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Sociocultural Perspectives on Writing Strategies among EFL College Students

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Abstract

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This study investigated the writing strategies employed by Taiwanese EFL English major college students through a sociocultural perspective. A total of 692 valid responses were collected via an online questionnaire, which included Likert-scale items and open-ended questions. Quantitative data were analyzed using descriptive statistics and ordinal logistic regression, while qualitative data were examined through content analysis. The findings revealed that survival strategies were the most frequently adopted, followed by growth strategies, with investment strategies being the least common. Gender was not found to be a significant predictor of writing strategy use. Qualitative results indicated that students' strategy choices were influenced by factors such as time constraints, instructional practices, peer interaction, and institutional expectations. From a sociocultural standpoint, three types of mediation were identified: tool-based, social, and institutional-cultural mediation. The results highlight that writing strategies are not merely individual choices but are shaped by broader contextual and social influences. This study provides pedagogical implications for enhancing writing instruction by integrating social interaction, technological tools, and alternative assessment methods.

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Introduction

Many factors can influence the writing process and outcomes for students learning English as a foreign language (EFL), including language proficiency, metacognitive knowledge of writing tasks, personal characteristics, gender, and the strategies employed in writing (Angelova, 1999). A series of studies have shown that effective use of writing strategies can distinguish mature L2 writers from less experienced ones, making these strategies a critical factor in ESL writing (Arndt, 1987; Beare, 2000; Chen, 2022; Han, 2017; Mu, 2005; Victori, 1995). Over the past few decades, research has often focused on how ESL writing can be taught most effectively, rather than on the writers themselves (Cheung et al., 2012).

Language learning strategies have been a significant area of research for L2 scholars (Brown, 2007; Chen et al., 2020; Sasaki et al., 2018). The concept of the "good language learner" was introduced by Rubin in the 1970s (Rubin, 1975), leading to further exploration of learner strategies (O'Malley & Chamot, 1990), primarily through the use of questionnaires (Oxford, 1990). Interest in writing strategies began to grow in the 1980s, although they were not the primary focus at that time (Schneider, 2022). Two distinct approaches—narrow and broad models—emerged in the study of writing strategies (Manchon, 2001; Manchon et al., 2007). The narrow model defines strategies as specific composition actions, such as planning, organizing, reviewing, and revising, while the broad model encompasses any actions, explicit or implicit, related to writing. The narrow approach is associated with cognitive models, whereas the broad approach aligns with sociocognitive models.

The Two Dominant Perspectives

Initially, cognitive and sociocognitive approaches dominated research themes, with various cognitive models being adopted in subsequent years (Roca de Larios et al., 2016). By the 1990s and 2000s, the social dimensions of writing strategies began to receive attention (Sasaki, 2007), leading to significant findings in understanding multilingual writers' behaviors in multicultural contexts (Atkinson, 2003; Cumming, 2006; Lee, 2020; Lei, 2008; Schneider, 2022). Despite this shift, cognitive approaches remained prevalent, with many recent studies still employing related models, such as the Self-Regulated Learning (SRL) Model (Chen et al., 2020; Eslami and Sahragard, 2021; Guo and Bai, 2022; Jarvela & Jarvenoja, 2011; Sasaki et al., 2018; Woottipong, 2020; Zhang & Jiang, 2026).

The concept of self-regulation, derived from educational psychology (Sasaki et al., 2018), is based on the idea that individuals achieve self-set goals by cognitively and motivationally regulating their performance and thinking in response to feedback (Oxford, 2017; Zimmerman, 2002). The SRL process involves setting goals, strategic planning, selecting strategies, self-monitoring effectiveness, and self-evaluating outcomes (Zimmerman, 2008). Woottipong (2020) explored the impact of SRL strategies and self-efficacy on high school students' writing performance, finding that both had a positive influence. Similarly, Eslami and Sahragard (2021) examined the effectiveness of self-regulatory strategic instruction on 50 Iranian EFL intermediate learners. After six sessions, the results demonstrated that self-regulatory strategies significantly improved writing skills at the metadiscoursal level.

However, the conventional cognitive framework has faced criticism for overlooking specific writing activities in context (Lantolf & Thorne, 2006). Beyond focusing solely on cognitive development, incorporating the social context in which writers operate provides evidence that writing skills can be practiced and enhanced (Lantolf & Thorne, 2006). Prior (2006) further argues that writing should be understood as a social action, where writers' knowledge and identities are shaped. These approaches challenge the notion that writing is merely a tool for communication.

