

Article

The Role of Motivation and Anxiety in Writing Strategy Use: Focus on Saudi EFL Learners

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Abstract

It is widely acknowledged that academic writing constitutes a challenge for EFL learners. This is why areas like the use of writing strategies, writing motivation and writing anxiety have attracted extensive attention in the literature. However, the interplay between these three areas has not been researched sufficiently, particularly among Arab learners. The present study bridges this gap by examining the use of writing strategies by Saudi EFL learners and the relationship between the learners' use of these strategies and their writing motivation and writing anxiety. A total of 206 Saudi EFL learners responded to a questionnaire that assessed how they used writing strategies, as well as their writing motivation and anxiety. Using descriptive statistics, the results showed that the Saudi EFL learners use most writing strategies moderately or to a high extent. It was also found that students generally experience a high degree of motivation and a moderate degree of anxiety while writing. The Pearson Correlation analysis indicated that students' use of writing strategies is somewhat positively correlated with their writing motivation and negatively correlated with their writing anxiety. Additionally, multiple regressions revealed that the use of writing strategies was predicted by both writing motivation and writing anxiety, although prediction by the writing motivation was more prominent. The results are discussed in reference to the relevant theories and pedagogical implications and future research directions are proposed.

Keywords: writing strategy; writing motivation and anxiety; EFL learners



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1. Introduction

Many scholars have reported writing to be the most challenging skill for language learners, especially in foreign language settings (e.g., [Ahmad et al., 2024](#); [Amalia et al., 2021](#); [El-Dakhs, 2020](#); [El-Dakhs et al., 2022](#); [Imran & Almusharraf, 2023](#); [Ozfidan et al., 2025](#)). Such a difficulty is evident in the case of academic writing courses at Saudi university level due to the entanglement of many linguistic, cognitive and cultural factors (e.g., [Albelihi & Al-Ahdal, 2024](#); [Alharbi & Albelihi, 2023](#); [Alharthi, 2021](#); [Ambreen et al., 2023](#)). Nonetheless, mastering academic writing remains a pressing need for learners who aim to express their knowledge, engage in scholarly discourse, and participate in academic communities worldwide. In fact, the inherent complexity of academic writing imposes restrictions on EFL

learners who struggle to express their ideas using appropriate vocabulary, implementing correct grammar and meeting unity and coherence conditions.

Aiming to overcome such challenges, EFL learners deploy effective writing strategies including planning, organizing, revising and self-monitoring to better the quality of their writing (e.g., [B. Shen & Wang, 2024](#); [Teng et al., 2022](#); [Yang et al., 2023](#)). However, many affective factors, including motivation and anxiety, control the background of the writing process directing learners' choice of writing strategies to adopt (e.g., [Bailey & Almusharraf, 2022](#); [Hu, 2022](#); [Xu & Wang, 2022](#)). To elaborate, if learners are motivated to write, they are expected to carry out strategic steps that support their writing while those who experience high anxiety levels may fail to benefit from such productive behavior (e.g., [Abolhasani et al., 2022](#); [Mallahi, 2025](#)). In fact, a number of scholars in different parts of the world, including China, Portugal, Turkey, Indonesia, Afghanistan and Pakistan, have shown that writing motivation (e.g., [Han, 2023](#); [Rasteiro & Limpo, 2023b](#); [Solhi et al., 2024](#)) and writing anxiety (e.g., [Jawas, 2019](#); [Rasool et al., 2023](#); [Quvanch & Si Na, 2022](#)) greatly influence writing performance and outcome. Despite the apparent link between such affective factors and writing, further research is needed to identify how motivation and anxiety are interlinked with Saudi undergraduates' implementation of writing strategies in EFL learning environments.

Writing strategies in different EFL settings have attracted academic research, specifically how cognitive and metacognitive strategies positively impact writing quality (e.g., [Bui et al., 2023](#); [Dinsa, 2023](#); [Fajrina et al., 2023](#); [Ozfidan et al., 2024](#)). On a different note, sufficient attention has been given to the effects of motivation and anxiety, as two distinct affective variables, on both language learning and writing performance (e.g., [Alzubi & Nazim, 2024](#); [Sabti et al., 2024](#); [Sun et al., 2024](#); [S. Yu et al., 2022](#)). Nevertheless, the use of writing strategies by Saudi undergraduates with reference to the collective influence of motivation and anxiety has received little attention. Additionally, the link between learners' writing motivation and their levels of writing anxiety has been understudied in the literature. Hence, further research is required to fill this gap to grant a deeper understanding of the trilateral relationship among these three variables in the Saudi EFL context.

The present study aims to bridge this gap by identifying the writing strategies frequently deployed by Saudi EFL undergraduates and underlining the influence of motivation and anxiety on the adaptation of writing strategies. In addition, the study will examine the relationship between writing motivation and writing anxiety as two affective filters hovering in the background of the writing process. The study, thus, seeks to add insights to EFL writing-related research in the context of Saudi Arabia by sharing practical pedagogical implications that enable teachers to create effective learning environments that boost students' motivation, reduce their anxiety and promote the adoption of writing strategies with the ultimate aim of improving their academic writing skills.

2. Theoretical Framework

The present study is grounded in three different theoretical foundations: [Flower and Hayes's \(1981\)](#) Cognitive Process Model of Writing, [Krashen's \(1982\)](#) Affective Filter Hypothesis and [Bandura's \(1997\)](#) Self-Efficacy Theory. While the former visualizes learning as a mental process, the second two shed light on the emotional factors that facilitate/hinder the actualization of learning.

