

The Effects of Language Aptitude on Fluency in L2 Writing

Caiwen Bai^{1,a,*}

¹College of Foreign Languages, University of Shanghai for Science and Technology, Shanghai,
200000, China

a. 2215040102@st.usst.edu.cn

*corresponding author

Abstract: Language aptitude is a crucial characteristic of second language learning. This study conducted a literature review analysis to review multiple domestic and international studies on the specific relationship between language aptitude and writing output, with the aim of delving into the impact of linguistic competence on second language writing fluency and the mode it affects writing fluency. The study first outlined the definitions of language aptitude and writing fluency. Then, through specific literature analysis and reference to cognitive psychology and language acquisition theory, it is concluded that language aptitudes undeniably impact writing fluency. This study reveals the following important findings: the study found that language aptitudes, being known as the key aptitudes in second language learning, have a positive impact on writing fluency, emphasizing its indispensable role. Finally, this article explores the specific teaching strategies of educators and how learners can improve their fluency and writing skills during the period of second language writing by effectively enhancing their language aptitudes and providing effective references for second language acquisition. The study further explores the specific relationship between language aptitude and second language writing, delves into their influence, and provides a solid theoretical and practical foundation for more specific factors.

Keywords: Language aptitude, Second language acquisition, Fluency.

1. Introduction

With the continuous development of education reform, second language learning has become one of the essential features of the diversified development of education in the era of intelligent education. Second language acquisition is a popular research theme in academia, and the relationship between language aptitude and writing is one of the focuses of academic attention. Language aptitude is a learning ability highly sensitive to the teaching environment and cognitive processing. It can be actively accessed and utilized at various stages of foreign language practice. Additionally, it portrays a momentous part in adapting to different teaching environments, enhancing learners' overall language acquisition process. As an advanced form of language output, writing is also a comprehensive reflection of language ability. In second-language writing, the output is an important reference for learners' writing proficiency. As one of the three elements of writing output, fluency is an important factor for learners to measure their writing proficiency.

Enhancing fluency in second-language writing remains a target for many language educators and learners. Existing research has extensively explored how language aptitudes and second language

acquisition interact with each other, focusing on these two major categories. However, the research and discussion in the domain of writing fluency in a second language is relatively simple and lacks in-depth analysis [1]. The research explores how language aptitude affects second-language writing fluency. This study thoroughly analyses previous literature reviews to detect how language aptitude and second language writing fluency are related to each other. It further explores the influence of language aptitude on second-language writing performance. Through this literature-based approach, key findings and patterns are identified to provide a comprehensive understanding of these connections. This article provides substantial evidence and practical recommendations to encourage learners to adopt more effective learning strategies, make progress in writing fluency, and improve writing performance.

2. Literature Review

2.1. Concept Discussion

2.1.1. Overview of Language Aptitude

Linguistics has a long history and background. As a science that studies human language, linguistics delves into the essence, structure, function, and evolutionary laws of language, and is widely associated with multiple disciplinary fields. In linguistics, language aptitude is a frequently occurring word. Language aptitude involves a series of cognitive abilities that predict the rate of second language acquisition and the extent of ultimate attainment [2]. Language aptitude can serve as the best tool for evaluating whether language acquisition succeeds or fails, with scholars at home and abroad unanimously recognizing its important role in predicting language learning achievements [3]. It is the talent and ability demonstrated by learners in the course of language acquisition, which is not fixed but is constantly improved through the learning process. In the coming years, with the incremental depth of second language learning, the importance of language aptitude has also been constantly explored and discussed. Numerous studies have shown that linguistic ability is key to second language acquisition. Many studies on second language aptitude tend to focus on testing to screen learners to make a determination on their compatibility in foreign language learning and instruction. Language aptitude has long been tested with mature methods, and different versions are available [4]. Traditional language aptitude exams mostly use the LLAMA language proficiency exam. The LLAMA Language Aptitude Test is a specialized and independent testing project that includes four parts: LLAMA B (Vocabulary Learning Measurement), LLAMA D (Speech Recognition Measurement), LLAMA E (Sound Symbol Pairing Measurement), and LLAMA F (Grammar Inference Measurement). Introduce and evaluate these language aptitudes being tested through the model's performance in various linguistic tasks and benchmark tests. Calculate the scores of the subjects based on the test results and evaluate the learners' approximate language aptitude level according to the corresponding scores. In recent years, many versions of different language aptitude testing models have emerged with the continuous improvement and refinement of language aptitude testing models. The Modern Language Aptitude Exam, abbreviated as MLAT, was developed by Carroll and Sarpen to comprehensively measure language aptitude proposed by Carroll from five aspects; the Linguistic Ability Inventory, abbreviated as PLAB, was designed by P.Pimsleur to investigate which linguistic abilities are lacking in individuals with learning difficulties; the common LAT language aptitude comprehensive assessment is a language proficiency test supported by the Peking University Examination Research Institute, which tests learners' comprehensive language application ability. There are also other models and so on. The test of language aptitude is constantly improving and enhancing over time, and its diversity and accuracy are also constantly on the increase. Linguistics can play multiple roles in language learning, teaching, and research fields. It can use small

