

# Quantitative Research on the Effect of Reading-Writing Intervention in the English Paraphrasing Ability Improvement Program for International Novice Writers

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**Abstract:** This study aims to analyze the impact mechanism and effect of reading-writing intervention on students' English writing proficiency through research on the English Reading-Writing Ability Improvement Program for International Novice Writers. Using quantitative research methods, it focuses on changes in participants' language expression ability, text reconstruction skills, and cross-cultural communication awareness after participating in the program. The research finds that interventions based on the input-output theory have significant effects: they not only help improve participants' vocabulary application ability and ability to handle complex sentence structures but also enhance the logical coherence of their discourses. Meanwhile, the intervention improves participants' ability to apply linguistic knowledge, metacognitive monitoring ability, and autonomous learning awareness. Through pre-test and post-test comparisons and writing sample analysis, this study confirms the role of systematic intervention in enhancing participants' comprehensive English writing ability. These findings provide empirical evidence for English writing teaching and theoretical support for promoting the innovation of international writing models.

**Keywords:** International novice writers; English paraphrasing ability; Improvement program; Reading and writing; Intervention effect

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## 1. Introduction

In higher education, academic writing requires effectively integrating others' viewpoints and arguments. Therefore, citing external sources is common in university papers. The ability to use these sources ethically and interact with others' viewpoints in an appropriate manner is a core element of undergraduates' academic literacy. The quality of an author's work is closely related to their proficiency in text borrowing<sup>[1]</sup>. Paraphrasing is an

important part of these skills and poses significant challenges for college students new to academic writing. Failure to master these skills may lead to plagiarism. High-quality paraphrasing, as a key skill, connects reading and writing. Research shows that almost every author faces paraphrasing challenges, whether English is their first language or not, especially novice writers. Therefore, strengthening paraphrasing guidance is necessary to help them succeed and build their learning confidence.

## **2. Research Background and Theoretical Basis**

### **2.1. Dilemmas of Second Language Learners in Paraphrasing**

Academic writing is essentially a form of dialogue, where participants form a discourse community and conduct logical arguments with the help of sources. This type of writing is based on sources, and paraphrasing is an intertextual skill with strong complexity. Writing researchers generally agree that paraphrasing is a complex practice of text borrowing and source use<sup>[2]</sup>. Some scholars argue that a single rewritten sentence, though seemingly simple, may involve a hundred transformation steps, highlighting the complexity of paraphrasing. Paraphrasing is a major challenge for English learners, especially second-language English learners who are new to the academic discourse community. Relevant cases also show that competent paraphrasing requires diverse skills and specialized practice. Second-language English students are increasingly aware of the value of source-based writing, but they are still weak in language expression and citation formatting due to various factors. These findings further illustrate the necessity of implementing paraphrasing guidance<sup>[3]</sup>.

### **2.2. Research Status of Explicit Paraphrasing Guidance**

Writing teachers face numerous challenges in teaching academic texts, such as the intricate connections between texts and the cultivation and development of students' paraphrasing skills. Educators should have a comprehensive and clear understanding of patchwriting, acknowledging its risks while considering teaching scaffolding to strike a balance<sup>[4]</sup>. This challenge is compounded by the lack of consensus among teachers on acceptable text borrowing practices, leading to a significant gap between students' performance and teachers' expectations. Based on this, some scholars advocate for explicit paraphrasing guidance, while others question the status of paraphrasing guidance in standard curricula. Currently, many universities have established their own writing centers to systematically support paraphrasing through online resources and seminars. However, other missions of these centers have overshadowed such support, leading to neglect. The above situation indicates the need to actively explore various complementary methods to raise awareness of cultivating students' paraphrasing skills<sup>[5]</sup>.

### **2.3. Theoretical Basis and Innovations**

This study takes the Input Hypothesis and Output Hypothesis in second language acquisition theory as the theoretical basis to construct an intervention program for reading and writing. The Input Hypothesis holds that students' language ability can be developed through a large amount of comprehensible language input, while the Output Hypothesis emphasizes integrating linguistic knowledge and improving application ability through writing practice. Combining these two theories forms a virtuous cycle: promoting writing through reading and enhancing learning through writing. In addition, the scaffolding concept in sociocultural theory provides insights for intervention design, supporting students' learning through progressive guidance to help them transcend their Zone of Proximal Development. The innovation of this study lies in effectively integrating the "Five-Step

Paraphrasing Method” with the needs of international freshmen and improving their paraphrasing skills through systematic intervention design.

### **3. Research Methods and Design**

#### **3.1. Research Participants**

This study included 18 participants, who were first-year international students from different countries with diverse academic majors<sup>[6]</sup>. Aged between 18 and 20, they met the minimum English proficiency requirements for non-native English speakers at the university. Standardized tests were conducted, and analysis of their scores showed that participants with higher English proficiency could enroll in credit-bearing courses at the institution. During the research, ESL writing instructors provided guidance to the researcher, who conducted auxiliary observations to ensure the smooth and effective implementation of the intervention program.

#### **3.2. Intervention Program Design**

The intervention program was designed with a phased and multi-dimensional approach to make the training process more systematic and progressive. The program included eight 20-minute teaching sessions, embedded as part of regular classroom activities. The training materials adopted the Five-Step Paraphrasing Method: first, understanding the text; second, conducting clustered reading; third, expressing ideas orally; fourth, expressing ideas in writing; and lastly, the step of writing for different audiences. These steps are closely interconnected yet non-linear, allowing learners to adjust their learning progress based on their own situations.

