

# *Writing Self-efficacy and Writing Strategies of Non-English Major Students*

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**Keywords:** Writing Self-efficacy, Writing Strategies, Non-English Major Students

**Abstract:** With 394 college students as subjects, this study used t test, correlation analysis and ANOVA to explore the relationship between self-efficacy and English writing strategies of non-English major college students of different genders and majors. The conclusions are as follows: (1) Non-English major students with high self-efficacy in English writing have a higher level of writing strategies than those with low self-efficacy in English writing, and there is a significant moderate positive correlation between self-efficacy and English writing strategies. (2) Gender and professional differences in English writing strategies are as follows: female college students have significantly higher self-efficacy and English writing strategies than male college students. The use of English writing strategies by liberal arts students is significantly higher than that of science students. There is no significant difference in English writing efficacy among students of different majors. The interaction between gender and major was not significant.

## 1. Introduction

Self-efficacy refers to people's judgment of their ability to achieve a certain level of tasks, which affects the choice of activities, the amount of effort paid and the persistence of actions. A large body of evidence has shown that people's judgments about what they can accomplish are powerful determinants of their behavior. It acts as a mediator between recognized behavioral influences (e.g., skills, abilities, strategies) and subsequent operational performance. Shunk Gunn's research found that self-efficacy exerts an indirect influence on academic performance by influencing learning strategies [1]. In the field of writing, the influence of self-efficacy on writing performance has also been demonstrated.

At the same time, the relationship between writing self-efficacy and writing strategy is also two-way. Studies have shown that teachers consciously teaching writing cognitive strategies to students can also effectively improve their self-efficacy.

Although there have been some foreign research results on the relationship between writing self-efficacy and writing strategies, it is worth noting that most of the foreign research results were obtained from studies on English writing under the background of native English speakers, and cannot fully explain the relationship between English writing self-efficacy and writing strategies under the background of native Chinese speakers. However, Chinese studies tend to interpret the

self-efficacy of English learning as the self-efficacy of English writing, and only use the self-efficacy questionnaire of general English learning to measure the self-efficacy of writing. Therefore, this paper attempts to explore the relationship between writing self-efficacy and writing strategies among non-English majors of different genders, majors and grades.

## 2. Review of Literature

### 2.1. Writing self-efficacy

The relevant researches on self-efficacy in English writing at home and abroad can be roughly summarized into two aspects: First, the theoretical discussion on self-efficacy in English writing. The research contents mainly include the theoretical discussion of self-efficacy in writing, the application of self-efficacy theory in writing teaching and the enlightenment obtained from it. Si (2000) introduced the theoretical basis and empirical research status of self-efficacy in writing at home and abroad, and proposed that we should pay attention to both strategic teaching and the cultivation of students' self-efficacy in teaching [2]. Zhang (2008) pointed out in the enlightenment of self-efficacy theory on high school English writing teaching that teachers can improve students' writing level by cultivating their sense of English writing efficacy [3]. Zhou (2017) analyzed college students' self-efficacy in English writing in order to improve their English writing teaching level. Second, an empirical study on self-efficacy in English writing [4]. Most scholars mainly investigate the current situation of self-efficacy in English writing, explore relevant studies on self-efficacy in English writing and writing strategies, writing skills, and writing scores, and actively explore innovative teaching models, teaching methods, learning styles and strategies to cultivate students' self-efficacy in English writing for empirical research. Here, we will focus on the second aspect.

Foreign studies on self-efficacy in English writing mainly focus on the differences in variables such as gender and age, and the relationship between self-efficacy in English writing and writing strategies.

Gender and age are different in writing self-efficacy. Pajares (1995) believes that there are gender and age differences between male and female students in writing self-efficacy [5]. Pajares and Johnson (1996) studied the writing self-efficacy of high school students and found that there was little difference between male and female students in writing achievement, but female students had higher self-efficacy than male students [6].

Domestic scholars have also made active exploration of self-efficacy in English writing, mainly focusing on the following three aspects: measurement and investigation of the current situation of self-efficacy in English writing; research on the correlation between self-efficacy in English writing and variables such as English writing achievement, writing motivation and writing anxiety in independent writing ability; research on the cultivation of self-efficacy in English writing.

