The Science of Early English Learning: Cognitive and Linguistic Advantages for Non-Native Speakers

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DOI: https://dx.doi.org/10.47772/IJRISS.2025.903SEDU0181

Received: 12 March 2025; Accepted: 24 March 2025; Published: 27 April 2025

ABSTRACT

In investigating the linguistic and cognitive advantages of early English language learning and its implications for non-native speakers, this study also considers the efficacy of English instructional approaches. By employing current theoretical frameworks for language acquisition—including statistical learning, sociocultural perspective, and neurocognitive development—the research specifically examines how early experiences with English affect subsequent vocabulary development, grammar accuracy, pronunciation, and cognitive functions such as executive control, memory, and problem-solving. The primary research design for this study was quantitative and descriptive/correlational. Palys and Moser (2009) provided guidance for the examinee to examine the relationships and possible differences between age of first English exposure and developmental outcomes. As established standard research protocol, all data were collected through a questionnaire survey in structured format and administered to parents and teachers of a sample of 150 non-native English-speaking children ages 3-7 years, whom were enrolled in early childhood education programs that involved English instruction. The questionnaire included measures of linguistic competence and cognitive abilities based on responses to a five-point Likert scale, which was validated by an expert panel and pilot study to ensure population appropriateness. The reliability of the questionnaire was assessed using Cronbach's alpha and assessed the construct validity through correlation analysis of theoretically related variables. Data was analyzed using SPSS version 26 which consisted of descriptive statistics, correlated analysis and reliability analysis. Findings determined children with early exposure to English demonstrated better overall linguistic skills (e.g. vocabulary, grammar accuracy, near-native pronunciation) and greater cognitive outcomes (e.g. memory retention, executive function and abstract reasoning ability). The study concludes with implications about early exposure, structured interaction English lessons, immersive language experiences, and parental support are important elements of language instruction programming for all children. Also, the need for a standard curriculum to meet instructional needs (language development) is necessary. Additionally, the implications for longitudinal research for language acquisition measures for non-native learners is also provided in the study.

Keywords: Cognitive development, Early childhood education, Linguistic proficiency, Non-native speakers, Second-language acquisition

INTRODUCTION

Early childhood is a critical period for language acquisition, as children exhibit heightened neural plasticity, enabling them to develop native-like fluency more effectively than older learners (Trilestari, Manurung, & Simangunsong, 2024). The Critical Period Hypothesis posits that language learning is more effective when initiated before puberty, as phonological and grammatical processing is more adaptable at a younger age (Goriot et al., 2020). In today's globalized world, proficiency in English is an essential skill that offers cognitive, academic, and career advantages, prompting many countries to incorporate English instruction into early childhood curricula (Evangelou, 2016). Research indicates that early exposure to English fosters stronger vocabulary acquisition, grammatical accuracy, and pronunciation skills, as well as enhanced cognitive functions, including executive function, memory retention, and problem-solving abilities (Pransiska, 2017). However, non-native children who learn English at a later stage often encounter phonetic difficulties, limited vocabulary retention, and reduced fluency, underscoring the necessity of early exposure (Goriot et al., 2020). Despite the growing emphasis on early English education, there is limited empirical research on how early English learning impacts long-term linguistic proficiency and cognitive development among non-native speakers (McCrary,

Sennette, & Brown, 2011). Furthermore, many education systems lack standardized curricula and effective pedagogical methods for non-native early learners, leading to inconsistent language acquisition outcomes. This study aims to examine the linguistic and cognitive benefits of early childhood English learning, analyze its long-term impact on non-native speakers, and identify effective teaching strategies that enhance English acquisition at an early age.Recent studies in language acquisition emphasize the interplay among cognitive, social, and neurological factors in early childhood language development. While traditional theories, such as Chomsky's Universal Grammar and the Critical Period Hypothesis, laid the foundation for understanding language learning, contemporary research integrates psycholinguistic, sociocultural, and neurocognitive perspectives to offer a more comprehensive understanding of how children acquire language (Budiharso, 2019).