A New Perspective: Sociocultural Approach

While cognitive and sociocognitive approaches offer valuable insights into writers' internal processes, this study shifts focus to the interaction between the environment and the acquisition of writing strategies, aiming to transcend the sometimes imprecise distinction between narrow and broad categories (Manchon, 2001; Schneider, 2022). Vygotsky's (1978) Sociocultural Theory (SCT) serves as a foundational framework, positing that cognitive development in children is shaped not by internal processes alone, but through social interactions co-constructed with knowledgeable individuals (Lantolf, 2008). SCT is grounded in three pioneering ideas: first, the application of genetic analysis methods to identify aspects of mental functioning; second, the recognition that individual mental functioning has social origins; and third, the emphasis on the mediated nature of human actions (Shabani, 2016). The concept of social mediation was later developed to conceptualize the sociocultural approach to writing studies, with activity theory receiving particular attention (Haneda, 2007). Sociocultural factors are crucial, as children develop within specific cultural contexts, and these factors must be highlighted (Lee, 2020). Lantolf and Thorne (2006) identified mediation and internalization as critical concepts for L2 acquisition, as cultural concepts are learned meaningfully through these processes (Lee, 2020). Drawing on activity theory, Lee (2020) explored the writing strategies of Korean university students, using data collected through questionnaires, interviews, process logs, and stimulated recalls. The study involved 10 participants, divided into two groups: those with and without study abroad experience. The results indicated that study abroad experience influenced the writing strategies employed by the students.

Following Vygotsky, a wide range of social and cultural factors was suggested to contextualize writers' practices (Riazi, 1997; Schneider, 2022). Shen et al. (2024) examined the challenges and resources faced by seven thesis candidates, noting differences between L1 and L2 students. L1 students based their writing choices on ideology, while L2 students aimed to fit in and relied more on language resources. Both groups depended on supervisors for guidance, though this support was sometimes lacking. The study, framed within sociocultural theory, offers insights for supervisors and instructors. Schneider (2022) argued that writing strategies develop uniquely and are selected based on different circumstances. Schneider (2022) argued for a broader perspective on students' writing actions, beyond Vygotsky's sociocultural paradigm, to understand their pursuit of academic success. Schneider's study explored university students' writing strategies from a socially situated perspective, using a qualitative approach. Analyzing transcriptions of seven students' work with a self-designed coding scheme, the study identified three main writing strategies: survival, investment, and growth. Most participants used survival strategies in their writing courses, while investment and growth strategies were applied in shaping career plans. The study concluded that as learners' identities develop, so do their writing strategies, emphasizing the need for

educators to support both identity and writing skill development.

According to Schneider (2022), three dimensions of writing strategies can be identified in achieving writing success. Survival strategies involve passing a course or getting good grades. Perceptions of writing success as survival vary depending on whether the student is a low achiever or a high achiever. For example, a barely passing grade may represent survival for a low achiever, while a high achiever might aim to complete an irrelevant assignment quickly to focus on more significant goals. Investment strategies are defined as efforts made by writers to develop their characteristics. In academic writing, behaviors may seem unimportant, as the content represents the writer's background and experiences. The final dimension, growth strategies, includes efforts to improve as a writer, with the belief that better writing skills can lead to better career opportunities.

Gender and L2 Writing

The influence of gender on learners' writing proficiency and use of writing strategies remains contentious (Fidelia, 2015; Kamiar et al., 2012). Block (2002) argued that gender is a social construct, with the term "gender" itself reflecting the social and cultural expectations imposed by society (Kamiar et al., 2012). Several studies have examined gender as a factor in students' writing proficiency and strategy use (Bai et al., 2014; Bai et al., 2020; Bijami et al., 2013; Fidelia, 2015; Mortaji, 2019; Mutar and Nimehchisalem, 2017), but the findings have been mixed (Bai et al., 2014; Bai et al., 2020). Under the framework of Self-Regulated Learning (SRL), Hutt (2001) found that female students tended to produce more correct and complex sentences than male students. However, as they enter the job market, male adults often make significant progress in writing, highlighting the importance of socialization in development. Odo (2004) noted that women, who tend to mature earlier both physically and psychologically, generally demonstrate better understanding and more aesthetic verbal expressions, leading to superior writing performance compared to men. In Taiwan, Hsu (2007) found that female primary students used writing strategies more frequently than their male counterparts, particularly in social strategies. Bai et al. (2020) investigated the effects of gender, performance, and grade level on Hong Kong primary students' use of SRL writing strategies, finding that gender, writing performance, and grade level significantly impacted strategy use, with further interactions between gender and grade level.