Yan (2012) conducted a questionnaire survey on English writing self-efficacy of general high school English majors and self-test takers, and found that their overall level of self-efficacy was not high, and there was no significant difference between male and female students [7]. Li Hang (2014) compiled a scale of college students' self-efficacy in English writing with good reliability and validity on the basis of literature review [8]. This scale covers two elements of writing skill efficacy and writing task efficacy, with a total of 18 items, which is very conducive to further research on college students' self-efficacy in English writing. Feng (2015) used questionnaires, writing tests, interviews and other tools to explore the current situation of English majors' writing self-efficacy and the differences between high and low grades [9]. The results showed that English majors' writing self-efficacy was generally at a moderate level, and their writing task efficacy was slightly higher than their writing skill efficacy. There are significant differences in writing efficacy between

high and low grades. Wu (2017) took vocational college students as the research object to investigate and study their self-efficacy in English writing, and found that vocational college students' self-efficacy in English writing was at a moderate level [10].

Tang and Xu (2015) Writing self-efficacy is significantly correlated with writing performance in both native and foreign language writing [11]. Chen (2013) found that the overall situation of high school students' self-efficacy in English writing was general, and there was a significant positive correlation between English writing efficacy and English writing performance [12]. Li (2018) explored the relationship between writing anxiety and writing self-efficacy of college English majors by taking 159 English majors from the first to the third year as the survey objects. The results showed that writing anxiety and writing self-efficacy of college English majors were at a moderate level, and writing anxiety and writing self-efficacy were significantly negatively correlated [13].

Domestic scholars and teachers are also actively exploring ways to cultivate students' self-efficacy in English writing by changing teaching methods or teaching models. Meng (2011) adopted the experimental method and took college students as the research objects, and found that the mixed teaching method was more conducive to the cultivation of self-efficacy in English writing than the traditional teaching method [14]. Wu (2013) conducted an empirical study on 175 non-English major college students in college English writing, and the results showed that peer assessment was conducive to the improvement of college students' self-efficacy in English writing [15].

## 2.2. Writing Strategies

Researchers at home and abroad have defined language learning strategies from different perspectives. Oxford divided learning strategies into direct strategies and indirect strategies, the former including memory strategies, cognitive strategies and compensation strategies, the latter including metacognitive strategies, emotional strategies and social strategies. Some researchers divided second language learning strategies into metacognitive strategies, cognitive strategies and social/emotional strategies.

It was found that the strategies often used by students were replacing uncertain words with familiar words, concentrating their attention, checking mistakes after writing, etc., while the strategies rarely used were asking for help from teachers or classmates, imitating model writing, and revising compositions after writing. According to Oxford's learning strategy framework, Yan (2011) analyzed the English writing strategies of non-English major college students. The questionnaire data showed that the students most often used compensation strategies and metacognitive strategies, and the social and emotional strategies were least commonly used [16].

When studying learning strategies, foreign scholars put forward the problem of applying strategies to teaching, and writing strategies are no exception. Cohen's (2000) empirical research shows that systematic training of writing strategies can help learners improve their language writing skills [17]. The results showed that after the experiment, the writing performance of the experimental group of students improved. After the questionnaire survey, the students said that they accepted the writing strategy and changed the original writing method. They use dictionaries selectively, write more carefully, and prefer to write independently. Research shows that the training of writing strategies can improve students' English writing.

Zhang (2015) quantitatively analyzed the relationship between the use of strategies and the writing level of English majors through questionnaire survey, recording and interview [18]. A case study is used to compare the differences between successful and unsuccessful English writing strategies. It is found that they have significant differences in article conception, writing focus and

article revision. This study can be regarded as the first quantitative research on writing strategies in China, and the research results also confirm some of the research results of foreign scholars, that is, students generally lack writing ideas and other strategies. Subsequently, some domestic studies also carried out similar studies for different research objects.

Xu (2016) used qualitative research methods to compare the differences in metacognitive knowledge between five successful and unsuccessful English writers. The results show that the metacognitive knowledge such as "subject", "task" and "strategy" of successful writers is obviously stronger than that of unsuccessful writers. The former is stronger than the latter in the use of writing strategies and writing behavior. At present, there are many researches on metacognitive strategies, such as writing metacognitive strategies, especially prewriting plans and Outlines. The general conclusion is that the knowledge of pre-writing metacognitive strategies and the activation of writing pattern knowledge can effectively improve the quality of students' writing products and even cultivate their writing thinking ability.

Liu (2018) tested the relationship between English writing efficacy and the use of writing strategies among first-year non-English majors and their predictive effect on writing scores by quantitative means, and further compared the differences between learners with high or low efficacy in the use of writing strategies and even writing scores .

### **3. Method**

#### **3.1. Research Design**

This study focuses on the application of English writing strategy questionnaire and writing self-efficacy questionnaire in 394 students from a university in Hefei, Anhui province. Using questionnaire as a research tool, this paper investigates the use of English writing strategies and the level of writing self-efficacy of the subjects.

