

Research on the Application of Learning Frequency in Cultivating Language Sense in Second Language Acquisition

Yang Li

Shanxi Datong University, Datong, Shanxi, China
yangli7622@163.com

Abstract: In recent years, with the emergence of connectionism theory and the deepening of psycholinguistics, the research foundation of second language acquisition has been provided. This paper delves into the impact of learning frequency on the development of language sense in second language acquisition. It provides a brief overview of the relationship between learning frequency and second language acquisition. Additionally, it emphasizes the positive effects of learning frequency on the cultivation of language sense from three angles: efficiency of language sense acquisition, self-improvement of language sense, and cognitive processes and memory in the brain. The paper further substantiates these claims through comparative experiments that demonstrate the promotion effect of learning frequency on the cultivation of language sense in learners.

Keywords: Learning frequency; Second language acquisition; Language sense training; Promoting effect

1. Introduction

Second language acquisition language sense refers to that learners learn another language after acquiring their mother tongue, and in the process of second language learning and communication, they understand and summarize the grammar, characters and pronunciation of the language, and acquire the ability to express, apply and create the language^[1-2]. The language sense of second language acquisition is subconscious and intuitive. It is the unity of perception and language theoretical knowledge, and it is the direct perception and reasoning of language goals. In the process of learning a second language, the language sense of second language acquisition plays an important role. Therefore, it is necessary to strengthen the training of the language sense of second language acquisition.

There are some defects in the traditional training methods, that is, learners can not obtain a good sense of language, and learners have certain language barriers when communicating in a second language. In order to comprehensively improve the language ability of learners, a relatively perfect language sense training strategy for second language acquisition is formulated^[3].

To sum up, this paper has deeply studied the role of learning frequency in promoting the cultivation of language sense in second language acquisition. It has identified the important role of learning frequency in second language learning and briefly explained the relationship between learning frequency and second language acquisition. The paper has also introduced the role of learning frequency in promoting the cultivation of language sense in second language acquisition from three aspects: language sense acquisition efficiency, self-language sense improvement, and brain cognition and memory. Additionally, a morpheme order experiment has been designed to prove the viewpoint discussed in this paper. The paper emphasizes the importance of learning frequency and provides effective language sense training measures for second language learners, thereby promoting the improvement of learners' language ability.

2. The relationship between learning frequency and second language acquisition

Human cognition and learning of language is a complex process of ideological development, which manifests as a connection between sensory stimuli and behavioral responses at the physiological level. The brain's cognition of language is the arrangement and combination of various divergent connection paths to form different performance behaviors. It is precisely because of this connection that when

people are subjected to the same sensory stimulation, the brain will make the same response, thus promoting the body to produce other same behaviors. Moreover, with the continuous strengthening of the connection between the external stimulation and the brain response, the body's response gradually tends to be automatic^[4-5]. From human memory level, frequency can be regarded as a kind of repeated stimulation caused strong reaction, the generation of new memory based on new information compared with the known information, integration, thus the relationship established between the old and new information, and with the new memory repeatedly appears, will continue to strengthen contacts with the known information and new information in the brain memory for this special information unceasingly strengthens, Thus, the body can respond more sensitively to the behavior corresponding to this information^[6].

In learning theory, learning frequency is a core issue. For second language learning, learning frequency is an important factor. Second language learning is a kind of associative learning process with representation phenomenon, which reflects the probability of occurrence corresponding to form and function. Therefore, learning frequency is the key to language learning. No matter in grammar, pronunciation or language sense, all language output comes from the learners' analysis, memory and extraction of language input characteristics. The reason why learners can explore language rules from scattered language structures and incorporate them into memory is precisely the role of learning frequency^[7].