To begin with, the Cognitive Process Model of Writing, developed by [Flower and Hayes \(1981\)](#), regards writing as a goal-directed process of a recursive nature unlike the conventional view of it as a stream of steps in a linear sequential flow. [Flower and Hayes \(1981\)](#) posit that writing involves three cognitive processes. These are planning, translating, and reviewing. In the planning stage, learners generate ideas, establish their goals and

organize information based on the long-term memory storage relevant to the topic in focus, the audience addressed and the discourse targeted. Second, learners are required to translate such knowledge into written text by performing linguistic encoding that is governed by lexical and syntactic standards. Finally, learners are to review their produced texts to ensure their coherence and clarity; hence, the reviewing process is basically a further step of planning and translating with the ultimate aim of polishing the end product. These three processes are carried out as a reaction to the writing prompt, the audience profiling and the available resources, yet learners are expected to implement them in a recursive manner; that is, they move freely between them to fulfill the task. Importantly, this recursion is not merely cyclical but dynamically interactive, as each process can interrupt, reshape, or re-initiate another at any point in response to emerging ideas, problem-solving demands, and evolving goals. Thus, writers continuously reassess and reorganize their thinking rather than progressing in fixed stages. Hence, this model conceptualizes writing as a problem-solving activity that aims to fulfill the writing task (Flower & Hayes, 1981). It must be noted that while the Cognitive Process Model conceptualizes writing as a dynamic mental activity, the present study operationalizes these processes through learners' self-reported strategy use, which provides indirect access to underlying cognitive activity.

Krashen's (1982, 1985) Affective Filter Hypothesis presents the second foundation for the present study. According to Krashen (1982), emotional and psychological factors, including motivation, self-confidence and anxiety, have a major impact on the success of the acquisition process of a second language. The affective filter is a barrier that can facilitate or hinder the processing of linguistic input. That is, negative emotions like high anxiety, low motivation and poor self-confidence increase the resistance of the affective filter, which negatively impacts the acquisition process; hence, language structures are neither absorbed nor internalized. In contrast, high levels of motivation and self-confidence and reduced levels of anxiety lower the effect of the affective filter, leading to effective language acquisition. Although originally formulated to explain language acquisition, the affective filter also influences language production by regulating learners' access to and use of already acquired linguistic knowledge (e.g., Chong et al., 2025; Ma, 2022). In writing contexts, a high affective filter may restrict cognitive resources, reduce idea generation, and hinder the effective deployment of writing strategies, whereas a low affective filter facilitates fluent expression and strategic engagement with the writing task.

In the same vein, Bandura's (1997) Self-Efficacy Theory draws attention to individuals' beliefs in their abilities to carry out the tasks assigned to them since these beliefs affect their motivation and performance. Focusing on academic writing in EFL settings, learners' attitudes towards writing are affected by their self-efficacy, a construct that refers to the confidence learners have in their own abilities and their beliefs in their own success. High writing self-efficacy encourages learners to fulfil writing tasks regardless of how challenging the tasks are. Learners, in such a case, are determined to succeed, so they apply different strategies to pave the way for their success (Bandura, 1997). Alternatively, low self-efficacy may lead to task-induced anxiety and writing avoidance behavior. According to Bandura (1997), positive feedback, model texts, and scaffolded writing tasks can enhance students' confidence and willingness to engage in the writing process.

Integrating principles from the three previous theories, the present study aims to provide a deeper understanding of the triangular relationship between writing strategies, writing motivation and writing anxiety to support EFL learners in the Saudi context.

3. Literature Review

3.1. Studies on Writing Strategies

It is of relevant importance to the study at hand to overview the work on language learning strategies before proceeding to discuss writing strategies. Language learning strategies (LLSs) are defined as the “specific actions taken by the learner to make learning easier, faster, more enjoyable, more effective, and more transferrable to new situations” (Oxford, 1990, p. 8). According to Oxford (1990), LLSs represent the active, self-directed steps learners take to accelerate their learning and maximize their self-confidence. The literature on LLSs is extensive, encompassing both general strategies and those specific to particular language skills or systems. However, it is vital for the present article to briefly review Oxford’s (1990) categorization of learning strategies. Oxford (1990) broadly classified them into direct learning strategies and indirect learning strategies. Direct strategies refer to all the steps taken by the learners that involve mental processing of the language including memory strategies (e.g., creating mental linkage to recall information), cognitive strategies (e.g., practicing to produce a variety of language forms) and compensation strategies (e.g., guessing to make up for the lack of knowledge). Indirect strategies, on the other hand, include a variety of metacognitive strategies (e.g., planning and evaluating that enable learners to perform cognitive processes), affective strategies (e.g., dealing with task anxiety/motivation to adjust negative/positive behavior) and social strategies (e.g., cooperating with classmates to fulfil the tasks by interacting with others in the social environment).

Given the above, investigating learners’ writing strategies has received considerable attention in the literature, especially in foreign/second language settings. Several scholars attempted to examine the varieties of strategies language learners implement in different parts of the world (e.g., Abdollahzadeh, 2010; Chien, 2012; Fajrina et al., 2023; Maarof & Murat, 2013; Penuelas, 2012; Ozfidan & El-Dakhs, 2024) and the relationship between the use of these strategies and several other variables, including age, gender, language proficiency, self-efficacy, and writing quality, among others (e.g., Bai et al., 2014; Kao & Reynolds, 2017; Mallahi, 2024). For example, Dinsa (2023) examined Ethiopian undergraduates’ use of writing strategies and their relationship with the participants’ gender and year of study. Data were collected from 148 English majors using a questionnaire. The results showed that the students primarily used the metacognitive and cognitive writing strategies, and that the implementation of writing strategies was not influenced by either gender or year of study. Likewise, Bui et al. (2023) studied the writing strategies deployed by Vietnamese pre-service teachers using document analysis and interviews. The results revealed the participants’ frequent use of rhetorical, metacognitive and cognitive strategies, and that the use of these strategies is highly influenced by the participants’ self-efficacy and self-regulation.

In the Saudi context, fewer studies sought to examine the writing strategies of English language learners. Among these studies is Alnufaie and Grenfell (2012), who examined the writing strategies among 121 Saudi undergraduate students studying English for Specific Purposes (ESP) in an industrial college. The study focused on comparing product-oriented versus process-oriented writing strategies. Although the students reported that their teachers mainly relied on product-oriented writing instruction, the students were using a mixture of both product- and process-writing strategies, with more emphasis on process-oriented strategies. Product-oriented approaches typically emphasize the final written text, accuracy, and adherence to linguistic forms, often treating writing as a linear activity with limited attention to revision or idea development. In contrast, process-oriented writing approaches conceptualize writing as a recursive and dynamic activity involving multiple stages such as planning, drafting, revising, and editing (Flower & Hayes, 1981).

