



Critical Period Hypothesis on Foreign Language Acquisition: A Case of Indonesian Learner of English

Ulil Fitriyah¹(✉), Truong Thao Uyen², and Nur Alfiana Isnaini¹

¹ UIN Maulana Malik Ibrahim Malang, Malang, Indonesia

fitriyah_ulil@bsi.uin-malang.ac.id

² FPT University, Ho Chi Minh, Vietnam

Abstract. This essay aims to investigate and further scrutinize Lenneberg's crucial era hypothesis theory (1967). This research presents the findings of an investigation of CPH's work on foreign language acquisition rather than looking into its efforts to learn a second language. The objective is to confirm the CPH theory's application to learning a foreign language. Data were gathered using the narrative inquiry method by interviewing participants and asking them to describe their experiences learning English. This study demonstrated that the CPH theory also applies to learning a second language. The finding suggested that it is easier for young learners to obtain the target language since their brains are still flexible and sensitive. Even if there is a slight chance for a foreign language learner to acquire morphology similar to that of a native speaker, an early start in exposing children to language learning will enable them to learn the language quickly.

Keywords: Critical Period Hypothesis · Foreign Language Acquisition · Language Attainment · Indonesian EFL Learner

1 Introduction

Common beliefs assert that learning a second language or a foreign language, e.g., English is most effective when it begins in early life. Children who begin studying English at an early age may have the chance to develop native-like skills. The younger the children begin learning the language, the closer their proficiency will be to that of a native speaker. This idea initially appeared in 1967 with Lenneberg's Critical Period Hypothesis (CPH) theory. According to his research, language can fully develop between the ages of two and fourteen, before puberty's onset [1]. This may lead to the conclusion that students who begin learning a foreign language at a later age will not be able to develop their language skills comprehensively.

Lenneberg's research was primarily focused on investigating first language learning. He did, however, assume that his findings might also be relevant to learning second languages. Patwoski contended that the age restriction for learning a second language, however, cannot be compared to learning a first language [2]. However, a significant and

growing body of research has examined Lenneberg's theory on the acquisition of second languages. Many findings have shown that the age-limit on first language acquisition postulated by Lenneberg is also relevant to acquiring second languages [3, 4]. In essence, there is an ongoing debate over the generalizability of most published research on this issue. Numerous researchers contend that the evidence supporting CPH has a variety of limitations and that various researchers have different age restrictions [5–8]. Others have also suggested that many other factors, beyond age maturation, may influence the development of language competence [9–11]. This shows that the critical age period is not the only element in language proficiency development.

This essay investigates and further analyzes the crucial period hypothesis notion proposed by Lenneberg in 1967. This study presents the findings of examining CPH's work on FLA rather than looking into CPH's work on SLA. Furthermore, it has been widely reported that phonological competency is improved in learners before age 6. While morphological and syntactic proficiency will be attained in total by about fifteen [4, 12]. This essay examines the morphological proficiency of an English speaker who has been studying the language formally since 12 in Indonesia.

Since there are significant variations between Indonesian and English in terms of morphological structure, particularly in affixation, the research will concentrate on speaker skills in verbal communication. The investigation's findings will next be examined and related to when the speaker started learning the language. This attempts to demonstrate how early language acquisition, particularly in morphology, affects language performance.

According to the notion of the onset of language acquisition, two terms—"critical period" and "sensitive period"—need to be defined precisely. The initial language acquisition discussion is frequently referred to as the "critical era," as indicated by Lenneberg [1]. However, the issue of second language learning often involves the sensitive phase. Meanwhile, according to numerous scholars, the term "critical period" refers to learning second and foreign languages, while the word "sensitive period" refers to learning first languages. However, this essay will use both terms interchangeably to address foreign language acquisition.

2 Research Method

This study uses a narrative approach. The paper begins with a summary of the participant's language-learning experience before moving on to the linguistic feature that will be examined and discussed. The theoretical underpinnings of the study are presented in the following part, after which the data-driven findings are presented, and the relationship between the findings and the theoretical underpinnings is discussed. Following the discussion of both the data findings and the theoretical framework, a conclusion will be drawn.

Interviews and audio recordings were used to collect the data. The subject was asked about her experience learning languages for about an hour before being asked to describe her previous, present, and future careers. The story was first recorded, then transcribed, then examined to identify the participant's use of grammatically incorrect sentences.

3 Case Study

The participant in this study is an Indonesian native speaker who is 40 years old. Since she was 12 years old, she had studied English formally in her native country in a classroom for almost nine years. However, she had begun informal English instruction with her cousin when she was eight. She learned new terms and their pronunciation from her cousin. She also learned new terms and how to pronounce the language through movies and from her cousin. She tried to adapt and mimicked some facial expressions she had seen in movies. She found that these learning methods were quite helpful in introducing her to English vocabulary and pronunciation. Her impression that memorizing English words was simple made it easier to study the language in her later years.

