

EFFECT OF CRITICAL PERIOD ON SECOND LANGUAGE ACQUISITION

Shakhnoza Turaeva

Tashkent State University of Uzbek language and Literature named after Alisher Navai Uzbekistan, Tashkent,
shakhnozaturayeva@gmail.com

ANNOTATION

This article is argues about the effect of critical period to the learners second language acquisition. In the article by considering the theory of Critical age hypothesis, related hypothesis are discussed and collected data support the ideas of founders of CPH theory (Lenneberg, Penfield, Johnson) that language is learned well in specific period of human's life as the hemispheres of the brain that promotes language learning ability function appropriately until puberty period which begins approximately from the age of two and continues till thirteen

Keywords: *Critical age hypothesis, puberty, second language acquisition, language learning ability, L2 instructor, linguistic skills, in-class activities, out-of-class activities.*

INTRODUCTION

Second language acquisition holds different argumentative theories and several researches arguing about the factors that influence on acquiring L2 effectively. Studying different methods and approaches as well as theories and arguments make L2 instructors think thoroughly about difficulties that learners encounter during their L2 learning process and factors that effect on learning language better and how to apply them in language learning process. There is huge responsibility on the L2 teachers' shoulder to find proper approaches and methods for the language learners, considering various factors such as age, gender, characteristics, personality and many other factors to teach language efficiently. Identifying the learners' problems and finding them proper solutions force the instructor work on their weaker points and will form them as a skillful teacher improving knowledge and proficiency on the sphere of language teaching.

As an objective for this, CPH is so appropriate for investigating as from my experience on L2 learning I several times noticed that learners in different age levels

perform differently in LL which means age of learners is one of the key factors that matters how well the language is learned in various periods of human's life.

My intention is that I decided to investigate the influence of Critical Period Hypothesis on learners' second language acquisition and find out how well the theory is developed and ways to enhance learners language acquiring abilities after puberty period. So many researches have been done to clarify the impact of Critical Period Hypothesis on acquiring the second language and the hypothesis claims that there is an ideal time to acquire language successfully after this puberty period language acquisition becomes difficult and challenging task for language learners. The critical period hypothesis was first introduced by Montreal neurologist Wilder Penfield and co-author Lamar Roberts in their 1959 book "Speech and Brain Mechanisms" and was popularized by Eric Lenneberg -who considered the father of CPH- in his book "Biological Foundations of Language". Lenneberg argued that "the critical age period of L2 learning may also relate to the completion of the process of lateralization in the left brain hemisphere by the onset of puberty, which governs language functions" [4].

LITERATURE REVIEW

While investigating more on the topic Effect of Critical Period Hypothesis (CPH) on second language acquisition, I one more time comprehended that learners age is one of the crucial factors that require to pay more attention in learning language, based on the hypothesis that "Young children are more potential and faster in L2 learning thus, language is better acquired if the learner is more younger". Penfield & Roberts, two neurobiologists, first put forward the notion of the critical period hypothesis, which was initially derived from biology. Penfield & Roberts state that "After ninth year of Critical period human brain becomes rigid for learning languages" [6]

Scientists Fromkin, Rodman, Hyam claim that "the Critical Period Hypothesis refers to a particular time of human life that allows people to acquire a language in a natural environment faster and easier without any outside intervention and formal instruction According to Lenneberg, "if any language is not learned till the puberty period, it cannot be learned in a normal atmosphere. He supports Penfield and Roberts' [6] proposal of neurological mechanisms which is responsible for maturational change in language learning abilities" [4]. He also maintains that "coincides with brain lateralization and left-hemispherical specialization for language around age thirteen: infants' motor and linguistic skills develop simultaneously, but by age thirteen the cerebral hemispheres' functions separate and become set, making language acquisition extremely difficult"[4].

The survey which is conducted on Genie is considered classic example that prove Lenneberg's ideas on CPH. Genie who was the victim of child abuse was deprived of social interaction from birth until discovered aged thirteen. She had been judged for being retarded at birth and had been chosen to isolate which caused her being completely without language. Genie's case provided an perfect opportunity to test the theory that a nurturing environment could somehow make up for the absolute lack of language as she was away from communication till 12 years old. Despite of seven years of rehabilitation However, Genie still lacked linguistic competence in spite of seven years of rehabilitation, although the degree to which she acquired language caused disputation.[6]

Another case is Isabel "who proves before puberty language can be acquired despite no language use until re-pubescent period who was incarcerated with her deaf-mute mother until the age of six and a half. She also had no language skills who was incarcerated with her deaf-mute mother until the age of six and a half, but, unlike Genie, quickly acquired normal language abilities through systematic specialist training." [1]

