"Equip", a Sla Strategy for Young Learners Based on a Longitudinal Study Case

Liu Lu[*]

The College English Department, Henan University, Kaifeng 475001, China
*Corresponding Author Email:wobeiqishipenghaor@163.com

ABSTRACT. Nowadays, more and more children are being exposed to a second language from infancy. How to equip the young children to acquire the second language, it is always lack of the well-established strategies. Based on a longitudinal study case of Millet, a Chinese boy, acquiring English as a second language in a Chinese family environment from age one to four, this paper tries to discover the law of second language acquisition for young learners and puts forward a strategy, entitled "Equip" Strategy, which is the shortened name for "Every", "Quality & Quantity", "Unique", "Initiative" and "People", the five sub-principles. The finding of the study shows that it is feasible to guide young children to acquire the second language in the family environment, and elaborates the approaches used in the case, striving to be a supplement to the young children second language acquisition strategy.

KEYWORDS: Young learners; Equip; Critical period; Second language acquisition; Strategy

1. Introduction

In China,more and more children are being exposed to a second language from infancy. Despite the investment of energy and time, it is difficult to achieve the best effect of second language acquisition without the appropriate approaches. What is the law of young children language acquisition and what are the effective guiding strategies for younger learners in SLA are the pursuits of this study. This research is a longitudinal study case of a Chinese boy acquire English as a second language in a Chinese family environment from age one to four. Based on that, this paper finds out it is feasible to guide young children to acquire the second language in the family environment, and puts forward a kind of strategy, entitled "Equip" Strategy, which is the shortened name for "Every", "Quality & Quantity", "Unique", "Initiative" and "People", striving to make a supplement to the language teaching strategies. This paper consists of three parts: to distinguish the terms, to demonstrate the critical period, and to put forward the "Equip" strategy.

2. To Distinguish the Terms

At present, the definition of relevant terms in the study of children second language acquisition is not clearly categorized, such as the distinction between bilingualism and second language, as well as acquisition and learning. This paper tries to distinguish the following terms.

(1) Acquisition and Learning

The Acquisition-learning Hypothesis states that there is an important distinction between language acquisition and learning. The way young children learn a second language is an unconscious infiltration of the language context,for children acquire language through a subconscious process during which they are unaware of grammatical rules. This is similar to the way they acquire their first language (Krashen, 1982: 52). Language learning, on the other hand, is the result of direct instruction in the rules of language. The learners intentionally try to master the grammar. However, knowing grammar rules could not guarantee the speaking or writing abilities (Li Li, 2010: 35-40). Hence, the guidance for young children to acquire second language should follow the law of cognitive development, helping them acquire language skills in a natural environment, as the implicit knowledge acquired by the subconscious effectively promotes the automation of language input and output.

(2) Bilingualism and Second Language

Bilingualism refers to that in the early stage of language acquisition, children are fully exposed to two languages at the same time, and the two languages develop almost simultaneously and children who are exposed to two languages at birth are said to be bilingual (Simultaneous Bilingual). The second type of childhood

bilingualism is called sequential or successive bilingualism. This happens when a child has one established language before learning a second one, whether in preschool or later (the age of three usually separates simultaneous and sequential language learning) (Virginia, 2007:27). And the second language acquisition mentioned in this paper refers to the second language acquisition of sequential bilinguals.

3. The Critical Period

Whether language critical period exists, it is quite controversial. This study demonstrates the critical period of second language acquisition from the perspective of the phonology, social-cultural cognition, language storage, and brain plasticity to confirm that the early young learners start, the easier they acquire the second language.

(1) Critical Phonology Period

Studies have shown that compared with adults, the innate learning mechanism of young children gives them an irreversible advantage in pronunciation and listening abilities. According to Hernandez and Li's Connection Model, speech perception and production include fine perception and coordinated movement, from accurate phoneme processing to intonation, even to the rapid and precise control of the vocal organs movement, such as lip, larynx, and vocal cord. These vocal organs of infants are not qualitative, but have strong plasticity, flexibility and imitation ability (Goodrich, 2015:36). A case of phonetic perception of Spanish and English bilinguals on similar tasks was studied by Hernandez in 2012. There were three groups in the study: early group (3 years old), middle group (6 years old) and late group (14 years old). The results show that the phonological level of the early group is similar to that of native English speakers (Hernandez, 2012: 190-201). The older the second language learner is, the lower the possibility of the accuracy pronunciation they could acquire.