Before the 1990 s, Indonesian junior high schools required students to take English as a subject. However, my participant had taken an English class in a private course when she was twelve years old before beginning her formal education in junior high school. She picked up some fundamental English skills throughout this course. In this session, the teacher exposed the pupils to the fundamentals of English, such as pronouns, plurals and singular, this and those, etc., rather than pushing them to talk. When she should have taken an English class as a required subject in junior high, having this foundational knowledge of the language increased her pride and self-assurance. She could do this because she had learned English before the other classmates.

Further, this enhanced her internal commitment to studying English and sparked her interest in the language. In her second and third years of school, she continued to take a formal English classes in a private course even though she had a twice-weekly English class at her school. In this class, the instructor used a teacher-centered approach to emphasize the importance of learning to enhance vocabulary and pronunciation. She completed her English academic education at the teen intermediate level. She was still unable to communicate well in English, however. After completing her junior high school coursework, she enrolled in senior high school for an additional three years.

As a required subject, English was included in Indonesian school curricula, much like in junior high. However, the institution's primary goal in the English course was teaching formal English for exams. My participant did a further private course for adults from level 1 to 4 during her first and second school years. Students were urged to speak English in class while taking this course. As a result, my participant began actively speaking in English at sixteen. After finishing high school, she studied English for two years to earn a diploma. English was being utilized more frequently in her institution for daily conversation. English was also employed in a classroom as a language of instruction.

After receiving her diploma after two years, my participant continued using English since it was necessary for her to do so in her position as a teacher at an international primary school in Indonesia. Prior to moving to Australia, she interacted with students in the classroom and spoke with her fellow teachers using English. Because everyone in the culture spoke Indonesian or a regional language, she could not use English for regular contact outside of the educational setting. She moved to Australia for study purposes at 27 after working for six years.

She has more opportunities to study the language as a native directly from the native speaker because she has lived in Australia for about two years. Since she never paid

close attention to how grammatical her sentences were when she spoke, she discovered that communicating with natives was not an issue. Instead of acquiring proper grammar while living in Australia, she increased her knowledge of Australian slang. Because she had great confidence in her English speaking ability, she believed that speaking English was often more straightforward than speaking Indonesian (her first language). She occasionally felt more at ease using English because she had grown accustomed to it for daily communication.

Despite having decent English skills, she believed that her vocabulary was lacking. She frequently used the exact phrases in both her writing and speaking. In addition, she was still unsure how to employ affixations to complete suitable word phrases while discussing morphological competency. When my participant first began learning the word form, she was unaware. However, based on her description, it can be assumed that my participant began formal schooling at the age of thirteen and began learning both the structure of words (morphology) and grammatical sentences (syntax).

4 Theoretical Framework

Since there are morphological structure discrepancies between spoken and written Indonesian and English, it would be worthwhile to look into this aspect of language. Particularly in morphology, learners of Indonesian who are learning a foreign language are more likely to be perplexed by verb changes such as "study" for the present tense, "studies" for the third person singular, "studying" for the present progressive, and "studied" for the past participle. These word changes could lead to mistakes and misunderstandings for Indonesian speakers, and occasionally they could even cause skilled English speakers to stumble over their words. This is because Indonesian has no verb shift to indicate a statement for a different time. The English expressions such as 'she studies everyday', 'she studied in my house yesterday,' and 'she is studying now' will be written respectively as; '*dia belajar setiap hari,*' '*dia belajar di rumahku kemarin,*' dan '*dia sedang belajar sekarang.*' Additionally, several word derivations are perplexing in this regard, such as in the word educate, education, educational, educative, educationalist, educator, and educationalist.

Many Indonesians who learn English mix up the term origins when using them. In order to determine whether the participant in this study can employ those morphological changes effectively in her verbal communication or not, those kinds of morphological changes will therefore be thoroughly studied through the data gathered. The conclusion will thus be supported by evidence from the beginning of her experience learning English to confirm the critical period theory proposed by Lenneberg [1] and support the finding of Johnson and Newport [4] that late learners of English have a more challenging time mastering morphological features.