#### **3.3. Data Collection and Analysis Methods**

The intervention effect was evaluated from two perspectives: first, analyzing participants’ performance in structured writing tasks through pre-test and post-test comparisons; second, analyzing draft papers written by participants based on real course prompts. Both pre-test and post-test adopted structured writing tasks with themes such as environmental protection and electric vehicle use, ensuring consistent task difficulty and themes. Unstructured writing tasks mainly included comparative essays and argumentative essays, which are closer to actual writing scenarios. Quantitative analysis was used for data processing, and participants’ paraphrasing ability was evaluated based on dimensions such as lexical features and paraphrasing types using Keck’s (2006) classification framework of paraphrasing types<sup>[7]</sup>.

### **4. Research Results and Analysis**

#### **4.1. Performance in Structured Writing Tasks**

In the pre-test, there were 26 paraphrasing attempts, which increased to 34 in the post-test. The increase in quantity indicates that with the same time limit, participants completed more paraphrasing tasks, proving that the intervention provided effective paraphrasing strategies for learners. Analyzing the quality of paraphrasing, the average length of all rewrites changed from 17.94 words in the pre-test to 21.44 words in the post-test, indicating an improvement in learners’ expression ability. Regarding the distribution of paraphrasing types, “near copy” and “minimal revision” accounted for a high proportion in the pre-test (38.89% and 30.56% respectively). In the post-test, “minimal revision” increased significantly to 64.71%, and “moderate revision” also changed noticeably from 2.78% in the pre-test to 17.65% in the post-test. This change shows that participants could use

more of their own language while preserving the original meaning.

Further analysis revealed that participants in the post-test had stronger text processing ability. They not only understood the main ideas of the original text more accurately but also flexibly applied paraphrasing strategies based on actual situations. In particular, the frequency of general linking words used in the post-test was significantly higher than that in the pre-test, indicating that learners had a deeper understanding of the original text's theme and core concepts. In addition, the standard deviation of paraphrasing attempts in the post-test was smaller, showing that participants' abilities developed in a balanced manner, and the intervention had a positive impact on learners at all levels involved in the research.

## **4.2. Performance in Unstructured Writing Tasks**

A total of 149 paraphrasing attempts were collected in unstructured writing tasks. The analysis shows that the percentages of unique links in comparative essays and argumentative essays were 15.59% and 7.59% respectively, indicating different degrees of dependence on the original text for different genres. Analyzing the paraphrasing types, "minimal revision" and "moderate revision" accounted for the highest proportions in comparative essays and argumentative essays, with 32.61% and 35.09% respectively. In particular, the proportion of substantive revision was higher in argumentative essays (26.32%) than in comparative essays (19.57%), indicating that students were more able to exert their strengths and show higher learning enthusiasm in argumentative writing. This difference is related to the characteristics and requirements of the genres. Comparative essays require presenting more professional terms and specific concepts, so learners tend to retain the original expressions during learning. Argumentative essays focus on learners' expression of personal viewpoints and arguments, providing more space for them to use their own language. The gradual advancement of the intervention program helps improve learners' expression ability and continuously develop their paraphrasing ability through argumentative writing. In addition, the smaller standard deviation in paraphrasing length in argumentative essays fully indicates that learners' expression in this genre is more stable and consistent.

## **5. Discussion and Implications**

### **5.1. Overall Evaluation of Intervention Effects**

The research results show that the reading-writing intervention using the Five-Step Paraphrasing Method has a significant effect on improving the English paraphrasing ability of international freshmen. Learners showed obvious progress in both structured and unstructured tasks. Especially in terms of the distribution of paraphrasing types, they gradually developed from initial dependence and near copying to moderate revision, and finally to substantive revision, indicating that the paraphrasing strategies mastered by the learner group are continuously improving. This progress is reflected in various aspects such as language form, depth of understanding, and expression autonomy. Through strategy training, the intervention helps guide learners to establish a transformation mechanism from reading to writing, which is an important way to improve their academic writing ability.

### **5.2. Teaching Practice Suggestions and Research Prospects**

Based on the research results, it is suggested that second-language writing teaching should strengthen training in paraphrasing strategies. First, scientifically design training content according to the characteristics of different

learning stages, and gradually enable students to master complex discourse reconstruction instead of just simple vocabulary substitution. Second, provide learners with rich practice platforms to try writing in different genres to help them adapt to the requirements of academic writing. In addition, teachers should provide timely feedback on students' works so that learners can fully recognize their strengths and weaknesses in writing and clarify the direction for future improvement. In teaching, attention should also be paid to cultivating and developing learners' metacognitive ability to improve their learning autonomy.

Future research can be deepened from multiple dimensions. First, expand the research sample to include learners from more diverse linguistic backgrounds to enhance the generalizability of the research results. Second, extend the intervention period to conduct long-term tracking of the development trajectory of learners' paraphrasing ability. In addition, adopt a variety of research methods, such as observation and interviews, to conduct in-depth exploration of the factors affecting the development of paraphrasing ability. It should be noted that with the rapid development of artificial intelligence technology, actively exploring the integration path of intelligent writing tools in paraphrasing teaching is a major direction for future research.

## 6. Conclusion

Through systematic quantitative analysis, this study confirms the positive effect of reading-writing intervention in improving the English reading and writing ability of international novice writers. The results show that the reading-writing intervention using the Five-Step Paraphrasing Method is of great significance, such as cultivating and developing learners' language expression ability, writing awareness, and communication ability. These findings can provide useful reference for second-language writing teaching. In the future, research and exploration should not stop but continue to deepen, exploring the specific needs of learners from different cultural backgrounds to develop personalized training programs. The achievements of this study are conducive to promoting the high-quality development of English writing teaching, making it more scientific and international, and contributing to cultivating highly competitive writing talents.

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