assessments to assess individual differences in language learning, enabling educators to provide more targeted guidance to learners, and to some extent predict learners' performance in future language learning. The results presented in these language aptitude exams remain the basis for learners to conduct self-assessment, which to some extent motivates learners to be more engaged in language learning and improve their motivation.

2.1.2. Definition of Writing Fluency

Writing is a cognitive process of expressing semantics through words and sentences, and writing output includes accuracy, fluency, and complexity [5]. Writing has always been an indispensable portion of language learning and a vital indicator for measuring the quality of an article. In second language acquisition, writing is undoubtedly an important task, and output of writing also reflects the learner's ability level. It is not only about the use and expression of words but also about the writer's ability to master language. Writing is the externalization process of thinking, and fluent writing can directly reflect the emotional level of the author's thinking. From this, it can be inferred that fluency in writing, as one of the three indicators of writing output, is an important indicator for measuring the accuracy and efficiency of an author's expression of viewpoints and ideas. In previous studies, the evaluation of writing fluency was often tested by the quantity of word rewrites in the composition or the total number of words produced simultaneously. There are corresponding scoring criteria for the number of rewrites or the general amount of words produced, which are used to determine the knowable fluency of the article written by the learner. The fluency of second language writing not only reflects the smoothness of the content on the surface but also profoundly reflects the author's ability to use language, which is a good presentation of writing performance. Whether it's academic papers, business reports, or daily communication such as letter writing and length reporting, fluent writing can ensure more accurate information transmission and enable readers to understand more effectively. Fluency plays an irreplaceable role in improving the reading experience, enhancing coherence of expression, demonstrating clarity of thinking, and accelerating information transmission speed. Fluency in writing is a comprehensive concept encompassing multiple aspects, such as vocabulary usage, sentence structure, and logical coherence. High fluency in writing is a common goal and direction pursued by learners.

2.2. The Relationship between Language Aptitude and Fluency in L2 Writing

Second language acquisition involves the learning of any other language after the acquisition of the mother tongue. Second language acquisition has gradually developed since the 1960s, usually involving interdisciplinary theories such as linguistics, neurology, and language education. This study highlights the distinction between acquisition and learning in second language development. It aims to understand the characteristics and developmental changes that occur as learners acquire a second language. Additionally, it examines both internal and external elements that affect the process of mastering a second language, offering a comprehensive view of second language acquisition dynamics. The research field of second language acquisition is very broad, including theoretical acquirement research and applied such research. Linguistic competence is a significant keyword in second language acquisition [6]. Many scholars have stated briefly that linguistics can directly affect second language acquisition efficiency. Language ability is one of the main differences among individual learners, and learners with high language proficiency are often able to grasp language knowledge faster and more clearly and apply it with ease [7]. In recent years, scholars have studied the specific relationship between language aptitude and second language acquisition, further exploring teaching strategies for learners to optimize second language acquisition so as to achieve more efficient language instruction and learning outcomes. There is a close and complex relationship

between the two. Understanding and evaluating an individual's language aptitudes is of great significance in promoting effective second language acquisition. At the same time, second language acquisition investigation also provides important theoretical and practical support for the study of linguistic abilities. The two complement each other and are inseparable.

2.2.1. Language Aptitude has an Impact on Fluency in L2 Writing

Language aptitude tendency is a learning ability that is sensitive to the teaching environment and processing process and can be actively acquired and utilized during different periods of foreign language instruction and teaching environment. Fluency in writing refers to the degree to which a person expresses themselves fluently in language while engaging in writing activities. Coherence in writing is thought of as one of the most vital qualities of written discourse [7].