The influencing factors of learning frequency are shown in Figure 1 below:

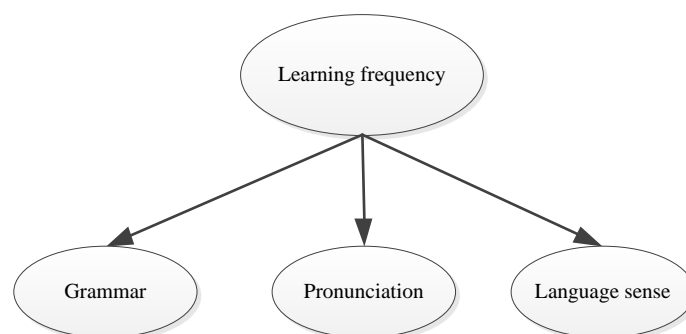


Figure 1: Factors Affecting Learning frequency

Linguistic dictionaries define frequency as the number of times a language item appears in a paragraph or language material. Different language items have different frequencies in speaking and writing. For learners, when learning a second language, the frequency of the language patterns/initiatives themselves plays a more significant role than individual words in generating learner interest. Learners tend to subconsciously quantify the occurrences of these language patterns and engage in corresponding physical activities and responses to comprehend them. This subconscious mechanism promotes brain plasticity development, which forms the foundation for learners' language perception^[8-9]. The brain's recognition of language frequency is illustrated in Figure 2 below.

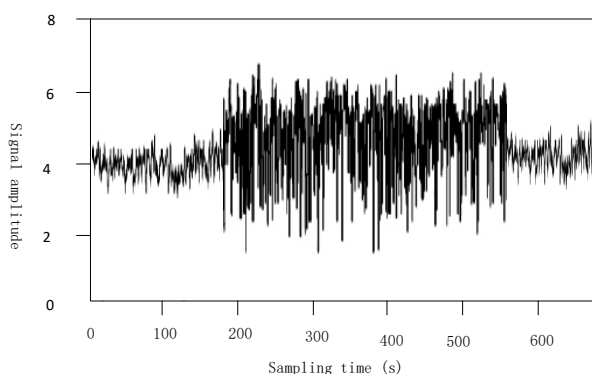


Figure 2: Frequency of brain recognition of language

3. The promoting effect of learning frequency on language sense cultivation in second language acquisition

Language sense plays a key role in second language acquisition. Cultivating learners' language sense can effectively improve learners' ability to understand language, so that learners can use language more smoothly and improve the fluency of second language communication. This paper discusses the promoting effect of learning frequency on language sense cultivation in second language acquisition from three aspects: language sense acquisition efficiency, language sense enhancement, brain cognition and memory, as shown below ^[10-12].

3.1. Promote the improvement of language sense acquisition efficiency

There are mainly two ways to acquire the sense of language. The first is natural language acquisition, which refers to contacting the language in a specific environment, so that the application rules of the language can be deposited in the learners' brains in the environment, thus forming a certain language structure. The second is conscious language practice, which means that learners receive language education in schools and other special educational places, consciously acquire language and cultural knowledge and summarize the rules of use. The method of obtaining the language sense is shown in Figure 3.