(2) Critical Social-cultural Cognition Period

Patricia Kuhl, an American linguist, pointed out that babies (before the age of one) can distinguish any language in any country, and these babies (before the age of one) can be called global citizens in terms of language acquisition,But then as they widely accepted language in the society which they belong to, these children gradually became the culture boundary of learners. The younger the learners are, the easier they accept the social culture.

(3) Critical Language Storage Period

Broca's area, the speech center of human brain, is the mysterious factor of language learning. In 1996, experts at Cornell University published their findings on this subject, in the first issue of the journal Nature. Scientists using nuclear scanning have discovered a brain region dedicated to learning languages, which begins to develop rapidly at the age of 2 or 3 and matures between 10 and 12 years of age. This area is very sensitive in early childhood, but decreases with age. When children learn language, the brain deposits information directly in this area, however, for adults, the brain can no longer store the foreign language in this area, so it has to reconstruct the memory structure in another area. The new memory structure is not as sensitive as Broca's region, and it needs to be connected with Broca's area when it is used (Ma Zheng, 2016: 52). As a result, the older the learners get, the harder it is to develop a sense of language based on Broca.

(4) Critical Brain Plasticity Period

Neurophysiological research shows that from birth to 12 years, the brain area in charge of speech is in constant development, and both the left and right hemispheres of the brain can participate in language learning. However, with the increase of age, children's language acquisition ability gradually declines. A study from the department of language and auditory sciences at the University of Washington in the United States, has found that multilingual environments increase the density of neuronal connections and the speed of information channels in the brains young children. Meanwhile, other study led by Mechelli indicates that compared with monolinguals, the density of the left sub-parietal cortex increased in bilinguals. Moreover, early bilinguals showed more significant increases in gray matter density than late bilinguals (Mechelli: 2004:431). In addition, Klein and Mok (2014) found that the gray matter thickness in the left inferior frontal gyrus and the parietal lobe was inversely proportional to the initial age of SLA (Klein, 2014: 20-24).

4. "Equip" Strategy

"Equip" strategy, consists of five sub-strategies. It is an exploratory guiding strategy based on the longitudinal study case, which is the shortened name for "Every", "Quality & Quantity", "Unique", "Initiative" and "People".

(1) "Every" Strategy

This guiding strategy refers to guiding young children second language acquisition whenever and wherever possible, namely, trying to seize every opportunity to create the target language communication.

For example, reading picture books is a frequently used method for children second language acquisition. However, one misunderstanding should be pointed out: reading picture books is indeed a good choice, but it is not the only way. Think of the process of acquiring a mother tongue: one's first mastery of a mother tongue is not entirely dependent on reading, but the constant input in daily life plays an irreplaceable role. Therefore, young children should be guided to contact and use the second language in all aspects of life, such as washing, dressing, shopping, playing, and even going to the toilet.

When Millet was two years old, his mother prepared a special ladder for him to go to toilet. She told him,

"First climb up the ladder, and turn around. And then take off your pants, sit down, hold the handle and poop."

In this process, he gradually understood what a "ladder" is and which parts the "handles" are.

In addition, whether the translation method conforms to the law of language acquisition is worth checking. Studies have shown that the essence of language acquisition in young children is that neurons in the brain establish connections and networks. Words are stored in the brain of young children in a three-dimensional way: each word responds to the corresponding image, sound, and emotion. Through images and other sensory stimulus, children begin to guess the meaning, and associate language code with them, after repeated stimulation for many times, the language conditioning reflex is formed. Therefore, the process of natural acquisition should be image directly corresponding to language, and the intervention of translation method will hinder the formation of language thinking, and even impeding the natural output.

(2) "Quality & Quantity" Strategy

The quality of language input refers to accurate pronunciation combined with correct grammar and abundant wording / diction.Only when most of the input that learners come into contact with conforms to the grammar can the language rules processed and recorded in the mental channels of learners ensure the maximum quality (Bybee, 2000: 65-85); At the same time, the early pronunciation is in the critical period, so correct pronunciation is the guarantee of quality.

