Research on the relationship between learning strategies and language transfer in second language acquisition

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Abstract: This study explores the relationship between learning strategies and language transfer in second language acquisition. Learning strategies, such as cognitive and metacognitive types, guide knowledge processing, while language transfer, influenced by similarities and differences between the mother tongue and second language, can be positive or negative. Research has evolved from behaviorism to cognitive and socio-cultural perspectives, with a focus on multilingual contexts in China. However, there is a lack of empirical evidence and practical applications. To address this, teaching should focus on targeted strategies, and research should integrate brain science to improve second language acquisition.
Key words: second language acquisition; learning strategies; language transfer; foreign language teaching

1 Introduction

This study explores the interaction between learning strategies and language transfer in second language acquisition, which plays a crucial role in the globalized context. After mastering their mother tongue, learners may encounter a second language, where learning strategies and language transfer from the mother tongue significantly impact outcomes. The research aims to enhance the theoretical framework of second language acquisition and provide practical guidance for teachers to adapt learning strategies based on students' language transfer characteristics, helping learners improve their methods and efficiency. The study employs literature review, case analysis, and comparative methods to analyze global literature, examine second language learning cases, and compare learners from different linguistic backgrounds.

2 An overview of basic terms

2.1 Overview of learning strategies

Learning strategies are cognitive skills that drive the learning process, influence motivation, and facilitate knowledge acquisition. These strategies influence how learners organize, integrate, and acquire new information. According to Anderson, they guide the organization of knowledge, while O'Malley and Chamot believe they include pre learning, learning, and post learning activities, including self suggestion to reduce anxiety. Learning strategies are divided into direct strategies and indirect strategies. Direct strategies include memory strategies, compensation strategies, and cognitive strategies, while indirect strategies include metacognitive affective and social strategies, and affective strategies.

2.2 Overview of language transfer

Language transfer refers to the influence of a previously acquired language, usually the mother tongue, on second

language learning. This influence can be either beneficial (positive transfer) or harmful (negative transfer), depending on the similarities or differences between the mother tongue and the target language [1]. Positive transfer occurs when similarities between the two languages enhance learning, while negative transfer happens when differences interfere with the learning process.

3 Relevant studies at home and abroad

3.1 Studies on learning strategies at home and abroad

3.1.1 Studies on learning strategies abroad

Gagne proposed the information processing theory of learning, emphasizing that learning is a complex information processing flow and learning strategies run through all aspects such as information intake, encoding, storage, and retrieval. Learners should choose appropriate strategies according to different learning stages to improve learning effectiveness. His theory provides a basic framework for subsequent scholars to explore the internal mechanisms of learning strategies [2]. O'Malley and Chamot subdivided language learning strategies into three categories: metacognitive strategies, cognitive strategies, and social strategies through a large number of empirical investigations. In studying the learning process of English as a second language (ESL) students through methods such as questionnaires, interviews, and classroom observations, they found that students who are good at using metacognitive strategies have more significant improvements in comprehensive language abilities [3].

3.1.2 Studies on learning strategies at home

Professor Wen Qiufang has been deeply engaged in English learning strategy research for a long time and constructed an influential "learner factor analysis framework" covering both concept and strategy dimensions. Through large-scale questionnaires of English learners at different levels in China, it was found that there is a significant correlation between Chinese students' English learning concepts and strategy choices [4]. With the help of corpus tools, the types and frequencies of vocabulary and grammar errors can be accurately analyzed, and students' weak learning links can be identified, and then the learning strategy guidance plan can be adjusted accordingly. Based on CLEC data research, it was found that Chinese students are prone to errors in the use of English articles and tenses, and the corresponding strategy is to strengthen special exercises and contextualized grammar learning [5].

3.2 Studies on language transfer at home and abroad

3.2.1 Studies on language transfer abroad

Represented by Lado, in *Linguistics across Cultures*, he proposed the contrastive analysis hypothesis. It believes that learning is the formation of habits, and mother tongue habits will transfer to second language acquisition. Similar structures lead to positive transfer to facilitate learning, and different structures cause negative transfer to interfere with the process. Although it was partially questioned later due to the complexity of language learning, it opened the door to the systematic research on language transfer in the academic community [6]. Ellis pointed out in *Second Language Acquisition* that transfer is no longer limited to the comparison of surface structures but is more related to learners' deep cognitive mechanisms. By using experimental methods to explore the brain activation patterns of learners with different mother tongue backgrounds when processing second language grammar, it was found that even if the grammar of the mother tongue and the second language seems very different at first glance, if there is a common underlying logic, the brain will automatically capture and transfer relevant cognitive strategies [7].

3.2.2 Studies on language transfer at home

In the initial stage, they focused on English-Chinese contrastive analysis to help teachers "prescribe the right medicine". *Introduction to Contrastive Linguistics* systematically sorts out the comparison results of English-Chinese

vocabulary semantics, syntactic structures, and discourse coherence, pointing out that the differences in sentence structures between Chinese topic prominence and English subject-predicate prominence lead to negative transfer of "top-heavy" sentence patterns when students translate English into Chinese. At the vocabulary level, they analyzed the traps of English-Chinese homographs such as "bank" and guided strategies to avoid mother tongue interference, laying a solid foundation for basic teaching. The construction of corpora for Chinese native speakers' second language acquisition, such as the "Chinese Learners' English Oral and Written Corpus", has dug deep into the laws of transfer from massive data [8]. Research in Xinjiang, Tibet, and other places shows that when Uyghur and Tibetan native speakers learn Chinese, the transfer of phonetic prosody and vocabulary cultural connotations is unique. Scholars advocate guiding according to the situation while respecting ethnic cultures. Relevant results are included in *Collections of Ethnic Education Research*, promoting the implementation of multicultural education policies [9].

4 Summary and comment based on the previous research and gap-finding

4.1 The relationship between learning strategies and language transfer

Learning strategies are techniques that learners adopt to improve language learning, including micro-strategies for specific tasks and macro-strategies for planning, regulating, and evaluating learning. These strategies help learners acquire better methods, enhance learning efficiency, and foster motivation. By mastering strategies, learners can promote positive language transfer and improve their second language acquisition.

4.2 Summary of research findings

Research has established that learning strategies and language transfer are interrelated. Learning strategies can direct and influence language transfer, transforming negative transfer into positive transfer. The relationship evolves through different learning stages, with early stages relying heavily on the mother tongue and advanced stages shifting toward second language thinking. Transfer points also vary based on the learner's mother tongue background.

4.3 Analysis of research limitations

Most research on language transfer has focused on cognitive theory, with limited empirical studies and few long-term studies tracking dynamic changes in strategies and transfer. Research is often cross-sectional, lacking in-depth exploration of neural mechanisms and brain processes. Additionally, research primarily focuses on English-Chinese, leaving gaps in the study of minority and non-Indo-European languages, and practical teaching applications remain underdeveloped.

5 Conclusion

The relationship between learning strategies and language transfer is complex and dynamic, guiding the entire second language acquisition process. While significant knowledge has been gained, there is more to explore. The integration of innovative pedagogy and interdisciplinary research holds the key to enhancing teaching practices. Future developments will transform language teaching into a science, cultivating skilled cross-linguistic communicators ready to navigate global challenges and fostering multicultural understanding.

Conflicts of interest

The author declares no conflicts of interest regarding the publication of this paper.

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