注意:考試開始鈴響前,不得翻閱試題,並不得書寫、畫記、作答。

國立清華大學 114 學年度碩士班考試入學試題

系所班組別:外國語文學系

乙組(語言研究與教學組)

科目代碼:4101

考試科目:英文閱讀與寫作

-作答注意事項-

- 1. 請核對答案卷(卡)上之准考證號、科目名稱是否正確。
- 考試開始後,請於作答前先翻閱整份試題,是否有污損或試題印刷不清,得舉手請監試人員處理,但不得要求解釋題意。
- 3. 考生限在答案卷上標記 由此開始作答」區內作答,且不可書寫姓 名、准考證號或與作答無關之其他文字或符號。
- 4. 答案卷用盡不得要求加頁。
- 5. 答案卷可用任何書寫工具作答,惟為方便閱卷辨識,請儘量使用藍色或黑色書寫;答案卡限用 2B 鉛筆畫記;如畫記不清(含未依範例畫記)致光學閱讀機無法辨識答案者,其後果一律由考生自行負責。
- 6. 其他應考規則、違規處理及扣分方式,請自行詳閱准考證明上「國立 清華大學試場規則及違規處理辦法」,無法因本試題封面作答注意事項 中未列明而稱未知悉。

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共_4_頁,第_1_頁 *請在【答案卷】作答

Below is an essay generated using ChatGPT-40, which focuses on first language acquisition and second language learning. Please read through the essay and complete the following English writing tasks:

- 1. Write a summary of the differences between first language acquisition and second language learning discussed in the essay. The summary should not be longer than 200 words and should not include direct quotes from the essay. That is, you should paraphrase everything. (40%)
- 2. Large language models such as ChatGPT are known to have issues such as imprecision and hallucination. Please identify all potentially problematic statements regarding first language acquisition or second language learning in the essay and explain carefully why they might be problematic. Please note that you should compose an essay no longer than 800 words, rather than simply make a list of short individual points. (60%)

Language acquisition is one of the most intricate and captivating processes humans undergo. Both first and second language learning involve complex interactions between cognitive abilities, social environments, and individual differences. The ways children and adults acquire their first (L1) and second (L2) languages differ profoundly due to variations in brain plasticity, motivations, exposure, and learning strategies. This essay explores these distinctions and the mechanisms that underpin language learning in both age groups, expanding on their similarities and differences with a broader discussion of contributing factors.

First language acquisition begins from the moment a child is born. Infants are biologically equipped to acquire language, demonstrating an innate sensitivity to linguistic input. Theories like Noam Chomsky's Universal Grammar suggest that humans are born with an inherent capacity to grasp the structural rules of language. This innate mechanism enables children to process and produce language rapidly. Early on, infants exhibit the ability to distinguish between the phonemes of all languages, a skill that narrows as they grow and focus on the sounds of their native tongue. By six months, most infants specialize in recognizing the phonemic inventory of their L1, discarding the ability to perceive non-native contrasts. This specialization is crucial as it sets the foundation for further linguistic development.

The process of first language acquisition unfolds in predictable stages. During the prelinguistic stage, infants communicate through crying, cooing, and babbling. These sounds lack specific meaning but are essential in the development of articulatory control. Around one year of age, children enter the single-word stage, producing utterances like "mama" or "ball." These words are not merely random but represent significant objects or actions in their environment. Over time, vocabulary grows exponentially as children move into the two-word stage, combining words to form simple phrases like "want cookie" or "big car." By the age of three, most children achieve remarkable fluency, using complex sentences and grasping grammatical rules. intuitively.

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共_4_頁,第_2_頁 *請在【答案卷】作答

What makes first language acquisition so effective in childhood is the high degree of neuroplasticity in the brain. During early childhood, the brain is exceptionally adaptable, allowing children to absorb and internalize linguistic structures effortlessly. This contrasts with adults, whose brains are less plastic and thus less suited for language acquisition. Additionally, social interactions play a pivotal role in L1 learning. Parents and caregivers naturally engage in child-directed speech—simplified, exaggerated, and repetitive language that captures a child's attention and facilitates learning. This interactive environment ensures that children are exposed to meaningful linguistic input, which is critical for acquiring their first language.

The concept of a "critical period" is central to understanding first language acquisition. Research suggests that there is a biologically determined window, typically during early childhood, when the brain is most receptive to linguistic input. If children are deprived of language during this period, as seen in rare cases of extreme neglect, their ability to acquire language fully may be permanently impaired. This highlights the importance of early exposure and interaction for successful language development. In typical environments, however, children are surrounded by rich linguistic stimuli, enabling them to achieve full native competence in their L1.

Second language learning, on the other hand, presents a more variable and challenging landscape, particularly for adults. While children can often learn additional languages with the same ease as their first, adults face significant barriers. One of the primary reasons for this is the critical period hypothesis, which suggests there is a biologically determined window during which language learning is most effective. After puberty, the brain's plasticity diminishes, making it harder for adults to achieve native-like proficiency in an L2. This phenomenon is most evident in the areas of phonology and grammar, where adult learners often retain an accent and struggle with syntactic nuances.