Lenneberg argued that exposure to language beginning at a young age is the only way for people to develop their language skills appropriately. Language capacity begins to appear between the ages of two and three, along with the development of the brain, and it gets better up until the early teens, or around twelve. This is due to the fact that young children's brains are more adaptable and sensitive to receiving speech and language [1]. Children during this time can acquire the language effortlessly if exposed to it. Indeed,

Lenneberg noted that it might be impossible for children to learn a language before two due to brain immaturity. Furthermore, he stated in his book *Biological Foundation* that when a person reaches puberty, their language learning capacity will gradually decline. Since there are anatomical changes in the cortex and the human brain's tissue makeup, learning language will be more challenging.

The lateralization of hemisphere function, crucial for language learning, shifts after puberty. The loss of cerebral plasticity does cause particular challenges for adults learning a language. However, this does not imply that the person cannot continue to learn the second language after reaching puberty. Adults still have the opportunity to pick up the language. According to Lenneberg [1], adults with ordinary intellect levels can pick up a language by the time they are twenty or forty. However, there may be what he described as "language-learning barriers" as adults, making it more difficult for them to pick up a second language than when they were younger. Language proficiency cannot be acquired spontaneously, yet there is a slight chance that an adult learner can acquire native-like proficiency.

Although Lenneberg's research was primarily concerned with acquiring first languages, he surmised that the critical period theory might also apply to learning second languages. Other scholars, such as Krashen [13] and Ioup et al. [11], disagree with this claim. Several scholars have criticized the crucial period concept as being inaccurate, and others have even asserted that the age restriction for first language acquisition does not apply to second language learning [2].

Krashen asserts that human brain lateralization develops fully by age five rather than during puberty [13]. This led him to believe that there is no crucial phase while learning a language. The ability to learn a second language may still exist in adults. Another study by Ellis [14] emphasizes Krashen's paper even more. According to this research, adults may be able to master the more complicated linguistic structures like syntax and morphology since they are still developing cognitively. Adults' analytical skills will help them develop sophisticated language structures. The earliest ages of people who arrive in the USA, however, show a better competency in syntax and morphology, based on the result of the study conducted by Johnson and Newport [4] that investigated 46 native Korean and Chinese speakers who arrive in the USA at ages 3 and 39 and stay for almost 3 and 26 years. They also noted that numerous studies that looked at the beginning stages of learning showed that adult learners appeared to be able to pick up the language quickly. However, adult language acquisition only results in temporary changes. White and Genesee [8] offer additional support for this claim. They claimed in this study that adult language attainment is temporal and that "faster" does not equate to "better." This indicates that adult learners with higher cognitive abilities can acquire language proficiency more quickly. They do, however, have a limited probability of developing native-like skills.

Another study by Ioup et al. [11] discovered that adult learners of second languages could still acquire native-like proficiency. Krashen advocated formal training for adult language acquisition. However, this study shows that adults can also learn a second language in a natural or informal setting [13]. According to a case study on Julie, who began learning Arabic in Cairo when she was 21, she could master the language entirely in two and a half years. According to this study, language immersion and a little help

from her environment were all needed for the participant to develop morphological and syntactic proficiency in Arabic. This study showed that adults could develop native-like competency through a natural process. However, Julie's success in learning a second language was unique among mature language learners. Julie has a good gift for words that not all adults possess. Therefore, Julie's situation could not apply to adult language learners as a whole.

Furthermore, Patkwocki [9] studied how grammar is learned when learning a second language. According to the study involving 67 American immigrants of various ages, pre-puberty immigrants use English more often in their surroundings because their English is more robust than that of post-puberty immigrants. According to Patkwocki, the age at which a learner begins language study is a factor that primarily affects the learner's acquisition of syntax in terms of syntactical capacity. Patkwocki [12] stated that young learners have higher long-term skill levels in second language morphology and syntax than adult learners. Long's research findings, which noted that native-like morphology and syntax only seemed conceivable for people beginning before age fifteen, support this position [12].

Additionally, Patkwocki [9] added that practice and instruction, as additional study variables, had a minor influence on language acquisition. The learner's motivation and attitude toward the language are additional characteristics frequently linked to the effectiveness of second language acquisition [10]. Language aptitude was also highlighted in [11], which is one reason Julie successfully acquired language proficiency. Contrarily, Long [12] claims that second language acquisition can be completed at six regardless of whether the learner has excellent motivation and has good opportunities to practice the language frequently or not. He claimed that native-like morphology and syntax could be learned before age fifteen. This shows that learning a second language is significantly influenced by age. Thus, if learning is initiated within the sensitive period, it may be possible to develop native-like proficiency in a second language. According to Lenneberg [1], the brain is still pliable and responsive during the sensitive phase. Numerous examples have demonstrated that learning or memorization is made more accessible if it is begun at a young age. Due to the limited influence of their first language, children acquire second languages more effectively than adults. This does not, however, imply that adults can acquire a language and become proficient in it. There is still a chance that an adult could acquire the language. They can even develop native-like competency in specific circumstances.