However, some studies did not find a significant relationship between gender and L2 writing strategies. For instance, Bodunde (2001) found no significant differences between female and male learners in terms of writing motivation or performance. Fidelia (2015) conducted a quasi-experimental study on the effects of gender on students' English essay writing and found that instructional methods had a greater impact on writing performance than gender. Similarly, Fattahi and Nushi (2021) explored the impact of gender and language proficiency on metaphor use in L2 writing, finding that while upper-intermediate students outperformed intermediate students, gender did not influence metaphor use.

In Taiwan, the implementation of the bilingual education policy has prioritized enhancing English proficiency as a key goal for internationalization (Feng, 2024, 2025; NDC & MOE, 2020). However, with over 10,000 high school students scoring zero on the entrance exam, there is a critical need for effective instructional methods to

bridge the gap in English writing skills as students' transition to college (Lee, 2020). To address this educational shortfall, a deeper understanding of college students' writing strategies, particularly through a sociocultural lens, is essential (Schneider, 2022). By applying sociocultural perspectives, educators can better comprehend the contextual and cultural factors influencing students' writing, thereby developing more targeted and effective teaching strategies. This study specifically aimed to explore the writing strategies of Taiwanese EFL college students within a sociocultural framework. Differences in students' strategies were analyzed by examining the decisions they make during the writing process. Additionally, this study investigated gender differences in writing strategies to compare and contrast with findings from previous research. The following research questions guided this inquiry:

Q1: What types of L2 writing strategies do EFL English major college students employ?

Q2: Can gender effectively predict EFL English major college students' use of writing strategies?

Q3: What are the key factors influencing English major students' writing strategy use?

Method

Participants

The present study adopted a purposeful sampling strategy. The participants in this study were sophomore university students from English departments in Taiwan. By their second year, they had typically completed two semesters of *English Composition I*, a course requiring 4 to 6 credits. These courses focused on developing academic writing skills, including argumentation, critical analysis, and genre-specific writing. Students were generally required to complete at least four written assignments per semester, ranging from essays and reports to reflective or creative writing tasks. Additionally, some universities administered writing proficiency tests to assess students' progress and ensure they met departmental writing standards. Sophomore students were chosen as participants because they had already gained experience in academic writing and could provide informed perspectives on their coursework. Furthermore, many of them would be required to take *English Composition II* in the following year, making their insights particularly relevant. This study aimed to explore students' writing strategies and preferences, offering insights that could inform instructional practices in higher education.

A total number of 765 responses were collected. After removing invalid responses, such as those with identical ratings for all items or incomplete each section, 692 valid responses remained for analysis. Among the participants, 308 identified as female, 358 as male, and 26 as other genders. The sample included 364 students from public schools and 328 from private schools. Geographically, 179 participants were from northern Taiwan, 136 from the south, 239 from the central area, and 138 from the east. Table 1 summarized the demographic information of the participants.

Table 1. Demographic Information of Participants

Variables		Frequency	Percentage
Gender	Male	308	44.5%
	Female	358	51.7%
	Others	26	3.8%

Variables		Frequency	Percentage
School type	Public	364	52.6%
	Private	328	47.4%
School location	North	179	25.9%
	South	136	19.7%
	Central	239	34.5%
	East	138	19.9%
Total			100%

Instrument

Following the guidelines of Krosnick and Presser (2010), a Chinese version of the online questionnaire was designed and implemented to collect data for this study. The questionnaire comprised four sections. The first section included an informed consent form, allowing participants to proceed by clicking the “Agree” button or exit by selecting “Disagree” after reviewing the study’s purpose. The second section, adapted from Schneider’s (2022) qualitative results, focused on socially based writing strategies. It featured a 15-item writing strategy scale designed using a 4-point Likert scale to minimize central tendency bias (Garland, 1991). The third section contained two open-ended questions aimed at eliciting factors influencing participants’ writing strategy choices. As recommended by Reja et al. (2003), open-ended questions in online questionnaires help capture diverse responses but should be clearly worded to ensure participant comprehension. The first open-ended question explored how English majors complete their writing tasks, while the second examined the factors influencing their choices. The final section collected demographic information while ensuring participants felt secure when responding. Additionally, each email address was restricted to a single submission to enhance data validity and representativeness.