#### **3.2. Participants**

394 non-English major Chinese students from Xinhua University took part in the study. Xinhua University is a comprehensive university located in a provincial capital city in eastern China, with more than 15,000 students in all grades. There are 233 freshmen and 161 second-year students, of which 203 are male students, 191 are female students, 216 are liberal arts students and 178 are science students.

#### **3.3. Instruments**

The questionnaires have been modified to assist in the investigation. The first part aims to obtain some personal information of the participants, including gender, major and grade. These personal data can be used as an important indicator to examine the relationship between individual variables, writing self-efficacy, writing strategy and writing motivation.

The second part is questionnaire 1- Writing self-efficacy of non-English majors, based on the writing self-efficacy scale. There are 26 items in the questionnaire, which measure the confidence and grasp of each English writing task (8 items), the confidence in using English writing skills (10 items) and the factors affecting the self-efficacy of English writing (8 items).

The third part is Questionnaire 2-- English writing strategies of non-English major students. The questionnaire is divided into three areas with a total of 30 questions.

In order to ensure the reliability of the questionnaire, 20 subjects were randomly selected to complete the questionnaire and conduct a pilot test. Reliability results indicated that these items had

excellent internal consistency levels.

### 3.4. Procedure

The data were gathered through an online software WENJUANXING, through which the questionnaires were sent to the participants directly after the students were informed the data and analysis both were anonymous. Before the investigation, there was an arrangement of pilot test of reliability. After the pilot test, there came the formal data gathering and analysis.

## 4. Result and Discussion

### 4.1. Summary on Writing Self-efficacy

Table 1: Summary on Writing Self Efficacy

Key Result Areas	Composite Mean	VI	Rank
Confidence and Grasp to Complete each English Writing Task	2.48	Sometimes	3
Confidence in using Writing Skills in English	2.53	Often	2
Factors that Affect Self-Efficacy in English Writing	2.71	Often	1
Grand Composite Mean	2.57	Often	
Legend:3.50-4.00=Always;2.50-3.49=Often;1.50-2.49=Sometimes;1.00-1.49=Never			

Table 1 shows the summary of writing self-efficacy. The mean value is 2.57, indicating often of verbal interpretation. The sufficient factors listed in the first place, confidence of writing skill use was the second, and the third rank was the confidence to complete the writing. Table 1 presents that students' self-efficacy in English writing is at the medium level, which is consistent with the research results of Tang Fang and Xu Jinfen (2011). Students have moderate confidence in the process of English writing. English writing is a comprehensive activity, students should not only use vocabulary, grammar and other basic knowledge to write compositions, but also use logical thinking to make the written content reasonable and coherent. Due to the lack of practice, students may not have enough confidence in writing. The average self-efficacy of writing task was 2.71, and the average self-efficacy of writing skill was 2.53, both of which were at the medium level. However, the average score of writing task self-efficacy was slightly higher than the average score of writing skill self-efficacy, indicating that students were more likely to complete different types of English writing tasks. Students can not skillfully use writing skills; Instructors need more training in writing skills.

### 4.2. Summary on Writing Strategy of the Students

Table 2: Summary on Writing Strategy of the Students

Key Result Areas	Composite Mean	VI	Rank
Pre-write	2.57	Often	3
In-write	2.68	Often	1
Writing Revision	2.67	Often	2
Grand Composite Mean	2.64	Often	
Legend:3.50-4.00=Always;2.50-3.49=Often;1.50-2.49=Sometimes;1.00-1.49=Never			

The mean of the grand composite is 2.64 in Table 2, showing the participants apply writing strategies to a medium level. Of the three domains, the first rank is in-write strategies, which

indicated that the students are likely to employ meta-cognitive strategies during handling writing pieces. The above questionnaire results are similar to those of Yu Bo, Huang Ying and Chen Jianping. It is not difficult to find the reasons: first, students have the ability to manage the cognitive process of writing, and can realize the importance of meta-cognitive strategies; Second, students lack confidence in the English level of their peers and do not want to bother teachers to give guidance. Many studies have confirmed the benefits of applying cooperative learning and peer feedback to English writing teaching.

