DOES AGE AFFECT SECOND LANGUAGE ACQUISITION?

A literature review

Silfa Dzukhriyah1) , Aprilian Ria Adisti2).
English Education Department
UIN Salatiga
Salatiga, Indonesia
silfa357@gmail.com 1) , aprilian@iainsalatiga.ac.id 2)

Abstract

Language development and age are related in some aspects. There has been debate concerning the relationship between age and language learning for a long time. It is often believed that kids pick up languages more quickly than adults do. Hence, this article is aimed to determine about the age differences between young and adult language learners, the critical period theory, and the effect of age on second language learning. This study was conducted as library research that focused on the relationship between age and second language acquisition. The data was obtained from research articles that had been published at any period in indexed national or international publications. The result of this article is that there are other factors besides age that affect language acquisition. There are other additional elements that contribute to language development, both internal and external. Some experts claim that youngsters are only better in some areas, like as pronounciation, while being weaker in others, such as morphology, compared to the greater morphological skills of adult learners. The critical period hypothesis, a theory that contends that learning a second language is ideally started at an early age, supports the researcher's final finding that age affects the process of language acquisition.

Keywords – Age, Second language acquisition, Second language learning

Introduction

Language acquisition can be obtained naturally. A child's acquisition of their first language, often known as their mother tongue, is the first step toward linguistic mastery. Since a child does not know a language until he/she is fluent in it, language acquisition is a fairly drawn-out process. When a child learns his/her first language or mother tongue, a process known as language acquisition occurs in his brain (Rani, 2015).

One psycholinguistic aspect that affects language acquisition is age. There has been debate concerning the relationship between age and language learning for a long time (DeKeyser, 2013; Ellis, 2015; Ozfidan & Burlbaw, 2019). There isn't much data to support this, though. It is often believed that kids pick up languages more quickly than adults do. This is so that they may swiftly pick up any knowledge, including language, as they enter the "golden age." In contrast to other cognitive capacities, children have an innate, biologically-given ability for language acquisition, according to Chomsky's (2006) theory. Having said that, the human brain contains loci, which are like storage bins. Each box includes all of the world's languages along with their respective grammatical rules. Children can process a language this way, allowing them to communicate with it. So, learners will be more successful if they start learning a second language when they are young. While there is some validity to this idea, the study suggests that age has a complex impact on L2 acquisition (Ellis, 2015).

In addition, this study also looks at second language acquisition presumptions. The first presumption is that younger beginning perform better than older students. However, a lack of cognitive capacity and affective stability

may make it difficult for young children to comprehend early language learning instructions (Vygotsky, 2010). The second presumption is that young students do not feel frustrated. It has been discovered that the educational environment and methods play a significant role in how frustrated students of various age groups are. The third supposition is that younger students are more adept than older students. However, empirical study has shown that this is false (Zafar & Meenakshi, 2012; Al-Harbi, 2019).

In many aspects, younger students are very different from older students. Older learners are robbed of their intrinsic or subconscious manner of language learning due to their cognitive maturity. Sensorimotor activities, learning materials that are visually appealing, and environments that are realistic in the target language all benefit children immensely. The most important thing at this time is expanding one's vocabulary. Older students do well in structured situations with precise rules and directions. Except for pronunciation, older learners fare better academically than younger ones. Teenagers perform relatively poorly in public activities and benefit from repetition and memorization. Adults are more disciplined, self-driven, and responsible, which facilitates teaching. They benefit from structured teaching and a collaborative environment (Hyland, 2006; Ziglari et al., 2016; Ozfidan & Burlbaw, 2019).

Hence, The learning of second languages is influenced by age. The age differences between young and adult language learners, the critical period theory, and the effect of age on second language learning will all be covered in this article. The critical period theory and the question of whether or not younger learners are more competent than adult learners at learning will also be addressed in this article.

Methodology

This study was conducted as library research that focused on the relationship between age and second language acquisition. The data was obtained from research articles that had been published at any period in indexed national or international publications. Library research, according to George (2008), is a type of research that collects data by learning and comprehending data with a close connection to the problem from theories, books, documents, etc.