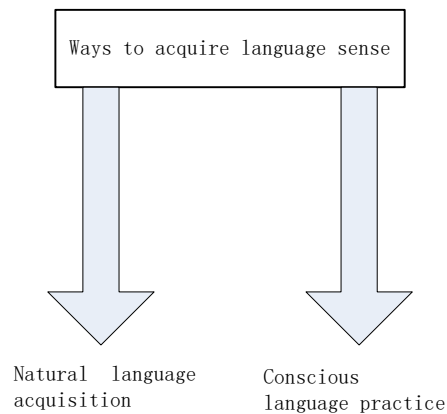


Figure 3: Ways to acquire language sense

No matter what kind of language sense acquisition method, it is necessary to enhance the contact opportunities between learners and language, that is, to emphasize the learning frequency of learners. Books are read hundreds of times because they're merely a text, but when language learners accumulate a certain level of frequency in their language projects, their brains begin to process it as core information. Through repeated exposure to this language, learners can expand their knowledge of language rules, usage, and connections to other areas to form a more complete language network. This enhances learners' language sense and efficiency, ultimately accelerating their language learning ^[13-14]. Essentially, learners primarily acquire second language knowledge through auditory and visual inputs. Seeing and listening are common ways to increase the frequency of learning. Prompted by point frequency, learners identify their own issues in second language knowledge. They start by examining the nature of the problems and then proceed to explore the root causes. Through continuous learning and problem-solving from the source, learners can deepen their mastery of the second language. This process enables them to fluently express language items and facilitate the transformation of theoretical knowledge into procedural language output. As a result, the efficiency of language sense acquisition is enhanced through learning frequency ^[15].

The language network structure is shown in Figure 4 below:

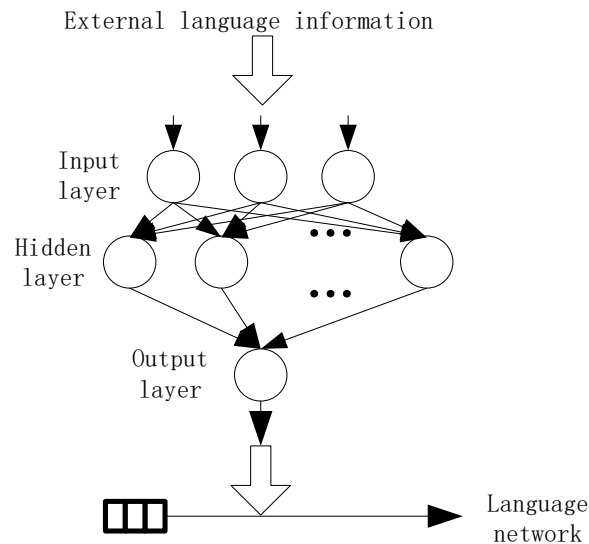


Figure 4: Language network structure

3.2. Promote the enhancement of their own language sense

Learners' language sense is more reflected in "reading" and "writing". Conversely, increasing the number of "reading" and "writing" of a certain language item can not only improve the learning frequency, but also further cultivate learners' language sense in second language acquisition. The enhancement of language sense by learning frequency is shown in Figure 5:

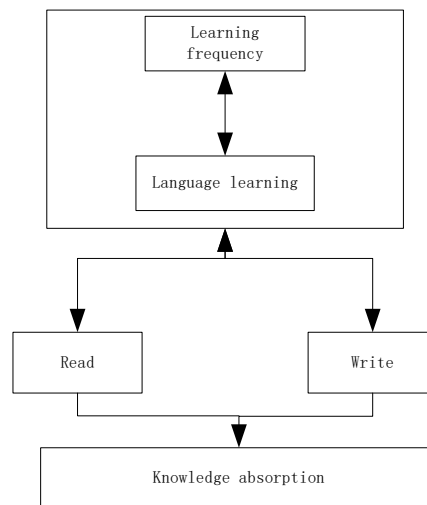


Figure 5: Enhancement of language sense of learning frequency

First of all, from the perspective of "reading", reading is a common human behavior. Reasonable application of reading, strengthening the reading training of learners for a language item, and enhancing the learning frequency of learners can enable learners to develop the expression ability and coherence ability of this language item in the process of multiple reading, so as to form a good sense of language. However, to enhance the number of reading of learners, rather than mechanical reading, it is necessary to pay attention to skills and methods, integrate environment, emotion and thinking into reading, and make the brain establish multiple connections about the language item, so as to stimulate the body to automatically send out reading behavior.

On the other hand, "writing" is also an important way for language learners to promote the acquisition of language sense. Compared to "reading," the act of writing can further strengthen language sense and promote learners' frequency of language use in the particular project of writing. This can help develop second language learners' thinking ability, creative ability, and expression ability. Thus, writing can cultivate the sense of second language acquisition. However, STRENGTHENING

writing training does not include blindly copying mechanically, but should pay attention to learners' thinking and creation, step by step, so as to realize the enhancement of learning frequency and learners' language sense.