When Critical Period Hypothesis is discussed there is another notion that can not be away from the focus of investigator that called Ultimate Attainment." The two aspects, age of acquisition and differences in second language learning correlate with each other and reasonably comprise the hypothesis of age effect in SLA. The effect of age in SLA is encircled by the notion of Critical Period Hypothesis (CPH); therefore, a comparison to Ultimate Attainment (UA) is particularly relevant regarding CPH since UA is often considered to be the determining factor to identify successful SLA learners." [3] According to Li, the discussion of Ultimate Attainment or proficiency like a native speaker is closely related with CPH, as the prior claim behind this is that exposure to a second language from a very early age often can result in proficiency like a native speaker. Perhaps, it is true that children can attain a native-like proficiency without much striving, while adults study hard and diligently for years with unsatisfactory results However, some researchers oppose the advantage of being young learner because of having an accent or certain pronunciations and claim that "older learners are more effective learners when they get to be in a linguistics environment and have language input." [2] For that reason , the existence of CPH cannot be proved completely causing broad arguments. On the contrary, Ultimate Attainment must not be determining factor of being successful L2 learner as there are some factors like socio-psychological issues in individual learners and language barriers in picking up a language with minimal input that can influence L2 acquisition.[5]

RESEARCH DESIGN

Before beginning the research the participant was informed that my research's aim to identify whether CPH is true for L2 learners or not. To be more precise, how the language is acquired after puberty period as the researchers on this field claim that language learning becomes effortless after puberty. Furthermore, he introduced with Consent form and he signed it realizing the importance of conducting research on his language acquisition.

During a month a number of tests and methods were applied in order to determine the level of the learner's knowledge, how it is developing and to check the level of improvement in terms of learning vocabulary.

At the beginning of the research I prepared test that contain simple vocabulary to check the participant's background knowledge on the sphere of everyday use of English. The results of the test were not so unsatisfactory with these simple vocabulary (15 correct answers out of 30 questions) and as he wanted to gain more knowledge in the sphere of IT, the further tests were dedicated to cover special vocabulary on IT as he wanted to continue his career in the oversea. However, the results of the latter one were not as good as the former one and we tried to work on his weak points applying activities both in and out of classroom.

As an in-class activity to improve vocabulary knowledge we utilized several activities, one of them is called picture association. In this activity the participants task was matching the word with its appropriate picture and then making some new sentences using the very words. The vocabulary was related to the sphere of Information technologies and Computer that was really appealing for the learner as he really into his profession. He found this activity useful admitting that he came across most of these words in his job experience but he didn't know what exactly these words mean and he used to pronounce these words as how it is written, not according to pronunciation rules which made us to work on pronunciation as well. Since the words are related to the participant's job it was not so difficult to acquire and remember the new vocabulary. Another activity was matching the words in one column with their definitions in another column. The participant fulfilled the task with high enthusiasm as under teacher's guide and instructions. According to the participant, he feel confident if there is someone to check and correct his mistakes on time and he can easily understand his mistakes in such cases.

For improving both vocabulary and pronunciation we applied out-of-class activities as well. In this process I recommended him to record new vocabulary on his telephone with its translation that was introduced in the class and listen to these recording during the day. I decided to apply this activity since he found it difficult to remember new

vocabulary easily and it required much time to remember proper words while using them in context. Furthermore, I considered that it would also be beneficial to improve his pronunciation as he continuously listen and repeat provided vocabulary.

The participant clearly guided how to fulfill the tasks in order to enhance his vocabulary base and he himself also interested the outcomes of the research as it was interesting for him whether he can really acquire the language in his after puberty period equally with his groupmates who are young enough to acquire the second language better than him.

DATA COLLECTION AND FINDINGS

For collecting data of the conducting research I decided to keep a checklist for noting down the results of the tests that was done by participant also challenges and improvements he had experienced. Day after day I witnessed the reduction of mistakes however the results of the tests mostly fluctuated being unsteady. I also recommended my participant to write down his experiences, challenges that he encountered while doing tasks without teacher's help, results of the given tests in order to notice his improvement. At the end of the research we compared and reviewed our recordings to come one precise conclusion.

Initially, the results of the test that contained general questions on everyday English was moderate as he had basic background knowledge from his childhood and he solved the test relying his previous knowledge that he acquired before his puberty. However, he hesitated with the use of words that are unfamiliar to him and this kind of vocabulary required more time to chose the correct answer.