In conducting this library research using George's (2008) model, certain procedures were followed. The research topic was chosen as the initial step. It dealt with the connection between age and the learning of second languages. The second step involved developing the research questions. The third step involved choosing a research strategy, which involved skimming and browsing relevant information related to the research topic by reading books, articles, websites, and other sources such as previous research. The fourth step involved choosing the database to search in order to find resources. The researcher used a number of databases, including Google Scholar, National Journal accredited in Sinta, International Journal accredited in Scopus, and Books, to identify the research resources. The sixth step involved carefully reading the sources. The researchers concentrated on the relationship between age and second language acquisition, including the age-level of acquisition, second language acquisition, the critical period hypothesis, the differences between young and old learners based on age, and factors that affect second language learning. The seventh step involved reading critically to draw conclusions from the sources. The eighth step involved writing the report's

article draft, which was followed by the selection of conclusions based on the theories that had already been developed in the article.

Finding and Discussion

Age Stage In Acquisition Levels

Language acquisition levels, often known as a child's language development patterns or levels, are described by Lumentut & Lengkoan (2021). The four phases of language development identified in this study are as follows:

a. The babling Level (0.0-1.0)

The duration of a brief period beginning at age 0.0 Children can sound out all the languages of the world up until the age of 0 or 6. Babies under six months old can make noises in any language, anywhere in the globe. However, because the youngster only hears sounds from his mother's language, he will ultimately sound like his mother's language as well.

At the age of 0.6 to 1.0, during the second time period known as the Babylonian period, the child was taught how to pronounce the KV syllable pattern (consonants and vocals). The noises AAA, TAA, and mmmm were discovered in this study to be a kind of reputies in newborns between the ages of 7 and 12 months. However, the sensitive child will progressively stop sounding after they reach the following stage at age 1.0.

b. The holophrastic Level (1.0-2.0)

Between the ages of 1.0-2.0, the holophrastic was held. Children in this instance spoke one word with the intention of actually speaking a sentence. When a child says [mamma] [Tata], which most likely means milk, eat, or mother, the child may be trying to say something like, "I want to eat, mom," or "I want to follow my sister." Depending on the context in which the child is pointing at or requesting something nearby, another sentence may also be appropriate.

c. The two word greeting (2.0-2.6)

The children had just started using two words at this point. At first, a speech made up of these two words can seem like [Su] (means: milk) I want to drink milk, mum. Finally, it would actually pronounce two words, such as [Ma Su] to say, "Mom, I want to drink milk."

d. The beginning of grammar (2.6-3.0)

The child's grammar started using increasingly complex language in his or her early years, including the use of afiction. Sentences with just the main word and no words of duty are frequently used in speech. Because of this, sentences that are comparable to telegram sentences can also be called telegraphic sentences (telegram sentence).

Along with the previously mentioned four advanced stages, Lumentut & Lengkoan (2021) also combine four additional advanced stages that are rhythmic with children's cognitive development and more in-depth in accordance with the findings regarding the linguistic process that occurs in the actual children.

a. Sensorimotori stage (birth up to 2.0-3.0)

When Almeera (9 months) was offered a toy with brilliant colors, Almeera grabbed the item and then seized another object she spotted nearby as if it were a brand-new toy. Almeera has a method of grasping and holding that is integrated into a new thing, to put it another way. Almeera used the release and scheme, which involves visually monitoring the path of the moving object, when she dropped the toys he was holding and saw them fall to the ground in the process. When the prized toy is placed in the box, Almeera is no longer able to see it, and it appears that he has forgotten about the colorful toys and has moved on to other

toys, as if he was unable to recall or visualize the prized item. Well, the kids were paying attention to what she was doing and seeing at this sensory period. Their plans are designed on human behavior and perception.

b. Pre-Operationage (3.0-7.0)

At this age, children's communication abilities will develop quickly, and their ability to express and reflect on a variety of objects and events will likely expand as they gain vocabulary. Verbal communication, a new type of social connection, is likewise based on language. Children can now communicate their ideas and acquire information that they have never encountered. Like Fika (5 years, 6 days), in response to her mother's birthday gift, said, "This necklace has an image of Hello Kitty, Mom, just like it does in the bar." It demonstrates how the Pre-Operationage youngster has used language to express their thoughts in concrete ways. However, it is common for children at this age to engage in egocentric speech, which is when they speak without taking into account what their known or unknown listeners might think about the subject being addressed.

c. Concrete Operational Stage (7.0-12.0)

Children who have reached the concrete operational stage can think more logically since their thoughts are structured into broader mental processes. At this age, kids keep honing their brand-new thinking abilities for years. Like an elementary school student, who is in the concrete operational stage of development, They are already able to evaluate objects using equipment scales, see calculations being completed using a number of counting tools, and organize themselves using pickets at school and in their classes. However, they continue to struggle with comprehending complex concepts and finding solutions to issues that involve many uncertainties regarding the variables or hypotheses. That talent only manifests at the last stage.