3.3. Promote brain cognition and memory of language sense

The human brain has the ability to seek and establish the relationship between languages. Therefore, the language sense of second language acquisition comes from the brain's cognition and memory, rather than pure mindless repetitive practice.

When the brain recognizes a language item for many times, its memory is deepened with the increase of cognitive times. The brain receives language information input from the outside through numerous neurons and extracts information features through a series of information processing, thus connecting all information nodes to form a neural network structure. When the brain receives the same information again, the connection between information nodes is reactivated. And it will be strengthened with the deepening of cognition. If it is not activated for a long time, it will gradually weaken.

The process of second language acquisition for learners is a gradual change in the neural network connection weights within the brain's information processing. As learners acquire language patterns, the brain strengthens the relationship between information nodes through the input of abundant language project information. This deepens the brain's perception and memory of language sense, enabling the production of language patterns. Unconsciously, learners can react physically, facilitating the transition from quantitative to qualitative changes in the second language learning process. Therefore, it is evident that the cultivation of language sense in second language acquisition is a gradual process that requires repeated language input. However, this does not necessarily imply that it requires excessive time, as frequency is a critical factor influencing learners' acquisition of language sense in a second language. Therefore, it can be concluded that learning frequency can promote the brain's cognition and memory of language sense.

Brain fluctuations during second language learning are shown in Figure 6 below:

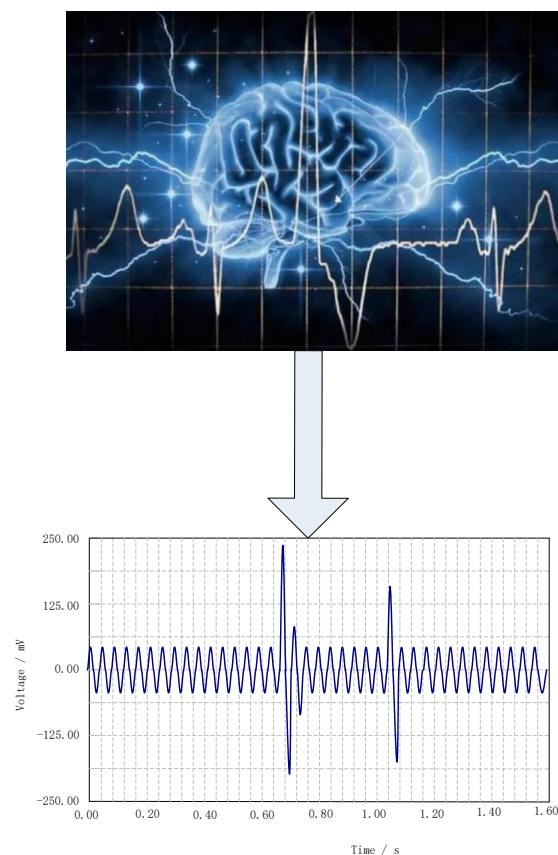


Figure 6: Brain fluctuations during second language learning

4. Experimental Study

In order to verify the reliability of the study frequency in promoting the development of language sense in second language acquisition, this conclusion is verified by experiments. Firstly, 12 male and 12 female students of the same age, similar learning qualifications and second language as English were selected in a university to study the morpheme acquisition order of these 24 learners. That is, it is ensured that the types of morphemes acquired by 24 learners are the same, but the frequency of each morpheme is different. According to the memory depth of the learners, the learned morphemes are sorted and the morpheme ranking results are compared.