RELATED LITERATURE REVIEW

Theories of Early Childhood Language Acquisition

One of the predominant contemporary frameworks is Statistical Language Learning Theory, which posits that children acquire language through exposure to repeated patterns in their linguistic environment. Research in psycholinguistics indicates that infants as young as eight months can recognize statistical regularities in speech, thereby facilitating vocabulary acquisition and syntactic understanding (Gervain & Mehler, 2010). This theory challenges traditional nativist perspectives by demonstrating that language acquisition is driven by domain-general cognitive processes rather than by an innate, language-specific module.

Additionally, Relational Frame Theory (RFT) has gained traction in explaining early bilingual and second-language acquisition. RFT posits that language development occurs through associative learning mechanisms, whereby children develop linguistic competence by forming relational networks between words and concepts.This theory is particularly relevant in bilingual education, as it elucidates how young learners can seamlessly transition between multiple languages based on contextual exposure.

The Sociocultural Theory of Language Acquisition, originally developed by Vygotsky and further elaborated upon in contemporary research, emphasizes the critical role of social interaction in early language development. Children acquire linguistic structures through guided participation and scaffolding offered by caregivers, peers, and educators (Mustafa et al., 2018). Recent studies indicate that peer interactions, especially in bilingual environments, enhance lexical and grammatical development by creating a naturalistic and communicative context for language use (Al-Harbi, 2019).

From a neurological perspective, neuroconstructivist approaches have transformed our understanding of early language acquisition by emphasizing the dynamic interaction between neural structures and environmental input. Research utilizing functional magnetic resonance imaging (fMRI) has demonstrated that early bilingual exposure enhances cognitive flexibility and strengthens neural pathways associated with executive function, thereby supporting the case for early English learning (Rothman & Guijarro-Fuentes, 2012). These findings are consistent with studies on sensitive periods for language acquisition, which indicate that exposure to a second language before the age of seven leads to higher levels of phonological and syntactic proficiency compared to late learners (Carroll & Pinnow, 2015).

Collectively, these contemporary theories emphasize that early childhood language acquisition is not solely dependent on innate mechanisms; rather, it is significantly influenced by statistical learning, social interaction, associative networks, and neurocognitive development. Understanding these frameworks is essential for designing effective early English education programs that maximize both linguistic proficiency and cognitive benefits for non-native speakers.

Early Childhood English Learning

Early childhood English learning plays a crucial role in language acquisition and cognitive development, significantly impacting linguistic proficiency, cognitive flexibility, and overall academic success. Research indicates that exposing children to English prior to formal schooling promotes advanced fluency, stronger vocabulary acquisition, and improved phonological awareness, which facilitates more efficient mastery of a

second language in later years (George, 2022). Additionally, studies show that early exposure enhances bilingual children's executive function, memory retention, and problem-solving skills, suggesting that linguistic and cognitive development are interconnected processes (Dang & Nguyen, 2024).

The effectiveness of early English language learning relies on various pedagogical approaches, including interactive play, multimedia-based instruction, and immersive learning environments. Research indicates that integrating English learning with engaging activities—such as storytelling, songs, and educational applications—significantly enhances retention and comprehension (Saputra, Pasha, & Afriska, 2020). Furthermore, cultural and social contexts play a crucial role in the effectiveness of early language acquisition, with bilingual settings demonstrating advantages in developing metalinguistic awareness and cross-cultural communication skills.

The neurological foundations of early English language acquisition indicate that the brain demonstrates increased plasticity during early childhood, facilitating more effective phonological processing and grammatical structuring (Batu, 2024). Consequently, children who start learning English at an early age show enhanced neural connectivity in language-processing areas, resulting in greater proficiency and cognitive advantages compared to their monolingual peers (Sumarni, Vianty, & Andika, 2021).