d. Formal operational stage (12 y.o. to adulthood)

At this age, children and teenagers are capable of imagining and thinking about ideas unrelated to the physical world. They have moreover discovered a logical conclusion. Three formal operational capacities are required for the construction of a scientific technique of prior thought: the first is logical reasoning for the demise of the hypothesis; the second is both intrusion and hypothesis testing; and the third is both filling and variable control. At this level, most children can use formal operational reasoning and handle concepts that are in conflict with their ability to discern between distinct worlds, possibly even better than the real world. They encourage idealism in political, social, and ethical matters as a result.

Critical Period Hypothesis

The idea of the critical period hypothesis, which was primarily derived from biology, was first presented by two neurobiologists, Penfield, W., & Roberts (1959; Lenneberg (1967) developed it in order to assist individuals learn second languages. Second language acquisition was later introduced. The Critical Period Hypothesis postulates that second language acquisition is easier and more successful during a specific time period, after which it becomes more challenging and rarely successful. During this time, language learners can obtain native-speaker competency. This assumption gives rise to the notion that it is beneficial to acquire a second language throughout childhood. During this period, young learners will pick up a language easily and intuitively; nevertheless, it appears that after that, they will find it challenging to learn and use a second language. The Critical Period Hypothesis therefore believes that kids will learn

languages better than adults (Wang, 2015; Hu, 2016).

Ozfidan & Burlbaw (2019) conclude that the foundation for this theory is the brain's structure. According to Lenneberg (1967b), puberty refers to a period of time when the localization of language-processing skills in the left hemisphere of the human brain was connected to biological change/development. This period of time is known as "lateralization." Therefore, when it comes to acquiring a language, children's brains are more malleable than those of adults. In line with the Critical Period Hypothesis proponents, children's cortex is more flexible than that of adults in some ways because of neurological changes, which are a distinguishing property of the brain. As a result, the process by which infants and adults learn languages is different, and the Critical Period Hypothesis theory appears to be a strong one in light of this.

In recent years, since the experts did not make any conclusions on the Critical Period Hypothesis and second language learning, the study's results have proven to be controversial. Conflicts over the Critical Period Hypothesis have grown quickly, and it has been discovered that a number of things prevent prepubescent learners from developing pronunciation that is native-like (Hyltenstam & Abrahamsson, 2000; Rahman et al., 2017; Ozfidan & Burlbaw, 2019) claim that no post-Critical Period Hypothesis L2 learner has yet attained the skill level of a native speaker when describing the importance of Critical Period Hypothesis in the acquisition of a Second Language. When it comes to their level of lexico-grammatical competence, second-language learners—even those who are very young—differ from native speakers. Additionally, the same idea holds true for the development of pronunciation in second languages. Despite being exposed to an L2 in an L2 context, young children frequently end up speaking the L2 with a non-native accent, claims (Flege et al., 2003).

These include inadequate exposure to the target language, an unsuitable learning environment, L1 interference, the dominance of L1, and other issues. The extended use of a native language (a) interferes with correct L2 learning or (b) reduces the opportunity for input and output of L2, according to Archila-Suerte et al., (2012). The reason why some early bilinguals exhibit foreign accents was further clarified by Archila-Suerte et al., (2012). They clarified that the frequent usage of a child's L1 was the cause of the lack of native-like fluency and correctness in pronunciation. The input and output of the target language may also decline as a result of this usage (Ozfidan & Burlbaw, 2019).

Meanwhile, there is support and criticism of CPH, accompanied by opinions and evidence from previous researchers.

a. Support for Critical Period Hypothesis

Some scholars provide a thorough conclusion regarding the age factor: it is acknowledged that there is some supporting evidence when the hypothesis that children starting a second language sooner can achieve higher proficiency than adults starting later was mentioned, but there is no opposing empirical research proof (Wang, 2015). This is the hypothesis for “the younger the better” position.

The strongest supporting evidence for the critical period in second language learning has traditionally been Johnson and Newport's (1989) findings. Johnson and Newport acknowledged that there is, in fact, a crucial period for learning a second language in their study on critical period effects in second language acquisition. According to Johnson and Newport, learning a foreign language

becomes less difficult around the age of six.