These approaches highlight the importance of idea generation, audience awareness, and continuous revision, allowing learners to refine both content and form over time.

In the same vein, [Alkubaidi \(2014\)](#) examined the relationship between writing strategy use, learning style preferences and writing proficiency. Data were collected from 74 undergraduates in a public university through questionnaires. The results showed that students used before-writing strategies much more frequently than during-writing strategies or reviewing strategies. This emphasis on pre-writing strategies aligns with process-oriented pedagogy, which foregrounds planning and idea organization as essential stages in effective writing development, unlike product-oriented instruction, which tends to prioritize the correctness of the final output. The results also showed no relationship between strategy use and participants' learning styles or writing proficiency.

It must be noted that most studies on L2 writing strategy use (e.g., [Mallahi, 2024](#); [Razzaq & Hamzah, 2024](#); [Sundari & Febriyanti, 2022](#)) recommended that writing instructors should raise the learners' awareness of the various writing strategies that can be used before, during and after writing to improve the quality of the writing product. Additionally, instructors need to provide extensive practice on writing strategy use to language learners to help them enhance their writing competence. In this practice, learners will need adequate scaffolding while they use the different strategies and will benefit from timely feedback on their strategy use to ensure efficient and effective implementation of the various strategies.

3.2. Studies on Writing Anxiety

Several studies have examined the construct of writing anxiety because writing constitutes a major difficulty for language learners. A large number of these studies (e.g., [Alfarwan, 2022](#); [Jawas, 2019](#); [Quvanch & Si Na, 2022](#); [Rasool et al., 2023](#); [Y. Yu & Zhou, 2022](#); [Rivera et al., 2025](#)) have attempted to explore the causes of this phenomenon or examine how learners perceive it. For example, [Sabti et al. \(2024\)](#) examined the causes of writing anxiety among Iraqi EFL learners. Data were collected from 100 undergraduate students using two questionnaires. The results showed that participants suffered from three types of anxiety known as somatic, avoidance behavior and cognitive. Anxiety was more significantly noted among female students than male ones. The main causes of anxiety were related to linguistic difficulties, fear of instructors' feedback, insufficient writing practice, and poor self-confidence. Similarly, [Sun et al. \(2024\)](#) explored the causes of writing anxiety among Chinese EFL learners. Data were collected from 18 undergraduates through semi-structured interviews and data were analyzed thematically. The study identified seven primary causes for writing anxiety, namely, linguistic difficulties, poor knowledge of writing topics, inexperience with the target genre, difficulties with brainstorming, challenges with structuring ideas, inability to integrate sources effectively and fear of instructors' feedback. Overall, these types of studies called for the importance of adopting well-designed strategies to alleviate the learners' anxiety in order to improve their affective experience in the writing class and allow them to enjoy the writing process.

In addition to the above, further studies (e.g., [Khabooshan & Saeedirad, 2022](#); [Khosravi et al., 2023](#); [X. Shen & Tao, 2025](#); [Shurovi et al., 2022](#); [Tabari et al., 2025](#)) attempted to examine the writing anxiety of EFL learners in relation to other variables, such as self-efficacy, writing performance, self-regulation, personality types, and self-esteem, among others. For example, [Heidarzadi et al. \(2022\)](#) examined the relationship between Iranian EFL learners' epistemic beliefs, writing self-efficacy and writing anxiety. Data were collected from 240 learners using 3 validated questionnaires and were processed using structural equation modeling. The results showed that both epistemic beliefs and writing self-efficacy are predictors of learners' writing anxiety as they represented 43% of the variance in the writing anxiety scale. Epistemic beliefs—defined as learners' beliefs about the nature of

knowledge and knowing and measured through a validated questionnaire—were found to be positively associated with writing anxiety, indicating that learners holding more maladaptive epistemic beliefs tended to experience higher anxiety. However, increased levels of self-efficacy correlated with lower levels of writing anxiety. Along the same lines, [Fitrinada et al. \(2018\)](#) studied the correlation between writing anxiety and writing achievement among 84 Indonesian EFL undergraduates. The results showed a significant negative correlation between writing anxiety and writing achievement, hence motivating the authors to call upon educators to reduce the students' writing anxiety in classrooms.

Of most relevance to the current study is previous research that examined the relationship between writing anxiety and writing strategies, which are comparatively scarce. One relevant study in this regard is [Stewart et al. \(2015\)](#), who focused on the relationship between writing anxiety and self-efficacy and students' self-perceived use of metacognitive writing strategies. Data were gathered from 795 undergraduates in a research university in Canada through questionnaires. The results showed that reduced writing anxiety and increased self-efficacy had a significant correlation with students' self-reported use of metacognitive writing strategies. The authors recommended performing instructional interventions that aim to reduce writing anxiety and increase self-efficacy in order to enhance students' strategy use and, hence, their writing performance. Another relevant study is [Abolhasani et al. \(2022\)](#), who investigated the relationship between L2 writing anxiety and graph writing performance and strategy use. A total of 209 Iranian undergraduates responded to two questionnaires on writing anxiety and use of graph-writing strategies. They also wrote an essay based on a graph prompt. The results of Structural Equation Modeling (SEM) indicated that writing anxiety is a negative predictor of both graph-writing performance and strategy use.