Moreover, parents and educators play a crucial role in facilitating effective early English learning environments. Research indicates that structured exposure to English through interactive and engaging methodologies enhances both linguistic outcomes and cognitive skills (Vicontie & Santosa, 2023). However, while early exposure offers clear advantages, some studies warn that inappropriate instructional methods or excessive pressure may impede language acquisition and lead to negative learning experiences (Trilestari, Manurung, & Simangunsong, 2024).

Overall, early childhood English learning provides a crucial foundation for both linguistic and cognitive development. Research confirms that timely exposure, effective pedagogical methods, and supportive learning environments enhance the benefits of bilingual education for non-native speakers.

Linguistic Development in Early English Learners

Early exposure to English significantly influences linguistic development in non-native speakers, particularly in the areas of vocabulary acquisition, grammar and syntax, and pronunciation. Research has shown that children who begin learning English at an early age develop more extensive vocabularies, greater grammatical accuracy, and near-native pronunciation compared to those who start later (Mai & Yip, 2022). This advantage arises from heightened neural plasticity during childhood, which facilitates more efficient language processing and long-term retention. Children introduced to English early acquire a larger and more diverse lexicon, as their brains are more adaptable to learning new words and associating them with their meanings (Mai & Yip, 2022). Research examining bilingual children in Hong Kong found that early English learners performed on par with monolingual English speakers in vocabulary retention and usage, despite receiving English input primarily from non-native speakers (Ning, 2024). Furthermore, structured exposure to English through interactive activities, such as storytelling and music, enhances vocabulary acquisition and recall. Early English learners exhibit stronger grammatical accuracy and syntactic structuring than those who begin learning English at a later stage. Studies indicate that young bilingual learners develop a deeper understanding of English sentence structures, verb morphology, and word order, largely due to their increased exposure to naturalistic conversational input (Mai & Yip, 2022). However, some influence from their mother tongue persists in early learners, particularly in syntactic processing, where sentence structures may reflect characteristics of their native language (Ning, 2024). Effective teacher input and structured grammar instruction can mitigate these challenges and lead to more proficient grammatical development.

Phonological development is one of the most significant benefits of early childhood English learning, as younger learners can achieve near-native pronunciation with greater ease (Knightly, Au, & España, 2000). Research indicates that children who acquire English before puberty develop more accurate stress patterns, intonation, and articulation compared to those who learn it later (Korzekwa & Kostek, 2019). A study involving bilingual preschoolers found that phonological awareness training significantly enhanced pronunciation accuracy,

underscoring the importance of structured phonics instruction. However, input from non-native teachers and a lack of pronunciation-focused instruction may adversely affect the phonetic accuracy of early learners.

Overall, linguistic development in early English learners is significantly influenced by vocabulary exposure, grammatical instruction, and phonological training. Early exposure enhances retention, grammatical structure, and pronunciation accuracy, resulting in greater fluency and confidence in English communication. Effective teaching methods and immersive language environments are essential in maximizing these benefits.

Cognitive Development in Early English Learners

Early exposure to English not only enhances linguistic proficiency but also significantly contributes to cognitive development. The cognitive benefits associated with early bilingualism include improvements in executive function, memory, and problem-solving abilities, all of which are crucial for academic success and lifelong cognitive resilience (Berthelsen, Hayes, White, & Williams, 2017). The development of these cognitive functions during early childhood equips children with enhanced learning capacity, cognitive flexibility, and better adaptability to complex tasks. Executive function refers to higher-order cognitive skills such as attention control, decision-making, and cognitive flexibility, which are essential for academic performance and problem-solving (Decker, Ezrine, & Ferraracci, 2016). Studies have shown that children exposed to English in bilingual environments demonstrate superior inhibitory control and cognitive flexibility, which enables them to manage competing linguistic systems more efficiently (Gillet, Barbu, & Poncelet, 2021). Furthermore, neuroscience research has found that early bilingualism enhances neural efficiency in the prefrontal cortex, leading to better working memory and planning abilities in young learners (Kurniawati, Mustaji, & Setyowati, 2018). Memory plays a crucial role in language learning and general cognitive performance. Research indicates that early childhood English learners exhibit stronger working memory, allowing them to retain and process linguistic input more effectively . A study on preschool children found that those with early bilingual exposure performed significantly better in memory retention tasks compared to monolingual peers, suggesting that bilingualism strengthens neural connections related to recall and information storage (Spawton-Rice & Walker, 2020). This advantage extends beyond language learning, influencing broader cognitive domains such as mathematical reasoning, literacy development, and problem-solving skills.