Data Collection Procedure

This study aimed to collect data from sophomore English majors in Taiwan using three data collection measures. First, the online questionnaire was shared in Line groups called “Questionnaire Support Group,” which included college students seeking assistance with their final projects. To encourage participation and ensure a representative sample, the researcher actively engaged with group members by completing their questionnaires and asking them to reciprocate by filling out and sharing the study’s questionnaire. Additionally, three college students from the central area were recruited to assist with data collection by emailing the questionnaire to their classmates and friends.

Data Analysis Procedure

Both quantitative and qualitative data were collected through the online questionnaire, and two distinct data analysis methods were employed. For quantitative data, SPSS 26 was used for analysis. To address research question one, descriptive statistics were calculated, including mean scores and standard deviations, to examine

differences among writing strategies. To address research question two, ordinal logistic regression (OLR) was conducted to determine whether gender was an effective predictor of EFL university students' writing strategy selection. This method treated the scale responses as categorical variables to minimize bias in the results.

For the qualitative data related to research question three, content analysis was conducted in multiple stages, including coding, categorization, description, and interpretation (Patton, 2002). In the coding stage, the researcher examined students' responses to the open-ended questions and identified key units of meaning. To categorize these units, Schneider's (2022) qualitative framework was applied to the first open-ended question, while Vygotsky's (1978) Sociocultural Theory (SCT) guided the categorization of responses to the second open-ended question.

Schneider's (2022) framework included survival, investment, and growth strategies. Vygotsky's (1978) SCT framework encompassed key concepts such as social interaction, the zone of proximal development (ZPD), the relationship between language and thought, scaffolding, cultural norms and values, and community and practice.

In the description stage, the researcher provided detailed accounts of students' statements. In the interpretation stage, the researcher analyzed the data by explaining the findings, drawing conclusions, making inferences, and identifying connections. Table 2 summarizes the analytical approaches used to address the three research questions. To enhance the reliability and validity of the content analysis, two additional researchers reviewed the process. The inter-rater reliability was $r = .84$, indicating an acceptably high level. Further details on the validity and reliability of the questionnaire were provided in the next section.

Table 2. The Analysis Approaches for Three Research Questions

Research Questions	Analysis approaches
RQ1	Descriptive analysis
RQ2	Ordinal Logistic Regression
RQ3	Content Analysis

Validity and Reliability

The validity and reliability of the questionnaire were established through multiple measures. To ensure validity, qualitative findings from Schneider's (2022) study, published in a high-quality journal, were incorporated. Additionally, a senior scholar in L2 writing reviewed the questionnaire content, and modifications were made based on their feedback. For example, the phrase "get help" was replaced with "seek" to enhance clarity and appropriateness. These two steps contributed to the content validity of the questionnaire.

To establish structural validity and reliability, two statistical analyses were conducted. First, exploratory factor analysis (EFA) was performed using responses from 151 EFL Taiwanese college students to examine factor loadings. Principal Axis Factoring (PAF) was chosen for factor extraction due to its stability with small sample sizes. As shown in Table 3, all items demonstrated desirable factor loadings, supporting the questionnaire's structural validity. Second, confirmatory factor analysis (CFA) was conducted using AMOS 22 with a sample of

149 EFL college students. The analysis yielded a chi-square value (χ^2) of 187.583 with 87 degrees of freedom (df), resulting in a χ^2/df ratio of 2.156.

The Goodness of Fit Index (GFI) and the Adjusted Goodness of Fit Index (AGFI) were 0.859 and 0.806, respectively, while the Root Mean Square Error of Approximation (RMSEA) was 0.088, and the Comparative Fit Index (CFI) reached 0.943. Although the GFI and AGFI values were slightly below the conventional threshold of 0.9, most indices remained within acceptable ranges. Browne and Cudeck (1993) suggested that an RMSEA value between 0.05 and 0.08 indicates good fit, while values between 0.08 and 0.1 suggest fair fit. The RMSEA of 0.088 in this study suggests a fair model fit, indicating that the questionnaire maintains an overall acceptable level of validity and reliability.

