	223

PERSON	Pearson (Correlation	-0.36	1	.600**
	Sig (2-tailed)	.000		<.001
	N	223	223	
ENVIRONMENT	Pearson (Correlation	-0.45	.758**	
	Sig (2-tailed)	.504	<.001	
	N	223	223	223

**Correlation is significant at the 0.01 level (2-tailed)

Table 12 shows there is no association between behaviour and person (r=-0.36) and (p=0.595). There is also no association between environment and behaviour (r=-0.45) and (p=0.504). Nevertheless, there is an association between a person and the environment. Correlation analysis shows that there is a highly significant association between person and environment(r=.600**) and (p=<.001).

According to He (2024), the coefficient is significant at the .05 level, and a positive correlation is measured on a 0.1 to 1.0 scale. Weak positive correlation would be in the range of 0.1 to 0.3, moderate positive correlation from 0.3 to 0.5, and strong positive correlation from 0.5 to 1.0. This means that there is also a strong positive relationship between a person and the environment.

Therefore, the null hypothesis is accepted for (a)behaviour and person and (b) environment and behaviour. The null hypothesis is rejected for person and environment.

Inferential Statistics

According to He (2024), there are three main functions of a T-test and ANOVA. Firstly, T-tests and ANOVA are done to compare means. This test is also done to determine if the average scores (mean) or values of two groups, or one group against a known value, are different enough to be considered statistically meaningful and are not just due to random chance. Secondly, T-test and ANOVA is done to test hypotheses.

Researchers use t-tests to test hypotheses about means, such as whether a new treatment significantly impacts a variable or if there's a difference in performance between two distinct groups. Lastly, T-test and ANOVA are done to identify significant differences.

The output of a t-test provides a p-value (significance value). If this p-value is below a predetermined threshold (often 0.05), it indicates a statistically significant difference, allowing researchers to conclude the populations from which their samples were drawn.

Significant Difference for all factors across courses

This section presents data to answer research question 5-Is there a significant difference between all factors in writing across the course?

(H2- There is no significant difference between all factors in writing across the course)

Table 13- T-test for all factors across courses

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance				95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
BEHAVIOUR	Equal variances assumed	4.823	.029	1.005	221	.158	.316	.07573	.07535	-.07276	.22423
	Equal variances not assumed			1.095	214.125	.137	.275	.07573	.06916	-.06059	.21205
PERSON	Equal variances assumed	4.667	.032	-.478	221	.317	.633	-.03640	.07619	-.18656	.11375
	Equal variances not assumed			-.510	206.067	.305	.611	-.03640	.07138	-.17714	.10433
ENVIRONMENT	Equal variances assumed	3.225	.074	-.682	221	.248	.496	-.05653	.08291	-.21992	.10687
	Equal variances not assumed			-.710	193.725	.239	.479	-.05653	.07967	-.21366	.10061

Table 13 above shows the results for T- test for all factors across courses. A T-test was conducted to examine the effects of all factors on courses. The analysis in Table 13 shows there is no significant difference between behaviour (F=4.823, p=0.316), person (F=4.667, p=0.633) and environment (F=3.255, p=0.496) across courses. Therefore null hypothesis for all factors across courses is accepted.

Significant Difference for all factors across levels of study

This section presents data to answer research question 6- Is there a significant difference between all factors in writing across levels of study?

(H3- There is no significant difference all factors in writing across the levels of study)

Table 14- T-Test for all factors across levels of study

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means							
						Significance				95% Confidence Interval of the Difference	
		F	Sig.	t	df	One-Sided p	Two-Sided p	Mean Difference	Std. Error Difference	Lower	Upper
BEHAVIOUR	Equal variances assumed	1.219	.271	2.105	221	.018	.036	.15220	.07230	.00972	.29468
	Equal variances not assumed			2.109	219.233	.018	.036	.15220	.07218	.00994	.29446
PERSON	Equal variances assumed	.062	.804	2.017	221	.022	.045	.14731	.07303	.00338	.29125
	Equal variances not assumed			2.016	220.396	.022	.045	.14731	.07306	.00333	.29130
ENVIRONMENT	Equal variances assumed	.112	.738	1.285	221	.100	.200	.10274	.07995	-.05483	.26030
	Equal variances not assumed			1.284	220.068	.100	.200	.10274	.07999	-.05491	.26038