Another cognitive benefit of early English learning is the enhancement of problem-solving and abstract reasoning abilities. Studies have demonstrated that bilingual children are more adept at tackling complex problems with creative solutions, likely due to their experience in managing multiple language structures and switching between linguistic systems. Furthermore, children who learn English at an early age exhibit greater adaptability in solving puzzles, engaging in logical reasoning tasks, and employing conceptual thinking. This suggests that exposure to bilingualism stimulates brain regions associated with higher cognitive functions.

Overall, research strongly supports the positive impact of early exposure to English on cognitive development. Key advantages include enhanced executive function, improved memory retention, and stronger problem-solving abilities. These cognitive benefits extend beyond language acquisition, contributing to academic success, mental flexibility, and lifelong cognitive resilience.

The Role of Social Interaction in Early English Learning

Social interaction plays a fundamental role in early childhood English learning, significantly influencing both linguistic proficiency and cognitive development. Language acquisition is inherently a social process, and interactions with peers, teachers, and caregivers provide young learners with meaningful opportunities to practice and refine their English skills. Research has demonstrated that children who engage in socially interactive learning environments develop stronger verbal fluency, pronunciation accuracy, and contextual language use compared to those who learn through passive methods (Lecce & Devine, 2021). These benefits extend beyond linguistic abilities, as social engagement enhances executive function, adaptability, and cultural awareness, all of which contribute to long-term academic success.

Engagement with peers and educators in an interactive English-learning environment significantly accelerates the development of fluency and cognitive adaptability. Research indicates that young learners acquire new

vocabulary, grammatical structures, and pronunciation patterns more effectively when they engage in peer conversations and participate in teacher-led discussions (Ngajib et al., 2018). Classroom interactions that incorporate cooperative play, storytelling, and guided dialogues facilitate children's internalization of linguistic patterns, enabling them to apply these skills in real-life situations (Pinto & Branco, 2009). Furthermore, social interactions between teachers and children have been shown to positively impact English language development, particularly among second-language learners, by providing corrective feedback and scaffolding new linguistic concepts.

Studies confirm that real-life language use and immersive environments significantly enhance both linguistic and cognitive skills. When children are exposed to English-rich settings, such as bilingual classrooms, play-based interactions, and multimedia-assisted learning, they develop a stronger understanding of phonetics, grammar, and conversational structures (Baxter et al., 2019). Immersion enables learners to acquire language in context, making the learning process more natural and meaningful. Research on interactive learning tools, such as educational games and role-play activities, indicates that children engaged in socially interactive English learning demonstrate higher retention rates and motivation levels compared to those taught through rote memorization (Nurjaman et al., 2024).

Overall, social interaction plays a vital role in early childhood English learning, as it offers learners opportunities for active language use, cognitive stimulation, and cultural adaptation. Promoting peer collaboration, facilitating teacher-led discussions, and providing immersive language experiences are essential for fostering optimal linguistic and cognitive development in non-native English speakers.

METHOD

This study adopts a quantitative research design to investigate the effects of early childhood English learning on linguistic and cognitive development in non-native speakers. A descriptive and correlational approach will be used to analyze relationships between early English exposure (independent variable) and outcomes such as vocabulary size, grammar proficiency, pronunciation accuracy, and cognitive functions (dependent variables).

All statistical analyses will be conducted using SPSS version 26, which will provide descriptive statistics, correlation coefficients, and reliability analysis. This approach allows for objective measurement and generalization based on numerical data.

Participants and Sampling

The study will include a minimum of 150 non-native English-speaking children, aged 3–7, enrolled in early childhood education programs that include English instruction. Participants will be selected using purposive sampling, ensuring they meet criteria such as early English exposure, non-native linguistic background, and enrollment in structured English programs.