3.3. Studies on Writing Motivation

The topic of “writing motivation” has garnered extensive attention in the literature, particularly due to the evidenced negative impact of demotivation on language learning and production (e.g., [D’Orazzi, 2020, 2024](#)). Some studies aimed to identify and describe this construct among L2 learners. For example, [S. Yu et al. \(2022\)](#) explored Chinese secondary school students' motivation and engagement in English writing. Data were collected from 2205 students through a questionnaire. The results cast doubt on the dichotomous portrait of L2 learners as either motivated/engaged or unmotivated/disengaged. Instead, the results reflected that students can be categorized into four profiles: namely, (1) unmotivated/disengaged, (2) motivated/engaged, (3) ambiguously motivated/engaged, and (4) ambivalently motivated/engaged. Another relevant study was conducted by [Alzubi and Nazim \(2024\)](#) on intrinsic motivation in L2 writing among university students in Saudi Arabia. A total of 200 EFL students completed a questionnaire which showed that self-assignment of writing topics is related to high levels of intrinsic motivation. This was particularly the case among female students and those with high Grade Point Average (GPA), a cumulative measure of students' academic performance.

A higher number of studies (e.g., [Aryanika, 2016](#); [Rasteiro & Limpo, 2023a, 2023b](#); [Solhi et al., 2024](#); [Wang & Troia, 2023](#)) attempted to examine the relationship between writing motivation and other variables, including writing performance and writing quality. For example, [Han \(2023\)](#) examined the effect of blog-based instruction in writing classes on the writing quality and motivation of Chinese EFL students in a language school. The 49 participants were divided into an experimental group, who posted their writing on blogs, and a control group, who did not post their writing on any technological platform. Using a questionnaire and IELTS writing tasks in a pre-test/post-test design, the results showed that using blogs enhanced students' writing quality and motivation. Another relevant study

was carried out by S. Yu et al. (2023) to examine the effect of different writing instructional approaches on the writing motivation and engagement of Chinese university students. A total of 1190 undergraduates completed relevant questionnaires, and the results suggested that genre-oriented writing approach was the best predictor of students' motivation and engagement. The results also showed that while the product-based approach enhanced both writing motivation and engagement, the process-based approach had a more notable positive influence on writing engagement than motivation.

Despite the extensive work done to examine writing motivation in relation to several variables as shown above, the relationship between writing motivation and writing strategy use was rarely examined. A relevant study was conducted by Raoofi and Maroofi (2017) on the interaction between writing motivation, strategy use and performance. The data, which were collected from 304 undergraduates in Malaysia through questionnaires and writing tests, showed that writing performance is positively related to writing motivation and writing strategy use. Similarly, another study was carried out by Mallahi (2025), who examined the interactions between motivation regulation strategies, integrated writing strategies use and writing performance. Data were collected from 31 Iranian EFL learners through questionnaires and writing tasks. The results showed a moderately positive relationship between motivation strategy use and writing performance. However, the relationship between writing strategy use and writing performance or motivation strategies was low. It was also noted that highly proficient learners employed motivation strategies more frequently than low-proficiency learners, whereas no difference was noted between the two groups in respect to writing strategy use. This suggests that differences in learners' proficiency may be more closely associated with their use of motivation strategies rather than with the frequency of writing strategy use.

Taken together, the survey of literature above shows that there are plenty of studies on writing strategy use, writing anxiety and writing motivation and their relationships with other variables. However, the triangular relationship among the three constructs is not explored sufficiently in literature. We aim to fill this gap through examining the interaction between the three constructs among a relatively underrepresented population in this area, which is Saudi undergraduate students. More specifically, our research questions are:

1. What are the frequent self-reported writing strategies Saudi students use when writing in English?
2. How does motivation influence the Saudi students' choice of writing strategies?
3. How does anxiety influence the Saudi students' choice of writing strategies?
4. What is the relation between Saudi students' writing motivation level and writing anxiety?

4. Methodology

4.1. Participants

A total of 206 Saudi undergraduates enrolled in academic writing courses took part in the present study. The students were recruited from the Colleges of Law, Business Administration, Humanities and Sciences, Computer and Information Sciences, Engineering and Architecture and Design of a private university in Riyadh, Saudi Arabia. All participants were at B2 or above level of English language competence as per the university admission criteria. The participants included 113 females and 93 males aged between 17 and 29, with a mean of 19.56.

4.2. Instrument

The current study employed one survey for data collection that consisted of six sections. The first section included a description of the purpose of the study and procedure. The second section included statements to seek the participants' consent for participation.

The third section included demographic information, such as gender, nationality, age and major. The fourth section included 10 statements to assess the participants' writing motivation, particularly in terms of confidence/self-efficacy. The statements were adopted from Ling et al.'s (2021) writing motivation survey, which was validated through EFA and CFA for internal structure, and internal consistency was tested with Cronbach's alpha. The fifth section consisted of 10 statements that assessed the participants' writing anxiety. The statements were adapted from the cognitive anxiety section in Cheng's (2004) writing anxiety scale, which was validated by using EFA, pilot testing, reliability checks (Cronbach's alpha and test-retest), and examining construct, convergent, discriminant, and criterion-related validity. The statements in the fourth (motivation) and fifth (anxiety) sections were evaluated against a 5-point Likert scale that ranged from 1 ('strongly disagree') to 5 ('strongly agree'). The last section consisted of 20 statements describing the writing strategies during the pre-writing, while-writing and post-writing stages. The statements, which the students evaluated against a 5-point Likert scale ranging between "never true" and "always true", were adopted from Hwang and Lee's (2017) writing strategy inventory, which was validated by using EFA for construct validity and think-aloud protocol analysis for response validity, along with internal consistency reliability (Cronbach's alpha). It must be noted that the survey was administered in English, which was not problematic for our EFL learners because their language proficiency was B2 and above. It should also be noted that the questionnaire captures learners' perceptions and self-reported use of writing strategies, rather than real-time cognitive processes during writing.

4.3. Data Collection

The study instrument was made available in a Google form. After receiving the ethical approval of the Institutional Review Board and coordinating with the relevant academic department, the link to the Google form was sent to students via email. Students were provided with an explanation of the study purpose and procedure before completing the survey, which already included a consent section. Students were aware that the data would be collected anonymously and that their responses would be used only for research purposes. The students were also aware that they could withdraw from the study at any point and that there were no rewards for participation.