Table 14 above shows the results for T- test for all factors across levels of study. A T-test was conducted to examine the effects of all factors on levels of study. The analysis in Table 14 shows there is a significant difference between behaviour (F=1.219, p=0.036) and person (F=0.62, p=0.045) across levels of study. However, there is no significant difference for environment (F=0.112, p=0.200) across levels of study. Therefore, the null hypothesis is rejected for behaviour and person across levels of study, but accepted for environment across levels of study.

CONCLUSION

Summary of Findings and Discussions

This study explored writing anxiety and strategies across behavioural domains using Social Cognitive Theory (Bandura, 1977), focusing on three components: behaviour, personal factors, and environmental factors. Below are the findings of the six research questions related to past studies reviewed in the literature review.

RQ1: How do learners perceive their behaviour in writing?

The results show that learners experience moderate levels of cognitive and somatic anxiety when writing under evaluation, time pressure or fear of judgment. The main patterns were worrying about the results or grades, feeling nervous, and physical tension while writing. These findings align with a study conducted by Patty (2025), where the researcher reported that cognitive and somatic symptoms are the most common signs of writing anxiety. Another study conducted by Cheng (2004), highlighted that students usually experience cognitive anxiety when they worry about their tasks being judged or criticised. However, avoidance behaviour was less dominant in the findings. It shows that students were still trying to complete the writing tasks even though they felt anxious, rather than giving up. This finding is consistent with the study by Mubofu & Kitali (2024), who noted that although students experience anxiety due to high academic expectations, they continue to write.

RQ2: How do learners perceive personal factors in writing?

The findings illustrate that students use metacognitive strategies strongly. This happened when the students wanted to check grammar, evaluate ideas, and revise their drafts. Furthermore, the findings revealed that when students face difficulty with writing tasks and maintain focus, they show high effort regulation. Other than that, cognitive strategies, like using personal knowledge and connecting ideas with linking words, are being applied. These findings align with those of Raoofi et al. (2017b), who identified metacognitive and effort-regulation strategies as strong predictors of writing success among L2 writers. Another study conducted by Shen and Tao (2024) showed that metacognitive strategies can help to ease writing anxiety. This happened when the learners had high confidence in their writing abilities. So this study aligned with the findings of extensive use of planning, monitoring and revising drafts. Moreover, the findings also revealed that learners rely on personal knowledge. This aligns with the study by Jasmin et al. (2025), which found that cognitive engagement and self-regulation are important for achieving effective writing results.

RQ3: How do learners perceive environmental factors in writing?

The findings indicate that learners are too dependent on social support. This is proven by the results that they prefer to discuss the ideas with their friends or work together when having writing difficulties. Other than that, learners also employ affective strategies such as self-encouragement and relaxation to manage emotional pressure. However, learners are less likely to seek feedback from their friends after editing. This suggests that learners value collaboration more in the early and difficult stages compared to the final stage. The findings aligned with the study done by Raoofi et al. (2017), where the researchers stated that discussion among friends and feedback (social strategies) can boost motivation as well as reduce writing anxiety. These results are also consistent with Jasman et al.'s (2025) study. Jasman's study argued the role of peer modelling and collaborative writing within Social Cognitive Theory's environmental dimension. Moreover, as noted by Shen and Tao (2024), relaxation and self-encouragement show how students manage to control their emotions when writing tasks stressfully. Thus, it shows that environmental support is important in helping learners' writing experiences.

RQ4: Is there a relationship between all factors in writing?