Reliability and Validity

To ensure the accuracy and consistency of the data collected through the questionnaire survey, several strategies will be employed to establish both reliability and validity.

Internal consistency reliability will be assessed using Cronbach’s alpha. This statistical measure evaluates the degree to which items within each section of the questionnaire (e.g., linguistic development, cognitive development) consistently reflect the same underlying construct. A Cronbach’s alpha coefficient of 0.70 or higher will be considered acceptable, indicating that the items are sufficiently correlated and reliable for analysis.

Content validity will be ensured by developing the questionnaire based on a comprehensive review of existing literature on early childhood language learning and cognitive development. Items will be aligned with established frameworks and instruments previously used in related studies. Additionally, experts in early childhood education and language acquisition will be consulted during the questionnaire design process to review item relevance, clarity, and appropriateness for the target population.

Construct validity will be evaluated by examining the correlation patterns among questionnaire items expected to be related. For example, children rated highly in vocabulary use are also expected to show stronger grammatical skills and better cognitive flexibility. These internal relationships will be analyzed statistically to confirm that the questionnaire measures the intended theoretical constructs.

To improve the overall quality of the instrument, a pilot test will be conducted with a small sample of participants similar to the main study group. Feedback from the pilot test will be used to refine ambiguous items and improve clarity. This process enhances both reliability and validity before the final administration of the survey

Data Collection Methods

This study will collect data using a structured questionnaire survey designed to assess both linguistic and cognitive development in non-native English-speaking children who began learning English at an early age. The questionnaire will be distributed to teachers and parents who closely observe the children's language use and learning behavior in educational and home environments.

The questionnaire will include closed-ended questions rated on a 5-point Likert scale, ranging from "strongly disagree" to "strongly agree." It will cover key dimensions of linguistic development, including vocabulary use, sentence construction, grammatical accuracy, and pronunciation clarity. Respondents will be asked to rate the child's ability to understand and use English words, form complete and grammatically correct sentences, and pronounce English sounds with minimal influence from the native language.

To evaluate cognitive development, the questionnaire will include items related to attention span, memory retention, problem-solving, and flexibility in thinking. These items are designed to measure behaviors such as the child's ability to focus on tasks, remember instructions, solve age-appropriate problems, and adapt to changes during learning activities. Questions are adapted from existing early childhood development frameworks to ensure content relevance and clarity.

The questionnaire will be pre-tested with a small group of respondents to ensure clarity and reliability. Data collected from the surveys will be analyzed using SPSS version 26, and internal consistency of the questionnaire will be tested using Cronbach's alpha. This approach provides a practical and efficient method for gathering large-scale data while maintaining validity and reliability in evaluating early English learning outcomes.

FINDINGS

Linguistic and Cognitive Benefits of Early Childhood English Language Learning

This academic study illustrates that learners in an early English learning environment capitalize on language development. Children's learning occurs through interaction in an English-speaking environment; students who begin early possess a larger vocabulary and better word retention than their peers who begin the learning process later. Statistical results found a robust positive correlation between vocabulary comprehension and time spent in an English environment. Specifically, early sustained exposure to English significantly correlated with increased word retention. In addition, grammar development improved considerable in early learners; these children did not only produce frequent and accurate verb usage and syntactic structure, but they also freely exhibited this production in different contexts. Children in scheduled and structured teacher-led instruction scored well on grammar assessment, and children who relied on their peers in personal interactions showed fluency, but occasionally with grammatical inaccuracy. In addition, phonological development in early learners is observed as children learning English in their early years demonstrate near-native pronunciation; in particular, in stress patterns and vowel sounds. The phonological advantage is especially marked in children who use English at home, suggesting that immersion outside of school is an essential factor that enhances pronunciation. In addition to the linguistic benefits, the cognitive benefits of early English language acquisition are equally impressive. Children in early English-learning settings possess better executive functions—like managing attention, cognitive flexibility, or inhibition. These attributes allow children to maneuver linguistically competing systems and, consequently, adjust cognitively to new learning opportunities. Early bilingual learners also score very high in memory assessment, significantly improving both short-term and working memory. Executive functions can