Table 3. Results of EFA for Validating the L2 Writing Strategy Scale

Item numbers	Components		
	1	2	3
1	.872	.143	.324
2	.589	.1	.219
3	.726	.106	.282
4	.827	.128	.275
5	.646	.109	.303
6	-.115	.705	.023
7	-.072	.776	-.068
8	-.141	.708	-.033
9	-.151	.704	.019
10	-.226	.855	.076
11	-.302	-.099	.489
12	-.389	-.089	.702
13	-.433	-.039	.632
14	-.315	-.074	.835
15	-.184	.031	.428

*Note: N = 151

Results

The quantitative and qualitative results are presented separately in the following paragraphs. The quantitative results are shown first, using figures, tables, and descriptive analysis. The qualitative results follow, highlighting key themes, quotes, and important keywords.

Quantitative Results

After calculating the mean scores and standard deviation values for each dimension, the descriptive results were

presented in a figure to address research question one. As shown in Figure 1, the survival strategy ($M = 3.199$; $SD = .286$; 42.19%) was the most frequently chosen by Taiwanese English majors. The growth strategy ($M = 2.419$; $SD = .369$; 31.9%) followed as the second most popular choice, while the investment strategy ($M = 1.965$; $SD = .374$; 25.91%) was the least selected.

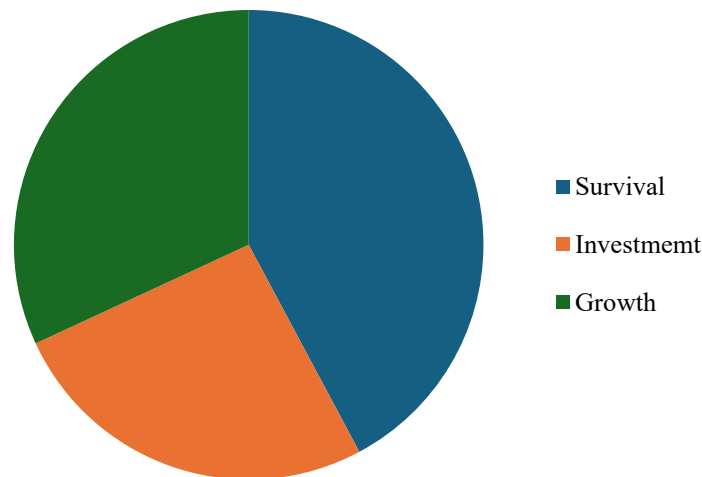


Figure 1. Comparisons of Writing Strategies

OLR was performed to address research question two. Students' gender was used as predictor to predict three sets of mean scores of writing strategy. The analysis presented the effects of gender on three variables, including survival, investment, and growth. For the survival variable, the results showed that both male and female participants exhibited negative estimates, with the estimate for males being -0.698 and for females, -0.735. The Wald statistics indicated a marginally significant difference for females (Wald = 4.105, $p = 0.043$), suggesting that gender might have a moderate impact on the survival variable, particularly for females. The confidence intervals for both male and female estimates overlapped 0, indicating some uncertainty in the strength of this effect.

Regarding the investment variable, both male and female participants showed negative estimates, -0.052 and -0.280, respectively. However, neither result was statistically significant (male: Wald = 0.021, $p = 0.885$; female: Wald = 0.613, $p = 0.434$), indicating that gender did not have a significant effect on the investment variable.

For the growth variable, both male and female estimates were also negative, with males having an estimate of -0.631 and females -0.456. The Wald statistic for males was marginally significant (Wald = 2.929, $p = 0.087$), but it did not reach conventional significance levels ($p > 0.05$). Similarly, the result for females (Wald = 1.605, $p = 0.205$) was not significant, indicating that gender did not significantly influence the growth variable.

Overall, the findings suggested that while there were some marginal effects of gender on the survival and growth variables, these results were not strong enough to draw firm conclusions about the influence of gender across the three variables.