Numerous conclusions that were pertinent to the subject were reached by Long (1990). First off, the age at which learning started had an influence on both the initial rate of acquisition and the final level of accomplishment. The acquisition of many linguistic domains was both successful and incomplete throughout critical periods that governed the development of both first and second languages, respectively. Thirdly, there was a cumulative loss of capacity with age rather than a single occurrence. Last but not least, some people started deteriorating as early as age six. A key phase for acquiring a second language, according to Patcowski (1980), may have actually existed. He wanted to see whether there would be a crucial time for learning a second language, therefore he conducted this study.

However, Snow and Hoefnagel-Hohle (1978) supports the idea that while children weren't always faster, they were generally more successful than adults in SLA. Adults appear to advance more quickly than children in the early stages of processing, yet children ultimately outperform adults and adolescents in terms of accomplishment (DeKeyser, 2013). Based on this viewpoint, it can be shown that it supports the idea that "the younger the better in the long run."

Additional research from Wang (2015), conclude in his research that specifically in the areas of listening and speaking, The current study's findings indicate that there are significant differences between the various types of second language learning, with different age onsets and relative achievements. This result is in line with Penfield's work, which was the first to link the adage "the earlier, the better" to learning a foreign language.

b. Critical Period Hypothesis Criticism

The specific age at which lateralization occurs has been disputed by certain research, raising questions about the crucial period hypothesis' neurological basis. The stance that "the older, the better" is another alternative. It demonstrates that adults are more adept and effective at learning languages than children. To back up this theory, some research have been conducted. The ability to learn L2 'improves with age, according to Ekstrand (1976). The faster acquisition rate among later beginners is preferred in Harley's research (1986). We can conclude that adults are the most effective language learners as a result.

Reviewing the Critical Period Hypothesis (CPH) research conducted by Chinese academics reveals that many of them are on the opposing side. According to; 1) Gui Shichun, who wrote about psycholinguistics, "It is difficult to determine the best age for learning a foreign language, so we cannot simply draw any conclusions as to whether there is a critical period. Instead, we should study the learning features of different stages and then fully utilize them in foreign language learning". 2) Shu Dingfang believed that students might succeed in studying a foreign language at any age. On the basis of a fine language environment and scientific teaching techniques, children who began learning a foreign language at the age of 12 can also advance to the level of learners who speak the language natively. 3) Dai Weidong added that learners can successfully pick up a foreign language at any starting age and that the starting age had minimal bearing on the acquisition processes. The degree of some language abilities was the obvious result of the age influence on acquisition. Additionally, the success rate of language acquisition would change depending on how much time each person spent studying the language. 4) Wang Lifei came to the

conclusion that "Further research is necessary to determine whether there is a critical phase in second language acquisition and whether there are many critical periods of different language skills." In one of his theses, 5) Despite the fact that there have been numerous studies with a variety of methodologies, goals, theoretical underpinnings, and outcomes, Liu Zhenqian expressed his opinions by stating: "In reality, there is no Critical Period Hypothesis for second language acquisition, or at the very least, there are not enough evidences. Even in phonology, there is a difference in accomplishment between later and early learners that is not solely due to age but also involves a number of other important elements. 6) Through his experiments, Liu Jianfu seeks to determine if students of all ages went through the same learning process in terms of grammar. He claimed that there is no critical age for grammar learning and that grammar may be taught to various learners at different ages.

According to these studies and arguments, it can be said that younger learners will succeed over the course of a long time of language acquisition while older learners will acquire a language more quickly and effectively. It persuades us that younger learners would perform better than older learners in the long run of language learning since they are at a better stage of second language acquisition (Hu, 2016).

However, there is ongoing discussion among researchers over the idea of Critical Period Hypothesis in Second Language Acquisition. Further study is needed to determine whether it exists and, if so, which language learning processes other than phonological acquisition are regulated by Critical Period Hypothesis.

Differences in Learning between Young and Old Learners Based on Age

The Critical Period Hypothesis still maintains control over each person's capacity to learn a second language, with research findings indicating that younger learners perform better than older ones. Johnson and Newport (1989) discovered a significant correlation between proficiency in the second language and starting to learn a language early. Before the age of ten, they claim that there are few disparities in their second language abilities, and that older learners will not have native-like language skills and are more likely to have very different final levels of accomplishment. Therefore, it is true that the end results of learning a second language differ between children and adults, as most academics would concur. Younger learners performing better on phonetic/phonological tasks was a topic covered by Singleton and Ryan (1989). When a child starts early, he/she can speak like a native. The primary difference between adult and young learners is cognitive maturity. While adults are able to think abstractly, children lack cognitive abilities such as complex brain-based capabilities that are necessary for carrying out a complex action (Ozfidan & Burlbaw, 2019).