The theoretical research areas of this study include cognitive psychology theory and linguistic competence theory. Cognitive psychology, which emerged in the mid-1950s in the West, focuses on the study of advanced human psychological processes. It primarily investigates cognitive processes such as attention, perception, mental representation, memory, creativity, problem-solving, language and thinking. Cognitive psychology also applies to second language acquisition, allowing me to reflect on the theory and writing aspects of second language acquisition. The theory offers a comprehensive perspective and in-depth analysis of the role of cognitive processes in writing. Linguistics, as a crucial learning ability in second language acquisition, undoubtedly affects the specific cognitive processes of learners. For example, language proficiency may affect cognitive processes, thereby affecting writing fluency. It can be inferred that there is a mutual influence between linguistic proficiency and fluency in second-language writing.

Language acquisition theory contains both input theory and output theory in connection with language. Language input theory suggests that people learn language through absorption, emphasizing the importance of acquisition in language acquisition. The language output theory refers to learners using their already learned language knowledge and skills to output and achieve the goal of language communication. Theory suggests that language output is crucial in language learning. As an advanced form of language output, writing is also indispensable. Swain's Language Output Hypothesis in 1985 pointed out the indispensability of output in language acquisition. As a form of language output, the fluency of writing may be influenced by learners' language abilities. Therefore, from what is discussed above, it can be concluded that there is a close relevance between language aptitude and fluency in second-language writing, and the two influence each other.

2.2.2. Positive Impacts

According to the psychological and linguistic theories mentioned above, language aptitudes can have a close relationship and mutual impact on second language writing. Language aptitudes can have an impact on fluency in second-language writing. In recent years, many researchers have performed experiments on the relationship between language aptitude and second language writing, and the experimental data from these majors strongly demonstrate the relevant impact of language aptitude on second language writing output. In 2023, Yang Yingli and Jin Guangsa used quantitative experimental methods to conduct detailed research on the impact of language aptitude on second language writing output. The experiment selected 50 students from the same university's English major with an average age of 19 and no significant difference in CET-4 scores for language aptitude testing and second language writing output testing [8]. The subjects first undergo the LLAMA four part language proficiency test, and the comprehensive score of the test is used as the language aptitude test score. Then, the writing fluency test is conducted, using the number of words the learner produces in 35 minutes as the writing fluency indicator for evaluation. The test results show that subjects with

low language aptitude have lower writing fluency indicators, while subjects with high language aptitude have higher writing fluency indicators. Wu Jie conducted an experimental study in 2023 to investigate the relationship between language aptitude and second language writing performance among English scholars [1]. She selected 34 students with an average age of 20 from the same school and major to take language aptitude and second language writing tests. The subjects first undergo a language aptitude test, using traditional language aptitude testing methods to classify their language proficiency levels based on their scores. Then, proceed with a second language writing performance test. Complete a 700-word English writing task that can be taken home within 48 hours and score it accordingly. The test results also showed that high language aptitude individuals performed better in writing, while low language aptitude individuals performed lower in writing. Fluency is included as an indicator of writing performance. There are many similar experiments, and the test results are similar. It can be classified and summarized as the higher the language aptitude of the subjects, the higher their fluency in second-language writing. It, therefore, can be inferred that language aptitude can positively impact second-language writing. Learners with higher proficiency in linguistics tend to have higher fluency and better writing performance in second-language writing.

2.3. Teaching Method and Strategy

Second-language writing is a complex and intricate task. The conclusion that language aptitudes can positively impact writing fluency provides us with insights into various teaching methods and tactics.

For educators, the first step is to conduct one to two professional language aptitude tests on learners. Through the scores presented in the test, the teacher understands the learners' language aptitude level and divides learners with similar language aptitude levels into the same class for personalized and layered writing teaching. For learners with relatively weak language aptitudes, educators should pay more attention to primary teaching, improve learners' language aptitudes, and lay a solid foundation for writing fluency so as to make progress in future writing tasks. For students with a high-level language aptitude, educators can provide greater extended teaching and extensive reading, allowing learners to accumulate a rich vocabulary and express their ideas in writing diversely and fluently. For students with lower levels of language aptitude, educators should have a general understanding and knowledge of their writing abilities based on the assessed linguistic proficiency and set specific and achievable writing goals for them to stimulate their interest in writing. In addition, language aptitude is the foundation for improving writing fluency. In writing teaching, teachers can develop more targeted teaching plans based on learners' language aptitudes, allowing learners to improve their pronunciation, grammar, and vocabulary accumulation, making writing more fluent. The language environment in the classroom is also very important for learners. Teachers can organize innovative teaching activities to improve learners' language aptitude and lay a good foundation for improving writing fluency.