Table 4. Results of OLR

Variable	Gender (Estimate)	Std. Error	Wald	Sig.	95% Confidence Interval	Pseudo R-Square (Cox & Snell)	Pseudo R- Square (Nagelkerke)	Pseudo R- Square (McFadden)	Model Fit (Chi- Square)	Sig. (Model Fit)	
Survival	(Male)	-0.698	0.364	3.672	0.055	(-1.413, 0.016)	0.006	0.006	0.002	3.996	0.136
	(Female)	-0.735	0.363	4.105	0.043	(-1.445, -0.024)					
Investment	(Male)	-0.052	0.359	0.021	0.885	(-0.755, 0.652)	0.004	0.004	0.001	2.979	0.226
	(Female)	-0.280	0.357	0.613	0.434	(-0.980, 0.420)					
Growth	(Male)	-0.631	0.367	2.929	0.087	(-1.354, 0.092)	0.005	0.005	0.002	3.459	0.177
	(Female)	-0.456	0.358	1.605	0.205	(-1.154, 0.242)					

*Note: gender identified as others was set to zero because it is the reference group.

Qualitative Results

After the analysis of the students’ responses, three strategic approaches were identified, including survival, investment, and growth. The application of each strategy, along with the factors influencing students’ decisions, was presented below.

Dominant Adoptions of Survival Strategies and Influencing Factors

Out of 692 students, 279 were classified as adopting the survival strategy. Among them, 159 students reported seeking help from friends to complete their writing tasks, 66 students tried to anticipate what their instructors would prefer to read, and 57 students used online resources, such as blog articles, online discussion forums, and ChatGPT. Additionally, 211 students focused on the scoring criteria when completing their English writing tasks.

The factor included a lack of free time, reluctance to write, uncertainty about what to write, and limited opportunities for presenting personal arguments. These factors were associated with negative writing attitudes toward completing the writing tasks, resulting from lack of social interaction, writing support, and cultural norms. Table 5 presents selective responses to illustrate these descriptions.

Table 5. Selective Responses for Adopting the Survival Strategy and its Influencing Factors

Student number	Question one	Question two
S2	I ask my friends what they write to get some ideas, and then I reconstruct those ideas into my own work. Once it’s done, I review the work by	I have a part-time job to make ends meet, so I don’t have much time for this. However, if I write within the limited time, my score may be poor, and I might fail .

Student number	Question one	Question two
	checking it against the scoring criteria .	This approach works well because my friends and I share similar scores.
S9	Almost every time, I ask my bestie what to write. Her English writing ability has been praised by the teacher, so I believe I can achieve acceptably good scores by imitating her work , and she doesn't mind helping me.	I don't have time to think about what to write. If I spend too much time on writing, I won't be able to do other things . I don't enjoy writing either .
S77	I input the scoring criteria and required topics into ChatGPT . It's efficient , and the scores I received were favorable.	I believe the instructor only wants to see what aligns with their expectations. If I try to argue for my writing and my ideas, they would simply insist on making changes .

Moderately High Adoptions of Growth Strategies and Influencing Factors

Out of 692 students, 218 were classified as adopting growth strategies. Among them, 105 students reported seeking help from friends to improve their writing skills, 106 students mentioned applying what they had learned in class, such as writing models or techniques, and 7 students highlighted the importance of teachers' feedback.

The factors influencing the adoption of this strategy included opportunities for collaborative activities, clear teaching steps and structures, and a requirement to improve. These factors were associated with positive writing attitudes, which stemmed from effective social interaction, the ZPD, and cultural expectations. Table 6 presented selective responses that illustrate these findings.

Table 6. Selective Responses for Adopting the Growth Strategy and its Influencing Factors

Student number	Question one	Question two
S16	I always take notes during writing class, and these notes help me complete tasks more quickly while also improving my writing skills.	I find the teacher's teaching method very clear , with a step-by-step approach. It would be surprising if anyone did not show improvement.
S208	I pay close attention to the teacher's feedback , which helps me improve and makes it easier to write in English.	As an English major , I know I will be criticized if my writing isn't up to standard. Therefore, I have to ensure it's good .
S513	I will ask my friends for suggestions on how to improve . While I may read their writings, it's not to copy; it helps me develop a clearer understanding of what good writing looks like.	The teacher often asks us to do peer reviews and provide suggestions. The teacher also encourages us to learn from our classmates .

Relatively Fewer Adoptions of Investment Strategies and Influencing Factors

Out of 692 students, 170 were classified as adopting investment strategies. Among them, 86 students reported incorporating their personalities into their writing, while 84 students mentioned connecting their writing topics to personal interests.