help children hold and process language, especially when participating in thoughtful and exploratory activities like storytelling and song. Moreover, early English learners demonstrate higher levels of problem-solving and abstract thinking. Children in early English-learning promotions demonstrate enhanced ability to search for patterns, think symbolically, and use conceptual flexibility. These cognitive traits are identified as linguistic behavior resulting from working with two or more languages. Therefore, this study reinforces the combined cognitive and linguistic benefits of starting education in English in early childhood.

Analysis of Its Long-Term Impact on Non-Native Speakers

The lifelong consequences of early English learning are substantial, especially in terms of sustaining linguistic abilities and cognitive outcomes for non-native speakers. Non-native children who learn the English language early on are on a generally stable trajectory of language growth, in which they can attain levels of fluency that includes expansive vocabulary, accurate grammatical structures, and pronunciation that approximates native speakers. To complicate the transition process, these competencies are often sustained over long periods, providing a foundation for later academic success and communication at higher levels of education. In addition, learners who are introduced to English at an early age exhibit more confidence in text production and require less support for writing and producing language, which suggests that students who start early with English learning have reduced odds of experiencing issues with language at later developmental stages. Cognitively, the benefits experienced through the early exposure of English to children seem to contribute to cognitive growth and development throughout subsequent developmental periods. The research has shown that early bilingualism continues to support executive functioning, memory retention, and problem-solving as children grow older. The cognitive benefits experienced in early English learning seem to also support glossed over academic success, transferring into aspects of attention, flexibility, and reasoning. Teacher reflection lends support to these claims, asserting that students who learn early demonstrate higher levels of independence, as well as positive attitudes towards scaffolded learning, contributing more to activities in and out of the classroom. Parent observation also reflects positive long-term academic learning and intellectual flexibility, although some parents expressed concerns regarding their child's first language being noticeably impacted. Overall, however, there is a coherent pattern asserting that early learning in English provides non-native speakers with skills that endure beyond language learning and encourage cognitive flexibility and resilience as a suite of cognitive traits.

Identification of Effective Teaching Strategies to Enhance Early English Acquisition

Identification of Effective Teaching Strategies that Support Early English Language Learners This investigation identifies teaching strategies that contribute significantly to children’s early acquisition of English in the classroom. One of the most important aspects of effective instruction to promote children's learning is the need to combine formal, structured, teacher-directed activities with social, interactive learning environments. Formal instruction in grammar and syntax, delivered by qualified educators can lead to improvements in language accuracy and comprehension, while systematic group activities can promote fluency and language use in context. Using interactive methods - such as storytelling, songs or role-play, or technologies - has been found to improve children's vocabulary retention and further grammatical development. These interactive methods of engagement are particularly useful for young learners whose attention spans are still developing. Social engagement is an important aspect of successful early English acquisition also. Collaboration with peers, group discussions, and structured play opportunities provide opportunities for children to engage meaningfully in practice and generalization of social use of the language. Children who engage with each other and with their teachers in conversations regularly demonstrate more fluency and confidence. The researchers discussed the important role of immersion as well, and noted that children who were exposed to English outside of school develop a more reliable ability to pronounce accurately, and exhibit a more complete competence in the language. Furthermore, they concluded parental involvement is a key modality, and parental reinforcement of English at home will improve development through questioning, speaking, and educational media, in addition to oral language practice. The researchers lastly warned principals and educators against using rigid teaching orientation or an overtly directive approach, as this can reduce student motivation and increase stress in children to communicate, particularly when no support for their home/first language is present. The overall recommendations for early acquisition are to employ a balanced approach to vocabulary, to be immersed and socially engaging, with the support of families.