In terms of in-class activities, the participant can learn better when the proper instruction is given and controlled by teacher as the support of the teacher encourages him to perform better during the classes. Usage of illustrations and pictures for teaching vocabulary improved his learning abilities and helped remember words fast. Another point is that, his interest towards his sphere promoted to learn specific vocabulary efficiently as he comes across to these vocabularies every day in his profession. However, when it comes to other topic vocabularies, he didn't always remember the exact vocabulary after some period that caused him to think he couldn't learn English even he did his best.

In case of out-of-class activities listening to recordings of vocabularies didn't helped as much as we expected as he couldn't always focused the recording when he was on the way or at his working place. Even at home he found it difficult to concentrate on the recordings as he had a lot of responsibilities both at work and family. However, even if he repeatedly listened to recorded vocabulary he could not remember them in the further next day as from the perspectives of CPH both hemispheres of the

brain doesn't function equally after puberty period that is considered great distraction in acquiring the language.

Nevertheless, after a month when I tested the participant with the same level test as the initial one, the results showed that the subject achieved some improvements to acquiring vocabulary related to his job as from the very beginning he admitted it was easier for him learning vocabulary of IT sphere.

CONCLUSION

Having considered all the aspects of study, conducting research on how language is learned after puberty period, I came to final conclusion that in any case it is better to learn the second language until puberty. For the participant of my study, who is already far from comprehending classroom instructions because of his job and family issues, SLA was not as successful as I and the subject expected even though we both did our best to achieve native like fluency in English. Conducted research and collected data support the ideas of founders of CPH theory (Lenneberg, Penfield, Johnson) that language is learned well in specific period of human's life as the hemispheres of the brain that promotes language learning ability function appropriately until puberty period which begins approximately from the age of two and continues till thirteen, after which as Lenneberg claims because of neurobiological changes human brain makes the L2 learning process quite challenging for the language learner.

However, research caused me to understand that apart from age, there are some other factors that influence on learning the second language efficiently such as learning styles, character, lifestyle, culture, emotions, motivation, learning atmosphere, environment etc. The outcomes of the research reveals that CPH is closely connected with sociological, psychological as well as physiological factors of human life. Moreover, after research I understand that scientists of the CPH is partially right about considering neurological factors and age as the only factors that promotes successful language learning as strong desire and feeling of responsibility of the learner can lead good but not perfect results although they begin learning SL after their puberty.

All in all, the conducted research encouraged me to improve my teaching skills as my participant showed me how much the applied methods and activities were helpful and which sides of my teaching strategies should be changed in order to achieve better results. The research taught me that learning the second language in early ages far more beneficial as in childhood mind is more fresh and the people who desire learning language are recommended to begin the SLA as early as possible if they want to achieve native like fluency and perfectness in acquiring L2. To sum up, I one more time restate the opinion of the Lenneberg "The younger, the better"[4] as the conclusion of my conducted research.

References:

1. Curtiss, S (1977). *Genie: A psycholinguistic study of a modern day " wild child"*. New York: Academic press.
2. Ellis, R. (1994). *The study of second language acquisition*. Oxford University.
3. Li, Z.H.O.U. (2015). Can Adults Attain a Native-Like Accent in Their Second Language? *Sino-US English Teaching*, 12(6), 403-409.
4. Lenneberg, E. H. (1967). *Biological foundations of language*. New York: Wiley.
5. Mohammad Mosiur Rahman, Ambigapathy Pandian, Abdul Karim2 & Faheem Hasan Shahed *Effect of Age in Second Language Acquisition: A Critical Review from the Perspective of Critical Period Hypothesis and Ultimate Attainment* July 16, 2017.
6. Penfield, W., & Roberts, L. (1959). *Speech and brain mechanisms*. Princeton: Princeton University Press.

Web-sites:

- Xasanovna, M. S. (2023). *THE BASIC ASPECTS AND CHALLENGES OF TEACHING VOCABULARY FOR THE EFL LEARNERS* . *Horizon: Journal of Humanity and Artificial Intelligence*, 2(5), 46–50. Retrieved from <https://univerpubl.com/index.php/horizon/article/view/1359>
- Maxkamova Shahlo Xasanovna. (2023). *THE NOTION OF COMPETENCE IN TEACHING AND LEARNING ENGLISH LANGUAGE*. *Proceedings of International Conference on Modern Science and Scientific Studies*, 2(5), 13–17. Retrieved from <https://econferenceseries.com/index.php/icmsss/article/view/1979>