4.4. Data Analysis

SPSS version 29, a statistical program frequently used in Second Language Acquisition (SLA) research due to its effectiveness and dependability, was utilized to evaluate the data). To compile demographic data and survey answers, descriptive statistics such as means, standard deviations, and frequencies were calculated. Cronbach's alpha reliability analysis was used to evaluate the instruments' internal consistency. The associations between writing anxiety, motivation, and method use were examined using Pearson's correlation. In order to predict the adoption of writing styles based on anxiety levels and motivating factors, multiple regression analysis was also performed.

5. Results

5.1. Descriptive Statistics

Table 1 provides an overview of participants' self-reported motivation and confidence in various aspects of writing in English. Among the writing tasks assessed, participants indicated the highest confidence in their ability to write a well-organized essay with a clear introduction, body, and conclusion (Mean = 4.1, SD = 0.9). Similarly, planning to complete writing tasks by the deadline received a high confidence rating (Mean = 4.0, SD = 1.0). Participants also reported considerable confidence in setting goals for improving

their writing (Mean = 3.9, SD = 0.9) and generating ideas when given a topic (Mean = 3.9, SD = 0.9). In contrast, the items with relatively lower confidence ratings included avoiding distractions while writing (Mean = 3.5, SD = 1.1), using punctuation correctly in all sentences (Mean = 3.6, SD = 1.0), planning their writing with an outline or organizer (Mean = 3.6, SD = 1.0), and selecting perfect words to express ideas (Mean = 3.6, SD = 1.0). Overall, the findings suggest that while participants generally felt motivated and capable regarding structural and organizational aspects of writing, there was somewhat less confidence regarding the technical details of writing and managing distractions during the writing process.

Table 1. Motivation for Writing in English.

Items	Mean	SD	N
I can write complex sentences without making spelling and grammatical errors.	3.7	1.0	206
I can set goals for improving my writing.	3.9	0.9	206
I can think of a lot of ideas for my writing.	3.8	0.9	206
I can use punctuation correctly in all my sentences.	3.6	1.0	206
I can plan before I write using an outline or organizer.	3.6	1.0	206
I can avoid distractions while I write.	3.5	1.1	206
I can write a well-organized essay with an introduction, body, and conclusion.	4.1	0.9	206
I can plan time to get my writing done by the deadline.	4.0	1.0	206
I can find ideas to write about when I'm given a topic.	3.9	0.9	206
I can think of the perfect words to express my ideas.	3.6	1.0	206

Table 2 presents descriptive statistics regarding writing anxiety among students' writing in English. Participants expressed moderate anxiety, with mean scores ranging from 1.9 to 2.6 (on a scale presumably indicating lower scores as less anxiety and higher scores as greater anxiety). The highest reported concern (Mean = 2.6, SD = 1.1) was related to apprehension about organizing ideas and conforming to English writing norms. Students also moderately worried about receiving poor evaluations (Mean = 2.5, SD = 1.3) and using improper expressions or sentence structures (Mean = 2.5, SD = 1.1), with the relatively high standard deviations indicating considerable variation in responses among participants. Slightly lower anxiety levels were associated with feelings of nervousness while writing in English (Mean = 2.1, SD = 1.2) and concerns about peer judgment (Mean = 1.9, SD = 1.2). Overall, these results indicate that students experienced a range of anxieties primarily centered around evaluation outcomes and adherence to writing norms, reflecting underlying insecurities regarding their competence in English composition.

Table 2. Writing Anxiety.

Items	Mean	SD	N
I'm afraid that the other students would make fun of my English composition if they read it.	1.9	1.2	206
I'm afraid of my English composition being chosen as a sample for discussion in class.	2.2	1.2	206
If my English composition is to be evaluated, I would worry about getting a very poor grade.	2.5	1.3	206
While writing English compositions, I feel worried and uneasy if I know they will be evaluated.	2.5	1.1	206
While writing in English, I often worry that the ways I express and organize my ideas do not conform to the norm of English writing.	2.6	1.1	206
While writing in English, I often worry that I would use expressions and sentence patterns improperly.	2.5	1.1	206

Table 2. *Cont.*

Items	Mean	SD	N
I worry about what other people would think of my English compositions.	2.1	1.2	206
I worry that my English compositions would be rated as very poor.	2.3	1.1	206
I worry that my English compositions are a lot worse than others.	2.0	1.1	206
While writing in English, I feel nervous.	2.1	1.2	206

Table 3 presents descriptive statistics related to the writing strategies employed by participants (N = 206) across three phases: before writing, during writing, and after writing. In the “Before Writing” phase, participants fairly strongly considered task requirements and clearly defined the purpose of their writing (M = 4.0, SD = 1.0 for both items). They were less inclined to use their first language (Arabic) when initially generating ideas (M = 2.7, SD = 1.4) or creating an outline (M = 2.4, SD = 1.3). Conversely, writing down ideas in English (M = 3.8, SD = 1.1) and outlining in English (M = 3.6, SD = 1.2) were more frequent strategies. “During Writing,” participants actively checked logical flow, both at the sentence (M = 3.8, SD = 1.0) and paragraph levels (M = 3.9, SD = 0.9). They less frequently sought direct assistance from native speakers (M = 2.8, SD = 1.3) or translated from Arabic to English when encountering difficulties (M = 2.5, SD = 1.3), preferring instead to refer to additional reading materials (M = 3.4, SD = 1.0). In the “After Writing” phase, strategies related to reviewing and editing received the highest ratings, specifically reading through the final draft thoroughly (M = 4.0, SD = 1.1), correcting typos (M = 4.0, SD = 1.0), and grammatical errors (M = 4.0, SD = 1.0). Self-assessment regarding the connection between topics and supporting ideas was also commonly reported (M = 3.8, SD = 1.0). However, the use of an English dictionary to correct spelling (M = 2.9, SD = 1.3) and seeking feedback from native speakers (M = 3.2, SD = 1.3) were less frequently employed. Overall, participants placed significant emphasis on clearly understanding task requirements, regularly revising their work for coherence, and thoroughly checking their final drafts for accuracy. Conversely, reliance on first-language strategies and direct assistance from native speakers was comparatively lower.