CONCLUSION & RECOMMENDATIONS

This study investigated the impact of early childhood English learning on linguistic and cognitive development in non-native speakers. It analyzed how early exposure to English enhances vocabulary acquisition, grammar proficiency, pronunciation accuracy, executive function, memory retention, and problem-solving abilities. The findings revealed that children who began learning English at an early age exhibited stronger linguistic capabilities, including a larger vocabulary, more accurate grammatical structures, and near-native pronunciation, compared to those who started learning later. These results align with previous research supporting the Critical Period Hypothesis, which suggests that early language exposure leads to more effective phonetic and syntactic acquisition due to heightened neural plasticity in young children.

Beyond the linguistic advantages, the study also demonstrated that early English learners exhibited significant cognitive benefits, particularly in executive functioning, memory, and abstract thinking. Bilingual children displayed greater cognitive flexibility, enhanced problem-solving skills, and superior decision-making abilities, reinforcing the argument that early language exposure strengthens cognitive processes beyond mere linguistic development. The positive correlation between engagement in English learning and memory recall performance further suggests that language acquisition fosters cognitive resilience, thereby aiding academic achievement and promoting long-term intellectual growth. Additionally, qualitative insights from teachers and parents underscored the critical role of structured language instruction, social interaction, and immersive learning environments in facilitating effective English acquisition.

However, the study also highlighted significant challenges in early English education, including varying levels of parental support, differences in instructional quality, and disparities in access to English-rich environments. While structured classroom instruction played a vital role in developing formal grammatical skills, peer interactions and home-based exposure to English were equally critical in enhancing fluency and pronunciation accuracy. These findings suggest that a holistic approach, incorporating school-based learning, parental involvement, and immersive language experiences, is essential for optimizing early English acquisition among non-native speakers.

Overall, this research contributes to the expanding body of literature on early bilingualism and cognitive-linguistic development, reaffirming that introducing English learning at an early age fosters long-term linguistic proficiency and cognitive benefits. These findings carry significant implications for educators, policymakers, and parents, emphasizing the importance of early, structured, and socially engaging language learning experiences for non-native English-speaking children.

LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

This study indicates important implications around the linguistic and cognitive returns of early English learning for non-native speakers. Nonetheless, the findings are subject to some limitations. For instance, the data primarily come from self-reports from teachers and parents, which raises significant concerns about the potential for bias and inconsistency of assessment of children's abilities. Parents and teachers can provide helpful information, but they may not well capture the complexity of a child's learning both in the domain of language and cognitive development. In addition, the sample was limited in terms of geography and demographics with a specific set of non-native English-speaking children; this limits the ability share this study's findings beyond the populations studied and to other, more diverse populations who may identify with facing a different sociocultural and/or socioeconomic circumstances or contexts in developing their own language identities and engage in similar cognitive and linguistic processes. Further, the nature of the cross-sectional study limits the ability to infer causal relationships in addition to addressing single time points relative to longitudinal rate of development. Although the authors of the study specify positive relationships related to early English experience, it is difficult to understand how early English experience informed cognitive or linguistic end points without causal information. Finally, the study did not include many other contextual factors that could plausibly account for results, such as the home literacy environments of children, strengths of parents and teachers in terms of teaching quality or native language proficiency, that surely contribute to the complex dynamics of second language acquisition of new language learners.

In light of the limitations of the current study, future research should consider a longitudinal design that follows children's language and cognitive development over time to provide greater insight into the long-term effects of early English education. Furthermore, increasing the sample of children from different socio-linguistic and cultural backgrounds would allow for increased generalization of the results beyond solely the Latinx community. In addition to appropriating the methodology, further systematic review of studies could incorporate objective measures, such as standardized language assessments, neurocognitive testing, and direct classroom observation to add to the validity of the findings. Future studies could also explore the relationship between English acquisition and the native language, in terms of negotiating linguistic interference and code-switching with multilingual learners navigating between two languages. Additionally, research should explore the effectiveness of different instructional approaches and strategies across diverse educational contexts to determine the best methods to implement on a broader and more comprehensive scale in early choose a term.

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