For children learning a second language, the process is strikingly similar to first language acquisition. They rely heavily on immersion and interaction, gradually picking up vocabulary and grammar through context and usage. Young learners also benefit from the ability to compartmentalize languages, avoiding interference between L1 and L2. This capability diminishes with age, making adults more prone to transfer errors—applying rules or patterns from their native language to the second language. For example, an English speaker learning Spanish might mistakenly say "Tengo 25 años" as "I have 25 years," mirroring English syntax instead of Spanish norms.

Motivation and cognitive strategies play a significant role in adult second language learning. Unlike children, whose language acquisition is driven by necessity and natural development, adults often learn an L2 for specific purposes such as career advancement, travel, or personal growth. This instrumental motivation can enhance learning, but it also introduces variability; learners who lack intrinsic interest or face high pressure may struggle to retain what they learn. Additionally, adults tend to rely on explicit learning strategies, consciously studying grammar rules and vocabulary rather than acquiring them implicitly through exposure. While this approach can lead to rapid progress in the early stages, it often results in rigid language use that lacks

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共_4_頁,第_3_頁 *請在【答案卷】作答

fluency and spontaneity.

Exposure and context are crucial for both children and adults in acquiring an L2. Immersion environments, where learners are surrounded by the target language, are particularly effective. For children, attending bilingual schools or growing up in multilingual households facilitates seamless second language acquisition. Adults, however, may find it challenging to create such immersive conditions, especially if they are constrained by work or social responsibilities. Technology and language learning apps attempt to bridge this gap, offering access to native speakers, authentic materials, and interactive exercises. Nevertheless, these tools cannot fully replicate the depth of learning that occurs through consistent, meaningful interactions in real-world contexts.

Another critical distinction between L1 and L2 learning lies in the role of feedback. In first language acquisition, correction by caregivers is rare and often indirect. Instead of pointing out grammatical errors, adults usually model the correct form through repetition or rephrasing. For instance, if a child says, "Me want cookie," a caregiver might respond, "Oh, you want a cookie?" This implicit correction allows the child to refine their language skills without feeling discouraged. In second language learning, particularly for adults, feedback is more explicit. Teachers and peers correct mistakes directly, which can be effective but also intimidating, potentially hindering progress if the learner becomes overly self-conscious.

The relationship between cognition and language learning also varies across age groups. Children's brains are wired for implicit learning, absorbing language naturally without conscious effort. This ability diminishes with age as adults rely more on their developed cognitive skills, such as memory, analysis, and problem-solving. While these skills can be advantageous for understanding complex grammar or expanding vocabulary, they often come at the expense of fluency. Adults may overanalyze or hesitate while speaking, leading to fragmented or unnatural communication.

Cultural and social factors further complicate second language acquisition for adults. Unlike children, who often integrate into their peer groups through language, adults may face social barriers or stigma when attempting to speak an L2. Fear of making mistakes, coupled with societal expectations of linguistic competence, can inhibit practice and slow progress. Additionally, cultural differences in communication styles—such as varying norms for politeness or nonverbal cues—can create misunderstandings that compound the challenges of learning a second language.

Despite these difficulties, adults possess certain advantages in second language learning. Their advanced metacognitive skills enable them to set goals, monitor their progress, and adapt strategies to suit their needs. They also have access to a wealth of resources, from formal classes to online platforms, that cater specifically to adult learners. Moreover, adults often bring prior knowledge and life experiences to the learning process, which can provide context and meaning to new vocabulary and concepts.

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共_4_頁,第_4_頁 *請在【答案卷】作答

Neuroscientific research sheds further light on the differences in language learning between children and adults. Brain imaging studies reveal that while children process language predominantly in the left hemisphere, adults often engage additional areas, including the right hemisphere, when learning an L2. This difference may explain why adult learners find it more challenging to achieve native-like fluency but are better at leveraging cognitive strategies and analytical thinking. Moreover, adults who learn an L2 later in life often activate regions of the brain associated with working memory, reflecting their reliance on explicit learning and conscious practice.

The sociocultural theory of language learning, proposed by Lev Vygotsky, emphasizes the importance of social interaction and cultural context in acquiring both L1 and L2. For children, language development occurs through interactions with caregivers, teachers, and peers, who provide scaffolding and gradually reduce support as the child becomes more proficient. Adults, too, benefit from social interaction in language learning, but they may need to seek out opportunities actively, such as joining language exchange groups or participating in cultural activities. The sociocultural environment shapes not only linguistic proficiency but also attitudes and beliefs about language use, which can significantly influence motivation and confidence.

In conclusion, the processes of first and second language acquisition differ significantly between children and adults due to variations in brain plasticity, cognitive strategies, social contexts, and motivations. Children acquire their first language effortlessly through immersion and interaction, guided by innate biological mechanisms and supported by their environment. Second language learning, especially for adults, is a more conscious and effortful process that requires explicit instruction, practice, and perseverance. Despite the challenges, both children and adults demonstrate remarkable adaptability in mastering new languages, showcasing the extraordinary flexibility and resilience of the human mind. Language learning is not merely a cognitive achievement but also a deeply social and cultural endeavor, reflecting the profound interconnectedness of communication and human experience. As research continues to uncover the nuances of language acquisition, it is clear that our capacity for learning and using language is one of humanity's most remarkable traits.