The findings revealed that there is a strong positive relationship between personal and environmental factors. However, there is no significant relationship between behaviour (anxiety) and personal factors or behaviour and environmental factors. The strong relationship between personal and environmental factors aligns with Bandura's (1977) notion of reciprocal determinism, which states that personal beliefs and environmental conditions directly influence one another. This is also aligned with Jamen et al. (2025), which highlighted that strategy use (personal factor) is influenced by friends' support and learning environment. However, the lack of

relationship between behaviour and the other two factors is supported by Patty (2025) and Mubofu & Kitali's (2024) studies. Those studies found that writing anxiety occurred due to past negative experiences rather than current surroundings.

RQ5: Is there a significant difference between all factors across courses?

The findings revealed no significant difference between all factors across courses. This supports De Vicente-Yagüe Jara et al.'s (2023) study, where the researchers stated that both cognitive and emotional writing challenges are widespread due to the fact that academic demands are universal. The consistency across disciplines also echoes Patty (2025), who stated that writing anxiety persists regardless of subject area.

RQ6: Is there a significant difference between all factors across levels of study?

The study revealed that there is a significant difference between behaviour and personal factors among different levels of students, but not in environmental factors. This means that degree students may have different levels of anxiety and use different personal strategies compared to diploma level students. However, both groups shared similar views on environmental support, including emotional control and peer interaction. These findings match a study conducted by Shen & Tao (2024), which argued that students who have more experience tend to have more confidence and use better strategies, which affects their anxiety. However, the consistency of environmental strategies among both groups aligns with Raoofi et al.'s (2017) study, which highlighted that all students at different levels need emotional and social support.

Implications and Suggestions for Future Research

Theoretical and Conceptual Implications

This study reinforces the relevance of **Social Cognitive Theory (Bandura, 1977)** in understanding writing anxiety and strategies. The findings of this study show that personal factors, behavioural patterns, and environmental factors affect learners' writing experiences. Section 2.3 highlighted that the conceptual framework is validated by the findings, which show a significant relationship between personal and environmental factors, but weaker associations with behavioural factors. This suggests that researchers can not focus on studying writing anxiety alone, but need to examine it by integrating a triadic model that combines psychological states, observable behaviours and contextual supports. Lastly, this study demonstrates how anxiety and strategies influence one another within Social Cognitive Theory, which can give a fuller picture for future research on academic writing.

Pedagogical Implications

Based on the findings, it can be suggested that writing instructions should support learners' emotions, cognitive and social. Since learners can apply metacognitive and cognitive strategies very well, it is time for teachers to strengthen these through modelling, checklists and guided routines, while also reducing writing anxiety through simple tasks, giving supportive feedback and mindfulness activities. Work on activities together, like group brainstorming and peer feedback give learners ideas and emotional support, and this should be applied across all levels of students. Lastly, with the evolution of digital and AI tools, teachers need to guide learners to use them wisely, ethically and strategically. So that learners would not rely too heavily on AI in their writing, and can write it confidently.

Suggestions for Future Research

This study employed a quantitative research approach to investigate the relationship between writing anxiety and strategies' behavioural, personal and environmental factors using Bandura's Social Cognitive Theory as a framework. Future researchers could employ different approaches, such as the qualitative method, for example, interviews or reflective journals, to collect data, as these approaches may provide deeper insights into learners' experiences of writing strategies and how they cope with them. On the other hand, future researchers could also investigate how digital and AI-assisted writing tools can influence learners' anxiety and self-efficacy. Finally,

comparative studies across different programmes or fields, such as the humanities, science, and technology, could affect writing anxiety and the strategies used by learners differently.