The factors influencing the adoption of this strategy included the desire for self-expression and recognition. These factors were associated with engaged writing attitudes, shaped by the relationship between language and thought, as well as engagement in a community of practice. Table 7 presents selective responses that illustrate these findings.

Table 7. Selective Responses for Adopting the Investment Strategy and its Influencing Factors

Student number	Question one	Question two
S44	When I see the topic, I immediately get a sense of what to write, <u>relying on my personality</u> to guide me. I always <u>strive to set things straight.</u>	I express my true opinions in my writing, and it <u>reflects who I am.</u> When people read my work, they can <u>recognize that it's mine.</u>
S136	I enjoy <u>incorporating my favorite</u> Korean boy band into all of my writing. For example, I might discuss teamwork and the effort they put into becoming idols.	I can write more, and the teacher will <u>recognize my writing as mine.</u> I can also <u>share the writing</u> to friends who also like them.
S656	I write whatever comes to mind in the moment. There are <u>certain words</u> I particularly like to use, such as "openly," which may <u>reflect my personality.</u>	Writing should be a way to <u>express my true opinions,</u> so I don't want to fake it by writing generic content. When someone reads my work, they should <u>feel or know something about me.</u>

Discussion

The findings of this study revealed that most Taiwanese English majors adopted survival strategies, with key influencing factors identified. Additionally, gender was not a significant predictor of writing strategy selection. From a sociocultural perspective, three critical issues merit discussion.

First, the dominant use of survival strategies aligns with Schneider's (2022) findings, which suggest that freshmen primarily complete writing assignments as a means to fulfill requirements rather than to develop their skills. This trend supports the sociocultural theory proposed by Martin (1993) and Martin and White (2005), which views writing as a socially goal-oriented activity. Moreover, Taiwan's test-driven educational environment remains a major influence, potentially fostering negative emotions among students and shifting their focus away from meaningful learning through writing (Huang, 2012; Timina, 2021). This was further explained by Schneider's

(2022),

“L2 writers’ uses of survival strategies should never be understood as efforts to compensate for some deficit, or as indications of an inherently cynical approach to education. Rather, the institutional conditions within which they find themselves often promote such behaviors, if implicitly through naturalized reward systems such as grades” (p. 248)

Second, a moderately high number of students adopted growth and investment strategies, suggesting that writing strategy selection is dynamic and fluid. This aligns with Han’s (2017) study, which found that writing strategies are not mutually exclusive. In contrast, this finding challenges Schneider’s (2022) conclusion that students improve their writing simply by enduring their first writing courses. Although this study did not explicitly capture the full complexity of strategy selection, the results support sociocultural theory, particularly as reflected in responses to open-ended questions. Third, gender was not found to be a significant predictor of writing strategy selection, a result consistent with Fattahi and Nushi (2021) but contradictory to Bai et al. (2020) and Hsu (2007). This further reinforces sociocultural explanations, suggesting that writing strategy choices are shaped more by contextual and experiential factors than by fixed individual traits.

Building on the previous discussions, three types of mediation were identified in students’ writing strategy selection: tool-based mediation, social mediation, and institutional and cultural mediation.

Firstly, tools played a crucial mediating role in students’ writing processes. Qualitative responses revealed that many students relied on generative AI tools such as ChatGPT, as well as pre-existing templates shared by peers, to complete their writing tasks. These tools provided structural guidance and linguistic support, helping students manage their assignments more efficiently. However, such reliance also raises concerns about students’ ability to develop independent writing skills and critical thinking, as they may prioritize task completion over meaningful skill development. Rather than discouraging the use of these tools, Shen et al. (2025) argued that technology can serve as a valuable resource for providing EFL learners with authentic experiences related to writing topics. When appropriately integrated into the classroom, AI tools and other digital resources can facilitate deeper engagement with writing tasks, promote critical thinking, and enhance language acquisition. As Hsu (2024) suggested, this heightened metacognitive awareness refers to students’ increasing ability to think about and regulate their own learning processes, such as identifying gaps in their knowledge and understanding how they approach tasks. As a result, they are better equipped to set specific goals for their learning. This awareness allows student writers to become more intentional about their objectives, making them more goal-oriented, which aligns with the characteristics of self-regulated learning (SRL) as defined by Zimmerman (2002). By shifting the focus from mere completion to active learning, instructors can harness technology to create positive mediation, fostering a more balanced and constructive approach to writing development.