Therefore, it may be said that although young learners will ultimately learn a second language well, they are not actually superior at it. Children will perform better than adults in some areas, such as speaking with a native accent, but adults will learn languages more quickly. However, it should be acknowledged that, according to the Critical Period Hypothesis, if young learners were exposed to second language learning earlier in their development, they would have a competitive advantage over adults and achieve success in second language acquisition in the long run. Children are thought to be the best age to acquire a second language (Hu, 2016).

Factors Affecting Age and Second Language Learning

Another perspective opposes the critical period theory and claims that "the learning context in combination with age-related affective and cognitive characteristics could account for some of the variation in performance between child and adult L2 learning" (Mendy, 2017).

Hu (2016), states that there are other elements besides age that have an impact on how well children and adults learn second languages. As a result, cognitive, educational, social-psychological, and neurological aspects are those that are associated to age. We may acknowledge that, according to Critical Period Hypothesis, age will have an impact on language learning, but it is also cognitive, social-psychological, and other elements that will certainly have an impact on language learners' acquisition of a second language

According to Scovel (1988), maturation-related changes in the brain may be exactly as Lenneberg hypothesized, but they can still be invoked as determinants. Lenneberg's argument, however, contends that non-biological elements such as non-biological cognitive, educational, and social factors allow children and adults to acquire language in different ways. They are thought to be the deciding elements in second language acquisition. Age of the student is therefore one of the factors that can influence how he approaches learning a second language. However, other significant determinants of learners' eventual success in language learning, such as motivation and opportunities for language learning, are equally significant (Hu, 2016; Ozfidan & Burlbaw, 2019).

Several internal and external factors, which can have both good and negative consequences, have an impact on Second Language Acquisition. So (2007) and Andrews (2017) mention some factors affecting language learning, those are intellegence, aptitude, cognition (learning style), personality (extroversion and introversion), experiences, motivation (instrumental and integrative), culture and status are some of the most important internal elements. External factors include things like the curriculum, instructional materials, socioeconomic situation, culture, and the availability of native speakers. In other words, the interaction of social, affective, psychological, and cognitive elements affects competence and performance in second language acquisition.

Because of this, it is impossible to determine when someone should begin learning a language using their age. Each person has a different way of learning, which influences the process of language acquisition. Every person has a different chance of success when learning a second language. In addition to age, learning style can also have an impact on the process of language acquisition. Children, adolescents, and adults all have unique learning styles. According to Figueiredo et al., (2008), children learn languages through linguistic sense and sensation. According to this theory, language learners carry "emotional obstacles" to class with them. These obstacles, such as stress, frustration, anxiety, inhibition, and lack of confidence, may limit learning. Teachers should develop a positive learning atmosphere where students are comfortable taking risks and making mistakes in order to support student progress.

Conclusions

Language development and age are related in some aspects. Numerous studies indicate that learning a second language early on is preferable. This helps children learn the second language more effectively and speak it fluently. Babling level (0.0–1.0), holophrastic level (1.0–2.0), two-word welcome (2.0–2.6), and the start of grammar (2.6-3.0) are a few age stages in the language learning

process. includes four additional stages: the sensorimotor stage (birth to 2.0–3.0), pre-operational age (3.–7.0), concrete operational stage (7.0–12.0), and formal operational stage (12.0-adulthood). Age and language acquisition are discussed in the critical period hypothesis. According to the notion, children as young as ten years old can learn language. Children who are older than ten will have certain challenges and have a slower rate of language acquisition. The critical era theory is still up for debate, though. Younger learners are better, according to some academics who support the argument, whereas adult learners are superior, according to other researchers who disagree with the theory. The assumption that there are other factors besides age that affect language acquisition lends support to this. There are other additional elements that contribute to language development, both internal and extrinsic. Some experts claim that youngsters are only better in some areas, like as pronunciation, while being weaker in others, such as morphology. compared to the greater morphological skills of adult learners. The critical period hypothesis, a theory that contends that learning a second language is ideally started at an early age, supports the researcher's final finding that age affects the process of language acquisition.

References

Al-Harbi, S. S. (2019). Language development and acquisition in early childhood. *Journal of Education and Learning (EduLearn)*, *14*(1), 69–73. https://doi.org/10.11591/edulearn.v14i1.14209

Andrews, K. (2017). Culture, curriculum, and identity in education. *Journal of Ethnic and Cultural Studies*, *4*(2), 99–101.