REFERENCES

1. Ahmad, N., Alias, F.A., Hamat, M., & Mohamed, S.A. (2024) Reliability Analysis: Application of Cronbach's Alpha in Research Instruments. SIG: e-L earning@CS, 114-119. https://appspenang.uitm.edu.my/sigcs/
2. Bandura, A. (1977). Social Learning Theory. Englewood Cliffs, NJ: Prentice Hall.
3. Bandura, A. (1997). Self-Efficacy: The Exercise of Control. New York: Freeman.
4. Cheng, Y. S. (2004). A measure of second language writing anxiety: Scale development and preliminary validation. Journal of Second Language Writing, 13, 313-335. https://doi.org/10.1016/j.jslw.2004.07.001
5. Cheng, Y. S. (2004). A measure of second language writing anxiety: Scale development and preliminary validation. Journal of Second Language Writing, 13(4), 313–335.
6. de VicenteYagüe Jara, M. I., García-Guirao, P., JiménezPérez, E. P., & LópezMartínez, O. (2023). Editorial: Reading and writing skills: Cognitive, emotional, creative, and digital approaches. Frontiers in Psychology, 14. https://doi.org/10.3389/fpsyg.2023.1279276
7. He, L. (2024) The Application of SPSS Correlation Analysis in the Study if Precision Teaching of English in Universities. Applied Mathematics and Nonlinear Science, 9(1), 1-13. http://dx.doi.org/10.2478/amns-2024-1371
8. Jasman, N. H., Rohayu, D., Khairol Anuar, N. A., & Mokhtar, M. I. (2025). Exploring academic writing through the social cognitive theory. International Journal of Research and Innovation in Social Science, 9(9), 6694–6707. https://dx.doi.org/10.47772/IJRISS.2025.909000547
9. Mubofu, C., & Kitali, L. (2024). Causes and reduction strategies of research writing anxiety among social science undergraduate students at Mwalimu Nyerere Memorial Academy, Tanzania. East African
10. Journal of Education and Social Sciences, 5(4), 53–60. https://doi.org/10.46606/eajess2024v05i04.0392
11. Patty, J. (2025). What lies beneath writer's block? Exploring the dimensions of writing anxiety. Pattimura University. Retrieved from https://www.researchgate.net/publication/392734879
12. Pavlov, I. (1927). Conditioned reflexes. Oxford University Press
13. Rahmat, N.H. (2022) Learning Group Writing Online: The Case for Cognitive Constructivism. International Journal of Academic Research in Business and Social Sciences, 12(6), 1093-1108. http://dx.doi.org/10.6007/IJARBSS/v12-i6/13879
14. Raoofi, S., Chan, S. H., & Mukundan, J. (2017). Metacognition and second/foreign language learning. English Language Teaching, 10(5), 1–13
15. Raoofi, S., Binandeh, M., & Rahmani, S. (2017b). An investigation into writing strategies and writing proficiency of university students. Journal of Language Teaching and Research, 8(1), 191.
16. Raoofi,S. Miri,A., Gharibi,J. & Malaki, B. (2017) Assessing and Validating a Writing Strategy Scale for Undergraduate Students. Journal of Language Teaching and Research, Vol 8(3), pp 624-633. Retrieved from http://www.academypublication.com/issues2/jltr/vol08/03/23.pdf
17. Sagredo-Ortiz, S., & Kloss, S. (2025). Academic writing strategies in university students from three disciplinary areas: Design and validation of an instrument. Frontiers in Education, 10. https://doi.org/10.3389/feduc.2025.1600497
18. Shen, X., & Tao, Y. (2024). Metacognitive strategies, AI-based writing self-efficacy and writing anxiety in AI-assisted writing contexts: A structural equation modeling analysis. International Journal of TESOL Studies, 7(1), 70–87. https://doi.org/10.58304/ijts.20250105
19. Vetter, T.R. (2017) Descriptive Statistics: Reporting the Answers to the 5 Basic Questions of Who, What, Why, When , Where, and a Sixth, So What? Anesth Analg, 12595), 1797-1802. https://doi.org/10.1213/ane.0000000000002471
20. Watson, J. B., & Rayner, R. (1920). Conditioned emotional reactions. Journal of Experimental Psychology, 3(1), 1–14.
21. Ziegenfuss, J. Y., Casey A. E., Jennifer M. D., Meghan M. J., Thomas E. K, and Marna, C.. (202) Impact of Demographic Survey Questions on Response Rate and Measurement: A Randomized Experiment. Survey Practice 14 (1), https://doi.org/10.29115/SP-2021-0010.