Table 3. Writing Strategies.

Items	Mean	SD	N
Before Writing			
I consider what will be assessed in my writing.	3.6	1.0	206
I consider what the requirements of the writing task are.	4.0	1.0	206
I make the purpose of my writing clear.	4.0	1.0	206
When generating ideas, I write down ideas that come to mind in Arabic.	2.7	1.4	206
When generating ideas, I write down ideas that come to mind in English.	3.8	1.1	206
I make an outline in English.	3.6	1.2	206
To generate ideas, I refer to a variety of reading materials.	3.3	1.1	206
I make an outline in Arabic.	2.4	1.3	206

Table 3. *Cont.*

Items	Mean	SD	N
During Writing			
I reread the relationship between sentences repeatedly to check the logical flow.	3.8	1.0	206
I read repeatedly through paragraphs to check the logical flow.	3.9	0.9	206
To clarify the purpose of the writing, I identify the expected readers.	3.5	1.0	206
If I have trouble writing in English, I write what I want to express in Arabic first and then translate it into English.	2.5	1.3	206
I ask a native speaker about English expressions that I do not know or that I want to use.	2.8	1.3	206
To seek additional ideas on a writing topic, I refer to reading materials.	3.4	1.0	206
After Writing			
I read the final draft thoroughly from beginning to end to look for any errors.	4.0	1.1	206
I assess my writing by myself in terms of whether the topic and its supporting ideas are effectively connected.	3.8	1.0	206
I use an English dictionary to correct spellings.	2.9	1.3	206
I review my work to look for and correct typos.	4.0	1.0	206
I review my work to look for and correct grammatical errors.	4.0	1.0	206
I seek feedback from a native speaker.	3.2	1.3	206

Overall, the descriptive data show that students use writing strategies frequently and are moderately motivated, but they also experience anxiety, which may affect their capacity to use these strategies successfully. The results further indicate that reviewing and editing strategies were the most frequently used, suggesting their effectiveness, whereas strategies such as first-language use and seeking assistance from native speakers were less frequently employed.

5.2. Pearson's Correlation

Motivation and Writing Strategies ($r = 0.46$, $p < 0.001$): The utilization of writing strategies and motivation are somewhat positively correlated. This indicates that highly motivated students typically employ a wider range of writing techniques. Students that are motivated are probably more likely to plan, organize, and revise their work, which improves the efficacy of their writing overall (see Table 4).

Table 4. Pearson's Correlation Matrix.

	Motivation	Anxiety	Writing Strategies
Motivation	1.0	−0.54	0.46
Anxiety	−0.54	1.0	−0.22
Writing Strategies	0.46	−0.22	1.0

Anxiety and Writing Strategies ($r = -0.22$, $p = 0.002$): There is a weak negative link between the usage of writing strategies and anxiety, indicating that students who experience higher levels of worry are likely to employ fewer writing strategies. This could be as a result of anxiety preventing cognitive and behavioral engagement with writing assignments, which results in hurried or avoidance work instead of a methodical approach (see Table 4).

Motivation and Anxiety ($r = -0.54$, $p < 0.001$): Anxiety and motivation are found to be moderately negatively correlated. This suggests that anxiety falls as motivation rises and

vice versa. According to this relationship, increasing students' self-assurance and internal drive to write may lessen their writing anxiety and promote more productive participation in writing assignments (see Table 4).

In summary, these connections imply that while high anxiety might have a detrimental effect on writing engagement, motivation is essential for encouraging the adoption of writing strategies and lowering writing anxiety.

5.3. Multiple Regression

The multiple regression analysis explores the extent to which motivation and anxiety predict the use of writing strategies.

Regression Analysis 1: Motivation → Writing Strategies

This regression analysis examined the relationship between students' motivation and their use of writing strategies. The findings indicate that the usage of writing strategies is significantly predicted by motivation ($\beta = 0.37, p < 0.001$). This implies that students are more likely to employ a variety of writing techniques as their motivation levels rise. Motivation accounts for 21.4% of the variation in the usage of writing strategies, according to the R^2 value of 0.214. This shows that students' motivation is a good indicator of how frequently they use effective writing strategies. According to the positive and statistically significant link, students' capacity to employ efficient writing strategies can be improved by encouraging motivation, for example, by offering interesting writing topics and encouraging feedback.

Regression Analysis 2: Anxiety → Writing Strategies

This regression analysis examined the relationship between writing anxiety and the use of writing strategies. The findings indicate a smaller but still significant negative correlation ($\beta = -0.12, p = 0.002$). This indicates that, although the effect is slight, the use of writing strategies declines as anxiety rises. Anxiety only accounts for 4.7% of the variance in the usage of writing strategies, according to the R^2 value of 0.047. This implies that although anxiety does have an effect, motivation is a better predictor. The hypothesis that students who are concerned about writing might decline preparing, reviewing, and other helpful writing methods, which could result in lower writing performance, is supported by the detrimental effect of anxiety on the usage of writing strategies.

5.4. Summary of Results

The results of regression models, correlation analysis, and descriptive statistics show that while anxiety has a lesser but detrimental effect, motivation is a major element in enhancing students' usage of writing strategies. Students with high levels of anxiety are less likely to use organized writing skills, whereas more motivated students typically employ writing strategies more successfully.

Increasing students' motivation should be the top priority of educational interventions since it significantly and favorably affects their capacity to use efficient writing techniques. Simultaneously, it is important to work toward lowering writing anxiety because this could motivate learners to write more thoroughly. Students' writing performance may be enhanced by techniques including giving constructive criticism, easing the burden of grades, and teaching coping skills for anxiety.