Archila-Suerte, P., Zevin, J., Bunta, F., & Hernandez, A. E. (2012). Age of acquisition and proficiency in a second language independently influence the perception of non-native speech. *Bilingualism*, *15*(1), 190–201. https://doi.org/10.1017/S1366728911000125

Chomsky, N. (2006). Language and Mind. In *Language and Mind*. https://doi.org/10.1017/cbo9780511791222

DeKeyser, R. M. (2013). Age Effects in Second Language Learning: Stepping Stones Toward Better Understanding. *Language Learning*, *63*(SUPPL. 1), 52–67. https://doi.org/10.1111/j.1467-9922.2012.00737.x

Figueiredo, S., Silva, C. F. D., & Queralt, M. B. (2008). *SECOND LANGUAGE LEARNING : MOTIVATIONAL PROFILE IN*. *7*, 1–16.

Flege, J. E., Schirru, C., & MacKay, I. R. A. (2003). Interaction between the native and second language phonetic subsystems. *Speech Communication*, *40*(4), 467–491. https://doi.org/10.1016/S0167-6393(02)00128-0

George, M. W. (2008). *The elements of library research*. Princeton University Press.

Hu, R. (2016). The Age Factor in Second Language Learning. *Theory and Practice in Language Studies*, *6*(11), 2164. https://doi.org/10.17507/tpls.0611.13

Hyland, K. (2006). Feedback in second language writing : contexts and issues. *Language Teaching*, *39*, 83–101.

Hyltenstam, K., & Abrahamsson, N. (2000). Who can become native-like in a second language? All, some, or none? *Studia Linguistica*, *54*(2), 150–166. http://dx.doi.org/10.1111/1467-9582.00056

Lenneberg, E. H. (1967a). *Biological foundations of language*. Wiley.

Lenneberg, E. H. (1967b). The Biological Foundations of Language. *Hospital Practice*, *2*(12), 59–67. https://doi.org/10.1080/21548331.196

7.11707799

Lumentut, Y., & Lengkoan, F. (2021). the Relationships of Psycholinguistics in Acquisition and Language Learning. *Journal of English Culture, Language, Literature and Education*, *9*(1), 17–26. https://doi.org/10.53682/eclue.v9i1.1894

Mendy, J. (2017). *Key HRM Challenges and Benefits*. *October*, 1–24. https://doi.org/10.4018/978-1-5225-2820-3.ch001

Ozfidan, B., & Burlbaw, L. M. (2019). A Literature-Based Approach on Age Factors in Second Language Acquisition: Children, Adolescents, and Adults. *International Education Studies*, *12*(10), 27. https://doi.org/10.5539/ies.v12n10p27

Penfield, W., & Roberts, L. (1959). *Speech and brain mechanisms*. Princeton University Press.

Rahman, M. M., Pandian, A., Karim, A., & Shahed, F. H. (2017). Effect of Age in Second Language Acquisition: A Critical Review from the Perspective of Critical Period Hypothesis and Ultimate Attainment. *International Journal of English Linguistics*, *7*(5), 1. https://doi.org/10.5539/ijel.v7n5p1

Rani, S. (2015). Pemerolehan Bahasa Pertama Anak MenurutTinjauan Psikolinguistik. *Lentera*, *18*(1), 68–71.

So, Y. (2007). How Languages are Learned. *Issues in Applied Linguistics*, *15*(2). https://doi.org/10.5070/l4152005088

Vygotsky, L. S. (2010). Mind and Society. In *Boston Studies in the Philosophy and History of Science* (Vol. 287). https://doi.org/10.1007/978-90-481-9225-0_10

Wang, M. (2015). A Study on the Relationship between Age Onset of English Learning and English Achievement. *Theory and Practice in Language Studies*, *5*(1), 164. https://doi.org/10.17507/tpls.0501.22

Zafar, S., & Meenakshi, K. (2012). Individual Learner Differences and Second Language Acquisition: A Review. *Journal of Language Teaching and Research*, *3*(4), 639–646. https://doi.org/10.4304/jltr.3.4.639-646

Ziglari, L., Ozfidan, B., & Dixon, Q. (2016). Self- and Other-Repairs in Child-Adult Interaction: A Case Study of a Pair of Persian-Speaking Twins. *International Journal of English Linguistics*, *6*(4), 52. https://doi.org/10.5539/ijel.v6n4p52