Abundant wording means that the instructor should use rich diction to promote the second language acquisition of young children. It not only includes commonly used daily vocabulary, but also extends to various aspects, such as science, art and culture. There should be "Rabbit", "Cat",and "Dog" in vocabulary of children, while "Beaver","Skunk", "Hedgehog" can be logged in their brain. When children come to know "Train, Bus and Car", they should have access to learn what are "Locomotive, Wiper and Bumper".

Quantity refers to time and frequency. In terms of time, one study concluded that three hours a day in a second language environment can help learners reach the level of sequential bilinguals; more than 5 hours, language level, near simultaneous bilingualism. In terms of frequency, the more frequently a certain word in different phrases is heard by learners, the less likely it is to be connected with a fixed vocabulary item, and thus the more likely it is to establish a general category based on such items (Wei, Xiaobao, 2018: 73).

When Millet was two years and three months old, one day his mother asked him, "Where is the candy?"

And he replied, "In my pocket."

"In my pocket" she never told him about the phrase before. But he already understood the meaning of "in", the meaning of "my", and "pocket". After internal reorganization, he gradually output "in my pocket."

Therefore, frequency is an important factor that leads to the self-reorganization of language system.

(3) "Unique" Strategy

This strategy emphasizes that the guidance of second language acquisition needs to respect the individual differences and the independent language silence period of each child. According to the different personalities of each child, one's cognitive development is significant different. Therefore, we should treat each child's independent language silence period objectively and guide them step by step with patience (Birdsong, 2001:235-349).

At the same time, the language input for the child during the period of silence, is not invalid. Although children who do not have the ability to produce language, yet their brains have activated the language processing mechanism, processing the input language signs and information, and preparing for the output (Cook, 2001: 81).

When Millet was one and a half years old, his mother was always singing a song to him, about "the little teapot" while showing a picture about it.

"I'm a little teapot short and stout. Here is my handle here is my spout."

At that time, he could not imitate it at all. However, about three months later, one day, Millet and his mother went shopping, and suddenly, he made a pause and pointed to a shop window, and said, "Mummy, the little teapot. Here is the handle and here is the spout."

Right then, he made it!

(4) "Initiative" Strategy

This strategy focuses on guiding young children SLA from imitation to self-output. In the process of language acquisition, learners should constantly adjust their grammatical structure. Therefore, language learning is not a simple habit formation process, but a process of constantly establishing and verifying hypotheses. This strategy focuses on guiding young children from imitation to self-output by multi-sensory motivation and raising heuristic questions.

"Multi-sensory learner motivation"

Children's early language acquisition first goes through the imitation stage, first from a single word to a phrase, then to a sentence. However, even if the output of the complete sentence has been reached, if it is a "copy" from the speech of the guide, it cannot be regarded as the voluntary output in the real sense. Therefore, when the children second language reaches the level of imitating complete sentences, it should not consider that the guiding task is done, but should adopt multi-sensory stimulation to guide them to achieve the independent input by internalization. Moreover, to guide children to actively participate in language activities, it is necessary to mobilize multiple senses, use eyes, ears, mouths, hands and brains, stimulate and maintain interest, promote the development of language thinking, and improve the ability of comprehensive use of language

Heuristic question

When raising questions in the second language, the instructors often worry that the children cannot understand some complicated language knowledge, so they repeatedly translate and explain lexical semantics, and frequently use questions that are mainly in the form of Yes or No. Little do they know that this way severely limits the development of young children language thinking, and makes them always passive. Thus, more guidance should be given to heuristic questions, What", "Where", "who", "Why", "When","when" and "How", namely 5W1H.

The following is the conversation between Millet and his mother, when he was 3 years old.

Mother asked him, "How do you plant the seed?"

And he replied, "First, I used the spade to dig a hole, and put the seed in it, then some dirt, and use the watering can to give it some water."

In short, heuristic questions could promote young learners to constantly activate their internal language thinking, and then achieve the self-output.