The morpheme sorting result is shown in Figure 7 below:

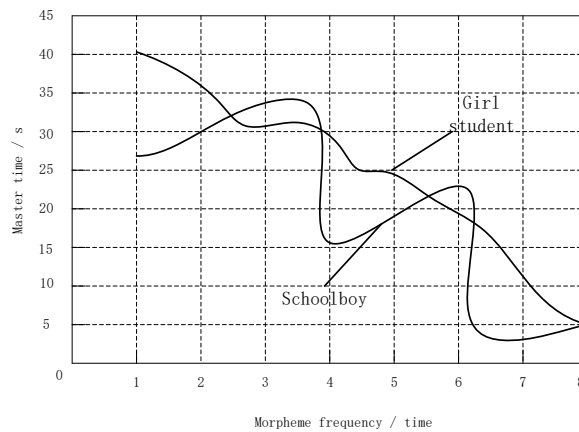


Figure 7: Morpheme ranking results

It can be seen from the experimental results that the morpheme ranking results of learners are basically similar. The morpheme with higher frequency is arranged in the front, while the morpheme with lower frequency is arranged in the rear, which proves that learners have a stronger sense of language and a deeper memory for the morpheme with higher frequency, which proves the research of this paper. Although the similarity of morpheme acquisition order cannot be explained by a single factor, it emphasizes the probability of morpheme occurrence. Although many studies have pointed out the research defects of this method, the high correlation between the accuracy of morpheme acquisition and the learning frequency has high reliability in the research on the language sense promoting factors. Students with low learning frequency, students with normal learning frequency and students with high learning frequency are shown in Figure 8, Figure 9 and Figure 10.

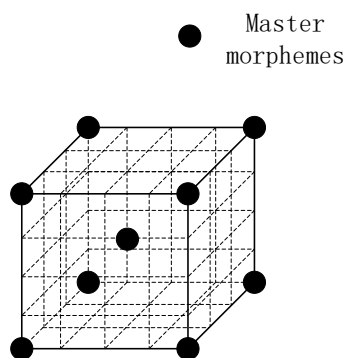


Figure 8: Morpheme content mastered by students with low learning frequency

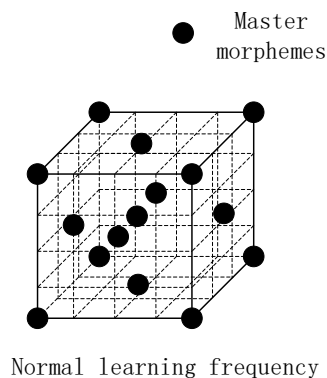


Figure 9: Morpheme content mastered by students with normal learning frequency

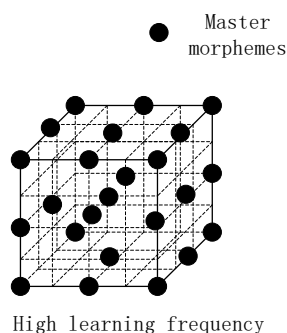


Figure 10: Morpheme content mastered by students with high learning frequency

The results of the experiment demonstrate that language learners grasp language items with higher learning frequencies more quickly and these items have a greater significance than those with lower learning frequencies. Furthermore, when learners first encounter a morpheme, their reaction performance corresponds with the frequency effect associated with the language sense in second language acquisition. As cognition and memory deepen, this effect becomes increasingly thorough. Through study, learners' brain response speed becomes faster, leading to greater sensitivity to language sense. The extraction and application of correlation information related to language projects also diversify, indicating that more frequent exposure to language programs improves language sense efficiency and enables faster second language acquisition. The development of language sense not only enhances a learner's overall comprehension abilities but also strengthens their time management skills.

5. Conclusion

To sum up, the second language acquisition language sense is an important language ability that needs to be cultivated. The strength of the second language sense reflects the second language level of the learners. Moreover, by improving the learning frequency of the learners, the efficiency of acquiring the language sense can be improved. By adopting appropriate reading and writing training methods, the expression of the learners' own language sense can be improved, and multiple cognition can also strengthen the memory ability of the brain for the second language, So as to promote the cultivation of learners' language sense of second language acquisition in all aspects, enable them to express their second language more accurately and quickly in actual communication, and realize the change process of second language acquisition from quantitative change to qualitative change.

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