An important lesson for second language writing educators is that writing instruction for students with lower language aptitudes should be combined with language instruction, as the primary goal of first language writing instruction may be to teach students the writing course and the way of using it. Second language writing instruction should include not only writing instruction, but also reading, listening, speaking, grammar, vocabulary, and any language instruction that the writing teacher believes can accelerate overall language fluency acquisition [9]. Of course, it cannot be denied that educators can also improve learners' writing fluency through commonly used teaching encouragement mechanisms such as creating personalized learning plans, providing targeted tutoring, creating practical opportunities, and stimulating learners' interest in writing. These findings provide insights for educators and offer new approaches to second language writing teaching methods by delving into the role of pre-task planning patterns in second language writing [10].

3. Conclusion

The present study investigated the effects of language aptitude on L2 writing. It revealed the critical finding. The finding clearly suggests that language aptitude affects fluency in L2 writing and positively impacts it. Language aptitude is a significant foundation for fluency in second-language writing. Learners with higher language aptitude often demonstrate higher fluency in the writing process, but learners with lower language aptitude may not achieve satisfactory fluency in writing. From this, it can be seen that enhancing learners' language aptitudes is one of the efficient ways to enhance their fluency in second-language writing and thus enhance their writing skills. This study provides appropriate ideas and strategies for learners with different language aptitudes to enhance their writing skills and improve their writing proficiency while deepening the relationship between language aptitudes and second language acquisition and enriching research content.

However, this study also has certain limitations. Due to the complex factors affecting fluency in second language writing, apart from language aptitude, a series of other factors also impact fluency in second language writing. What's more, other elements of writing output may also have varying degrees of impact on liquidity. Therefore, future research can delve into the specific situations in different contexts, continue to explore the correlation between the two, and also need to comprehensively consider the impact of other possible factors on the results. This study provides more references for studying how the relationship between language aptitudes and second language acquisition develops, the improvement of fluency in second language writing, and enhancement of the level of second language writing, providing more wisdom and strength for second language acquisition research.

References

- [1] Jie Wu. *Exploring the Relationship between Linguistic Ability and Second Language Writing Performance of College English Learners* [D]. Beijing Foreign Studies University, 2023.
- [2] Li, S., & Zhao, H. (2021). *The methodology of the research on language aptitude: A systematic review*. *Annual Review of Applied Linguistics*, 41, 25–54.
- [3] Xin Xin. *A Review of Linguistics and Second Language Acquisition Research* [J]. *Chinese Character Culture*, 2024, (15): 94-96.
- [4] Chalmers, J., Eisenclas, S. A., Munro, A., & Schalley, A. C. (2021). *Sixty years of second language aptitude research: A systematic quantitative literature review*. *Language and Linguistics Compass*, 15(11), e12440.
- [5] Yawen Han, Si Liu. *The Influence of Task Complexity and Working Memory Capacity on Written Language Production of Chinese English Learners* [J]. *Shandong Foreign Language Teaching*, 2019, 40 (02): 66-75.
- [6] Wen, Z. E., Biedroń, A., & Skehan, P. (2017). *Foreign language aptitude theory: Yesterday, today and tomorrow*. *Language teaching*, 50(1), 1-31.
- [7] Abdul Saeed; John Everatt; Amir Sadeghi; Athar Munir. *Cognitive Predictors of Coherence in Adult ESL Learners' Writing* [J]. *Journal of Language and Education*, 2022.
- [8] Gemma Artieda;; Carmen Muñoz. *The LLAMA tests and the underlying structure of language aptitude at two levels of foreign language proficiency* [J]. *Learning and Individual Differences*, 2016.
- [9] Wolfersberger, M. (2003). *L1 to L2 writing process and strategy transfer: A look at lower proficiency writers*. *TESL-EJ*, 7(2), 1-12.
- [10] Tabari, M. A. (2021). *Task preparedness and L2 written production: Investigating effects of planning modes on L2 learners' focus of attention and output*. *Journal of Second Language Writing*, 52, 100814.