(5) "People" Strategy

Interpersonal interaction and communication for second language acquisition is extremely necessary, without which it can hardly achieve the best effect. However, at present, multimedia is involved in every aspect of second language acquisition. A large amount of audio and video materials, come up in the name of liberating parents. But it should be mentioned they could not substitute interpersonal communication. In TED conference, the experiment Shared by professor Kuhl in Washington confirmed that it is very difficult to achieve the learning effect without the interpersonal communication. Therefore, audio and video can only be auxiliary materials, but should not replace people in communication.

A case about Millet with the digital talking pen confirmed that.

When he was two years and one month old, mother prepared a digital talking pen for him. 12 weeks later, statistics showed that almost none of his language output came from the content of the talking pen. Why? Because without interpersonal communication, he could hardly understand the meaning of the sound. According to Krashen's Input hypothesis theory "i+1", learning effect could only be achieved when the language input is comprehensive. In the next days, mother tried to make him understand the meaning of the language code by communicating with him, assisted by the body language. And finally he could fully understand the content while listening to the talking pen, he even could take the corresponding gestures and posture. For example, he listened

to Peppa pig, he could take series of reaction to the language sound, "First, jump up and down three times, on one leg. Now wave your arms up and down, and stick your tongue out, and now, close your eyes and turn around quickly three times."

As for the reasons of trying to replace people with multimedia, the questionnaire survey shows that more than half of parents are worried that their pronunciation could not be as good as the native speakers, which will affect young children pronunciation. In this regard, it must be pointed out that although it is undeniable that the pronunciation of most non-native target language guides is difficult to get rid of the traces of mother tongue and dialect, the most important role of language is to communicate and convey information. If we give up the interpersonal interaction just because of the not so authentic pronunciation, we will miss the essential part of the language acquisition. At the same time, study from Taiwan shows that, for motivating the natural output, the communication between non-native speakers has the equivalent boosting effect as the communication with the native speakers.

Combining the first letters of the five strategies: "Every", "Quality & Quantity", "Unique", "Initiative" and "People", it will form a word "Equip", which means "to provide with abilities or understanding", and it is consistent with the main purpose of this strategy. The guide should adopt strategies in line with the law of young children language cognitive development, guiding them to maximize their language potential, so as to promote the second language acquisition into the higher level. In brief, this study is trying to discover and explore the law of young learners' cognitive development and proposing the "Equip" strategy, as a supplement to young children second language acquisition study.

References

[1] Birdsong D, Molis M (2001). On the Evidence for Maturational Constraints in Second Language Acquisition. Journal of Memory and Language, vol.2, pp.235-349.
[2] Bybee J, Thompson S (2000). Three Frequency Effects in Syntax. Berkeley Linguistic Society, vol.3, pp.65-85.
[3] Cook V (2001). Second Language Learning and Language Teaching. Routledge, pp.55-56.
[4] Goodrich J M, Lonigan C J (2015). Lexical Characteristics of Words and Phonological Awareness Skills of Preschool Children. Applied Psycholinguistics, vol.6, pp.36.
[5] Hernandez A E (2012). Age of Acquisition and Proficiency in a Second Language Independently Influence the Perception of Non-native Speech. Bilingualism: Language and Cognition, vol. 1, pp.190-201.
[6] Klein D Mok K (2014). Age of Language Learning Shapes Brain Structure: a Cortical Thickness Study of Bilingual and Monolingual individuals. Brain and Language, vol. 3, pp.20-24.
[7] Krashen S (1982). Principles and Practice in Second Language Acquisition.Oxford: Pergamum Press.
[8] Mechelli A, Crinion J T (2004). Neurolinguistics: Structural Plasticity in the Bilingual Brain. Nature, pp. 431-432.
[9] Virginia Y (2007). Stephan M. The Bilingual Child: Early Development and Language Contact. New York: Cambridge University Press.
[10] Li Li (2010). Lexical and Conceptual Organization of Second Language in Early Bilingual Children. Psychological Exploration, vol. 2, pp35-40.
[11] Zheng Ma (2016). Age Effects in Second Language Acquisition: memory, content and implications. Foreign Languages Research, vol. 5, pp. 52-53.
[12] Xiaobao Wei (2018). Consensus and Divergences in the Overseas Research on Children's PA Development (1987-2017). Foreign Language World, vol. 3, pp.73-74.