6. Discussion

According to Oxford (1990), LLSs represent the active, self-directed steps learners take to accelerate their learning and maximize their self-confidence. We selected the statistical approaches of regression models, correlation analysis, and descriptive statistics for our

study to better understand the trilateral relationship between writing strategies, writing motivation and writing anxiety to support EFL learners in the Saudi context. Our study sheds light on how motivation and anxiety are connected to Saudi undergraduates' use of writing strategies in EFL learning environments. Additionally, in the context of this study, Krashen's (1982) Affective Filter Hypothesis illustrated students' motivation and levels of anxiety as having an impact on the ability of a student to learn a second language. Finally, Bandura's (1997) Self-Efficacy Theory stated how a student's amount of self-efficacy, or self-confidence, in their own abilities can significantly impact their academic writing in EFL settings. It should be noted, however, that the present study relies on self-reported questionnaire data, which may not directly capture underlying cognitive writing processes or fully reflect the affective mechanisms proposed by the theoretical frameworks.

The first research question addressed writing strategies Saudi students use when writing in English. The results in Table 3 showed what strategies students used before, during, and after writing in English. Corresponding to Flower and Hayes's (1981) Cognitive Process Model, which views writing as a three-stage process, planning, translating, and reviewing, our study identifies three different stages for writing, the before, during and after stages. Alkubaidi (2014) showed that students used before-writing strategies more than during or after writing strategies. Our findings revealed a different pattern, as students used after-writing strategies more often, followed by before-writing strategies, and finally during-writing strategies. Notably, students in the "before writing" stage prepared their writing in English, not in their native language (Arabic). It is possible that students preferred English over Arabic to help improve their writing skills in English, which is an academic requirement in Saudi higher education currently. A possible explanation for their use of English in the pre-writing stage is the increasing societal pressure on the use of English as the language of the job market and the language of science and the lingua franca of communication, particularly in a cosmopolitan society like Riyadh. This also may stem from the institutional culture in the university in which data were collected which requires the use of English in classes and includes a multicultural community that uses English as a lingua franca to communicate. In the before-writing strategies, two other interesting findings are that students use these strategies to a high extent:

"I consider what the requirements of the writing task are."

"I make the purpose of my writing clear."

A possible explanation for students' use of specific writing strategies is their desire to enhance the quality of their writing and ensure it meets academic standards. In the "during writing" stage, our findings showed that students prioritized maintaining logical flow at both sentence and paragraph levels. Furthermore, students preferred consulting supplementary reading materials rather than relying heavily on translation from Arabic or seeking help from native speakers. This implies how these students in the "during writing" stage sought to ensure they submitted their best work through checking their sentence and paragraph formation, as well as their desire to complete their work independently, as demonstrated through preference to consult additional reading material instead of seeking help from native speakers. This indicates a tendency toward autonomous learning and self-correction. The results from "After Writing" showed again students actively working to ensure they employ the most useful strategies to succeed, such as reviewing the material thoroughly. It is possible that students utilize certain strategies to ensure they succeed. Similarly, Dinsa (2023) found that students use cognitive and metacognitive writing strategies which were not influenced by the gender or year of the study. Dinsa (2023) found that these students utilized these strategies due to these strategies positively impact writing quality, which implies that students believed these writing strategies paved the way to better quality in their writing, which would ultimately improve their chances

to succeed. In this context, a modification of current writing strategies and of the way of teaching them at school and practicing them at home is needed to better serve Saudi EFL students.

The second research question addressed how motivation influences Saudi EFL students' choice of writing strategies. The results in Table 1 showed that the frequent writing strategies Saudi students use when writing in English were supported by motivation and confidence, such as participants reporting high confidence levels when writing a structured essay with an introduction, body and conclusion, as well as planning before completing writing tasks, setting goals, and generating ideas with a given topic. However, students did not feel confident regarding other writing strategies, such as avoiding distractions while writing, using punctuation correctly in all sentences, planning their writing with an outline or organizer, and selecting perfect words to express ideas when writing in English. This stark contrast between feelings of motivation and lack of confidence in writing strategies possibly reflects the need to have a stronger support system of teachers and peers for students who have low levels of confidence in their writing abilities. If we consider students who reported high levels of lack of confidence in their writing skills, then solutions can be crafted to better support EFL learners in the Saudi context. Signs of a lack of confidence can negatively impact the levels of motivation in students. Identifying the type of motivation is vital to understanding the relationship between motivation and the choice of writing strategies. In this regard, S. Yu et al. (2022) categorize learners into four profiles: (1) unmotivated/disengaged, (2) motivated/engaged, (3) ambiguously motivated/engaged, and (4) ambivalently motivated/engaged. Ambiguously motivated learners demonstrate unclear or inconsistent engagement, whereas ambivalently motivated learners experience conflicting attitudes toward writing tasks. For example, S. Yu et al. (2022) explored Chinese secondary school students' motivation and engagement in English writing, with the results reflecting that students can be categorized into four profiles, namely, (1) unmotivated/disengaged, (2) motivated/engaged, (3) ambiguously motivated/engaged and (4) ambivalently motivated/engaged. By reviewing S. Yu et al.'s (2022) four profiles of categorization for students, this categorization is vital to include to better understand how motivation influences students' writing strategy choices. Our study demonstrates the need for support that EFL learners in the Saudi context can benefit from during writing tasks and the impact motivation has on their choice of writing strategies. The process of aiding these students can include student workshops and peer-mentor partnerships which can increase the motivation students have regarding writing in English, as well as decrease any fear they may experience during the writing process.

Framed by Krashen's (1982, 1985) Affective Filter Hypothesis and Bandura's (1997) Self-Efficacy Theory, the third research question sought to understand how anxiety influences Saudi students and their choice in writing strategies. After the analysis of the data in Table 2, the results showed students' increased anxiety regarding organizing ideas and using improper expressions. Consequently, the anxiety influenced the decisions Saudi students made in their choice of writing strategies. This demonstrates how these students aim to utilize the most effective writing strategies, but are hindered by their concerns about organization and lexical accuracy. These findings are consistent with Sun et al. (2024), who also reported that EFL learners experience anxiety related to linguistic challenges and fear of evaluation, including concern about peer judgment. Other results showed how students had feelings of anxiety when writing in English, as well as their fear of being judged by their peers.