Secondly, social interaction as mediation played a crucial role, particularly among students who adopted survival and growth strategies. Many students reported that they sought helps from friends or engaging in peer feedback activities to overcome writing challenges. This aligns with Vygotsky’s (1978) concept of the ZPD, which

emphasizes that learning occurs through guided interaction with more knowledgeable peers. Through scaffolding and collaborative learning, students refined their writing skills, demonstrating that social support is essential in shaping their writing development (Lantolf et al., 2018). Zhang and Zhang (2023) further supported this perspective and highlighted that learners' writing skills improve significantly through "dialogic, collaborative negotiation over errors" between teachers and students. This process not only helps learners recognize their mistakes but also deepens their understanding of writing conventions and strategies. Additionally, Lantolf (2024) strongly advocated for the incorporation of explicit instruction in L2 writing pedagogy, arguing that direct guidance, combined with collaborative learning, can maximize students' writing development. These findings suggest that while peer interaction is valuable, structured teacher involvement can further enhance the effectiveness of social mediation in writing instruction.

Thirdly, institutional and cultural factors played a crucial role in shaping students' strategy choices. Taiwan's traditional education system, which heavily emphasizes standardized testing and structured curricula, has remained a dominant influence on students' learning priorities and approaches to writing. Within this system, the investment strategy—which views learning a language as an investment in both linguistic competence and social identity, evolving over time and across contexts (Norton, 1997)—may be discouraged. Instead, students often adopt the survival strategy as a pragmatic response to academic pressures, prioritizing task completion over deeper engagement with language learning (Huang, 2012; Timina, 2021). When institutional frameworks emphasize test performance over authentic learning, students may feel compelled to focus on short-term success rather than long-term growth and identity development. This highlights the significant influence of broader educational and cultural contexts on students' motivation and engagement in writing. To foster a more balanced approach—one that integrates academic achievement with personal identity development—educational reforms should promote alternative assessment methods. For alternative assessment methods, peer assessment enables students to receive constructive feedback from their peers, encouraging critical self-evaluation and revision. This process not only enhances their writing skills but also fosters metacognitive awareness and self-reflection (Chan et al., 2020; Eang et al., 2025).

Overall, these findings highlight how writing strategies are not merely individual choices but are deeply embedded within technological, social, and institutional influences. Recognizing these mediators provides valuable insights for educators aiming to foster a more supportive and skill-oriented writing environment.

Conclusion, Limitations, and Suggestions

The present study aimed to explore the English writing strategies employed by Taiwanese English majors, using a self-validated online questionnaire. Additionally, the study sought to identify the factors that influence these strategy decisions and examine whether gender acts as a significant predictor of writing strategy choice. The findings revealed that the survival strategy was the most frequently used, followed by the growth strategy, while the investment strategy was the least preferred. Qualitative responses indicated that the factors shaping these strategic choices were consistent with the principles of Sociocultural Theory (SCT). Finally, gender was not found to be a significant predictor of writing strategy choice, possibly due to the shared cultural mediation described in

Vygotsky's (1978) work.

Despite the insights gained from this study, two major limitations should be noted. First, the study primarily focused on English majors, which was a logical choice given that nearly 95% of these students are required to take English writing courses. However, this focus excluded other EFL learners enrolled in English writing courses, thus missing a more complex phenomenon that could have led to a broader analysis. Second, due to the absence of interview data, the study was unable to capture the dynamic nature of writing strategy choices. Considering that cultural context may mediate these decisions, further exploration of this dynamism could provide deeper insights into students' writing strategy choices.

While limitations in this study can serve as directions for future research, two key suggestions are further proposed. First, recent studies have emphasized the potential synergy between Sociocultural Theory (SCT) and intelligent computer-assisted language learning (Ai & Lu, 2018). A promising area for future research could involve exploring how large language model-based generative AI systems, such as ChatGPT, can be leveraged in concept-based language instruction (CBLI) (Poehner & Lu, 2024). Second, by incorporating multiple data sources and conducting in-depth analysis, future research could further advance and refine SCT, ensuring it aligns with the current characteristics of the educational landscape and emerging phenomena.

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During the preparation of this article, the authors did not use ChatGPT.

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