### 4.3. Difference of Responses on Writing Self-Efficacy on Profile

Table 3: Difference of Responses on Writing Self-Efficacy When Grouped According to Profile

Profile Variables	U	p-value	Interpretation
<b>Sex</b>			
Confidence and Grasp to Complete each English Writing Task	18462.000	0.411	Not Significant
Confidence in using Writing Skills in English	18404.500	0.383	Not Significant
Factors that Affect Self-Efficacy in English Writing	18838.500	0.625	Not Significant
<b>Grade</b>			
Confidence and Grasp to Complete each English Writing Task	16691.000	0.062	Not Significant
Confidence in using Writing Skills in English	15833.500	0.008	Significant
Factors that Affect Self-Efficacy in English Writing	17138.500	0.142	Not Significant
<b>Major</b>			
Confidence and Grasp to Complete each English Writing Task	16993.500	0.047	Significant
Confidence in using Writing Skills in English	17154.000	0.065	Not Significant
Factors that Affect Self-Efficacy in English Writing	15815.500	0.002	Significant
Legend: Significant at p-value<c			

Table 3 presented that the different responses when the students are divided according to sex, grade and major. The values of skill use confidence of different grades, writing task confidence of different majors, and writing affecting factors are 0.008, 0.047 and 0.002, Significant at p-value<0.05. This result can be explained as the students in arts major have higher self-efficiency, as well students of sophomores. P-values related writing self-efficacy are all under 0.05 showing that there is no significant difference according gender.

### 4.4. Difference of Responses on Writing Strategy on Profile

The result in Table 4 demonstrates that only pre-write gets 0.045 which is under p-value 0.05, interpreted as significant when the students being divided according to grades. The explanation can be that the different participants of different grades may show different application of writing strategies. The reason is that the second year students can be more sufficient to use strategies since they have learned college English course for more than one year.

Table 4: Difference of Responses on Writing Strategy When Grouped According to Profile

Profile Variables	U	p-value	Interpretation
<b>Sex</b>			
Pre-write	18784.000	0.592	Not Significant
In-write	17531.500	0.096	Not Significant
Writing Revision	19310.500	0.946	Not Significant
<b>Grade</b>			
Pre-write	16535.500	0.045	Significant
In-write	17175.000	0.149	Not Significant
Writing Revision	18204.500	0.614	Not Significant
<b>Major</b>			
Pre-write	17362.000	0.097	Not Significant
In-write	18221.500	0.367	Not Significant
Writing Revision	17993.000	0.266	Not Significant
Legend: Significant at p-value<0.05			

#### 4.5. Relationship between Writing Self-Efficacy and Writing Strategy

Table 5: Relationship between Writing Self-Efficacy and Writing Strategy

Variables	rho-value	p-value	Interpretation
Confidence and Grasp to Complete each English Writing Task			
Pre-write	0.709**	0.000	Highly Significant
In-write	0.607**	0.000	Highly Significant
Writing Revision	0.645**	0.000	Highly Significant
Confidence in using Writing Skills in English			
Pre-write	0.790**	0.000	Highly Significant
In-write	0.736**	0.000	Highly Significant
Writing Revision	0.722**	0.000	Highly Significant
Factors that Affect Self-Efficacy in English Writing			
Pre-write	0.784**	0.000	Highly Significant
In-write	0.727**	0.000	Highly Significant
Writing Revision	0.721**	0.000	Highly Significant
**. Correlation is significant at the 0.01 level			

As can be seen from Table 5, there is a significant positive correlation between writing efficacy and writing strategies. This result is consistent with previous studies. Through correlation analysis, it can be found that there are many factors affecting students' English writing ability. Writing effectiveness, as a key emotional factor, plays an important role in influencing learners' writing strategy use and writing achievement, which provides a new direction for improving the writing ability of lower-level learners. In the teaching process, teachers should not only pay attention to the teaching of writing methods, but also pay attention to the affective factor of learners' writing efficacy.

## 5. Conclusion

Non-english major students with high self-efficacy in English writing have a higher level of writing strategies than those with low self-efficacy in English writing. The differences of English

writing strategies in gender and major are as follows: female college students have significantly higher self-efficacy and English writing strategies than male college students. Among them, in terms of metacognitive strategies, information organization strategies and expression strategies, female college students are significantly higher than male college students. There is no significant difference in English writing efficacy among students of different majors. Liberal arts students are significantly higher than science students in English writing strategies, and liberal arts students are significantly higher than science students in metacognitive strategies, information organization strategies and expression strategies. The interaction between gender and major was not significant.

## Acknowledgements

This research was supported by 2022-2024 Anhui Xinhua University Demonstration Course of "College English" for Ideology and Politics (No. 2022kcszx05); 2022 Anhui Xinhua University Scientific Research Project "A study of multimodal translation of children's picture books under media diversion" (No. 2022rw009); 2021 Anhui Province Quality Engineering Project "Construction of 'First-class Courses' for College English in Applied Universities under CDIO Concept" (2021jyxm0626).

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