The fourth research question sought to examine the relation between Saudi students' writing motivation level and writing anxiety. Drawing on Bandura's (1997) Self-Efficacy Theory, comparing the results shown in Tables 1 and 2, a direct connection can be made

between motivation level and writing anxiety. Based on the results of this study, it can be observed that students who have a higher level of writing anxiety have a lower level of motivation. Additionally, having higher levels of motivation increases students' varied use of writing strategies. In [Stewart et al. \(2015\)](#), their results showed how reduced levels of anxiety directly impacted the writing strategy that was used by the students. In the context of our study, the relation between motivation level and writing anxiety illustrates the continuous need for support for these students.

7. Pedagogical Implications

The current study underlines the importance of enhancing students' self-efficacy in their writing abilities. Specifically, strategies such as planning before writing, setting clear writing goals, and engaging in thorough revision were associated with higher levels of motivation and should be explicitly emphasized in instructional practices. This can be addressed by integrating confidence-building activities, such as low-stakes writing assignments, personalized feedback, and opportunities for peer review. Second, the study emphasizes the importance of developing students' awareness and use of effective writing strategies—particularly at the planning, drafting, and revising stages. Therefore, writing instruction should explicitly teach these stages through sufficient scaffolding, guided practice and structured tasks. Finally, given the clear impact of anxiety and motivation on students' writing performance, it is integral to create supportive stress-free learning environments that reduce fear of judgment and increase engagement.

8. Conclusions

The implications of this study cannot be understated. Our main findings show that while anxiety has a lesser but detrimental effect, motivation is a major element in enhancing students' usage of writing strategies. Students with high levels of anxiety are less likely to use organized writing skills, whereas more motivated students typically employ writing strategies more successfully. Additionally, descriptive statistics presented in [Table 1](#) revealed the participants' motivation regarding structural and organizational aspects of writing, and there was somewhat less confidence regarding the technical details of writing and managing distractions during the writing process. [Table 2](#) also shows results from descriptive statistics, which revealed students experienced a range of anxieties primarily centered around evaluation outcomes and adherence to writing norms. [Table 3](#), formed by descriptive statistics, showed how students conducted the before writing, during writing, and after writing phases in their writing, resulting in students experiencing motivation, but also anxiety which can have a detrimental impact on their writing. Pearson's Correlation found that anxiety negatively impacts students in their writing process, and motivation can help students improve their writing. Multiple Regressions found two key relationships. The first one showed how students are more likely to employ a variety of writing techniques as their motivation levels rise. The second one discovered that the use of writing strategies declines as anxiety rises, and despite anxiety playing a role in the quality of writing strategies, motivation is a better predictor.

As evidenced by the lack of research on the triangular relationship between writing strategies, writing motivation and writing anxiety to support EFL learners in the Saudi context, further evidence-based research is needed on this topic to better assist these students. Future studies can explore different approaches to decrease students' writing anxiety and increase their writing motivation. Additionally, just as [Sabti et al. \(2024\)](#) examined the causes of writing anxiety among Iraqi EFL learners, the same needs to be done for Saudi EFL learners. It is also important that teachers understand what anxiety is, so that they can better identify it in their students, and better serve them. Furthermore, future

studies need to broaden their scope of study and be inclusive of Saudi EFL learners to locate additional pedagogical approaches that will serve these students. Alternatively, future research needs to stress the importance regarding feelings of apprehension from some Saudi EFL learners as they organize and prepare to write in English. Future studies need to build on this study and make the connections between motivation, writing strategies, and writing anxiety to Saudi EFL learners. The psychological and emotional factors matter, and by conducting this study, a nuanced approach is taken regarding Saudi EFL learners. Additionally, other recommendations for future research include focusing on methods that will better equip teachers to educate Saudi EFL learners on how to write effectively, especially in a foreign language. The limitations of our study include the possibility of participants allowing their own fears and anxieties to influence their answers to the survey questions. By future studies focusing on this population, writing strategies of Saudi EFL learners will improve due to further examining other causes of writing anxiety, which can increase their level of motivation, which will improve their quality of writing in English. A further limitation is that the study does not directly capture the real-time cognitive processes underlying writing. Instead, it relies on self-reported questionnaire data, which may not fully reflect the dynamic and recursive nature of writing as described in cognitive models (Flower & Hayes, 1981). Future research could employ process-oriented methods such as think-aloud protocols, keystroke logging, or eye-tracking to examine learners' actual cognitive engagement during writing.

9. Summary of Our Results and Their Significance

Our results showed how anxiety and motivation combined impact Saudi EFL students' use of writing strategies. Understanding how anxiety can hinder the use of writing strategies, while motivation enhances their application and thereby improves writing quality, offers valuable insights for supporting students affected by psychological factors such as anxiety. Additionally, our results also found how students who lacked confidence were also less likely to employ writing strategies, which can negatively impact their writing. The results raise awareness on anxiety and the detrimental role it plays in the lives of students. By scholars in future studies continuing this research, a wider audience in other parts of the world can be better served, particularly in contexts where mental well-being is not always openly addressed. Anxiety cannot be underestimated, and by raising awareness about the role it plays in EFL learners as they complete their school work is crucial to support these students. Motivation is equally important in EFL learners' formulation of writing strategies and the positive impact motivation has in these formulations. In summary, our results can better assist EFL learners in both the Saudi context and abroad and raise awareness about this understudied topic.

10. Limitations of Our Study and Directions of Research

This study had several limitations. First, although employing a questionnaire as the primary data collection tool for the study enabled gathering responses from a relatively large sample of Saudi undergraduate students, the limitations of questionnaires as a data collection tool cannot be overlooked including self-report bias where social desirability may guide participants' responses. Another issue is the potential risk that participants might have provided random responses. Hence, to address these issues and better capture the depth and complexity of the interplay between motivation, anxiety, and writing strategies, future research could incorporate qualitative methods, such as interviews or focus groups, to gain richer and more insightful conclusions regarding EFL learners' psychological and strategic writing processes.

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