5 Findings

The findings of this study show that the participant's interchangeable usage of the morphological form does not constitute a mistake. This is demonstrated by her capacity to spontaneously and fluently use the words "teach" and "education" in a variety of contexts, as in the utterances "*I became an English **teacher**... right now I am **teaching**... I **teach** English also Math*". "*I have no **educational** background about **education***." This also occurs when a verb is changed to reflect a different tense. Even while there are inevitable mistakes in the way she uses the time to tell the story, like in the statements "*because I.. aa I don't know I **found** that dentistry is no my thing*", "*that's why I **took***

the master of educational leadership and management in aa.. Australia” and “*right now I am also teaching*.” She is still able to use verb modifications for the past correctly, present, and present progressive. Based on the interview results, my participant indicated that she learned how to utilize affixation correctly by copying others, such as teachers during classroom activities and classmates during conversations. However, when she began to use the phrases regularly while studying dentistry for her bachelor’s degree, it was discovered that the word “dentist” had been changed to “dentistry” in the data.

The more advanced topic required to assess the speaker’s proficiency in employing affixation in communication requires more recent data. Therefore it is too soon to determine if the speaker has already attained native-like competency. However, she claims that she occasionally finds it difficult, particularly when writing, to use the proper affixation, such as whether to use education background or educational background. The experience of my participant in learning the language is an intriguing finding from this study. She positively affected her attitude and motivation to learn English for her early start.

She had a sense of pride and confidence in being able to master the language in a classroom because she had earlier knowledge and English vocabulary than other students in her class. She performed well in her formal class as a result. Her success inspires her to continue improving her English. Her parents, who provide her with formal education and regular schooling, also encourage this. Thus, it can be said that my participant had exposure to various languages through formal education and formal private instruction. Even though she has received much input, she may not be able to express it. She cannot practice the language outside the classroom because her surroundings have no assistance. She started using her English more frequently once she started working on her English diploma. She continued honing her English after that till she left for Australia.

6 Discussion

There is a sensitive time in second language learning, as numerous scholars have demonstrated in age limitations on morphological competency [4, 9, 12]. The age at which some researchers experience different limitations, notably in the development of morphological competence, also applies to the acquisition of foreign languages. However, unlike learning a second language, mastering native-like morphology appears unachievable because of the absence of language use or interaction. As seen by numerous researchers, youngsters find it simpler to retain the words they have learned during this period, as in the instance of my participant, who began learning the language haphazardly at the age of eight. This enables her to recognize new words automatically. She inadvertently picked up the word forms from her cousin, who I believe taught her English words through amusing daily conversations. Her interest in watching animated movies helps to encourage her endeavor. As a result, even without formal language teaching or learning, she can still pick up the language and absorb it in her brain at this crucial time. Unfortunately, the environment did not support this activity. As a result, there is little encouragement for her to utilize the language in her regular communications, which could help the learner develop more vital communication skills.

Additionally, she begins taking formal language classes at the age of 13. At this level, the word form and grammatical phrases are presented. She may have learned the

word form implicitly by reading in the language course, even though she was unaware of whether it was being taught or not. This learning significantly impacts her in the following learning phase. She did master word form (morphology) before age fifteen, but she could not acquire true native-like proficiency. This is due to both a deficiency in language input and language production.

The finding also makes some intriguing points about attitude and motivation. The findings of this study demonstrate that motivation and attitude are still crucial components in the success of second/foreign language learning, even if Patwoski [2] and Long [12] do not consider these variables to be relevant components in their research. Based on the findings, learning a foreign language from a young age improves a learner's motivation and attitudes toward the subject. Despite the lack of adequate community support, these two elements motivate language learners to continue their studies. Enthusiasm toward the target language can encourage learners to progress in their language learning [15].

Furthermore, Gardner and Lambert [10] made the case that children's motivation impacts how successfully they learn their first language. They made the case that a person's attitude has a role in how good they are at picking up a second language. Although Lambert and Gardner did not address native-like achievement in their study, their findings concur with my own. Similar to Schouten [16], it was also suggested that sociological, psychological, and physiological aspects, in addition to the learner's age of exposure, play a role in how well they pick up a language.

Authors' Contributions. In collaboration with TTU, UF constructed the main idea of the research and created a grand design for this small research. Both also identified and classified related literature needed. At the same time, UF starts writing the draft, NA. I started collecting the data by interviewing the participant, transcribing, and helping UF analyze the collected data. UF wrote the rest of the draft. In the final step, TTU reviewed and proofread the draft.

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