

PSYCHO-PHYSIOLOGICAL FEATURES OF FOREIGN LANGUAGE LEARNERS AND THE PROCESS OF TEACHING FOREIGN LANGUAGE TO DIFFERENT AGE LEARNERS

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Abstract: *This article explores the impact of psycho-physiological factors on foreign language acquisition across different age groups. It examines biological transitions and cognitive shifts from childhood to adulthood, focusing on the Critical Period Hypothesis. By comparing primary schoolers, adolescents, and adults, the study identifies specific pedagogical benefits and challenges. The research suggests that while children possess superior imitative abilities, older learners benefit from advanced cognitive structures. The findings provide a framework for tailoring instructional strategies to specific developmental stages.*

Keywords: *Age factors, language acquisition, neuroplasticity, cognitive development.*

Аннотация. *В данной статье исследуется влияние психофизиологических факторов на овладение иностранным языком в разных возрастных группах. Рассматриваются биологические переходы и когнитивные изменения от детства к зрелости с акцентом на гипотезу критического периода. Путем сравнения младших школьников, подростков и взрослых выявляются конкретные педагогические преимущества и трудности. Исследование показывает, что, хотя дети обладают лучшими имитационными способностями, взрослые используют развитые когнитивные структуры.*

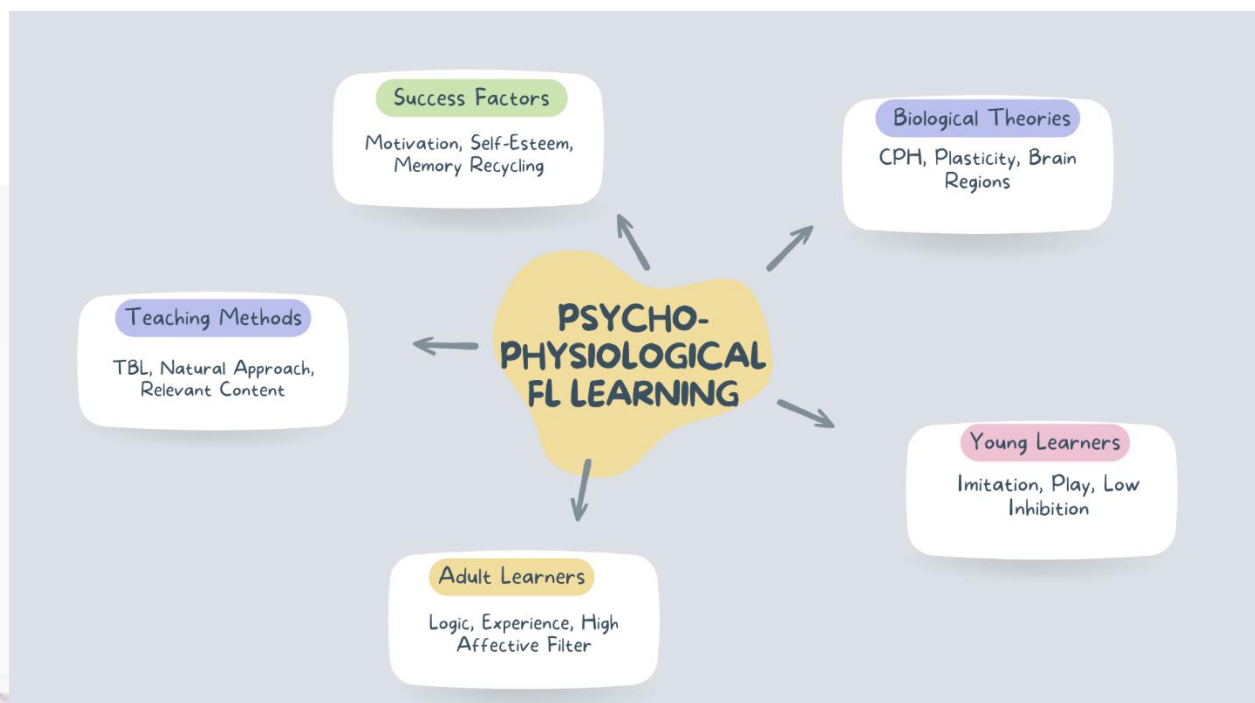
Ключевые слова: *Возрастные факторы, овладение языком, нейропластичность, когнитивное развитие.*

Annotatsiya. *Ushbu maqolada turli yosh guruhlarida chet tilini o'rganishga psixofiziologik omillarning ta'siri tadqiq etiladi. Bolalikdan kattalikkacha bo'lgan biologik o'tishlar va kognitiv o'zgarishlar "Kritik davr gipotezasi" asosida o'rganiladi. Boshlang'ich sinf o'quvchilari, o'smirlar va kattalarni o'zaro solishtirish orqali o'qitishdagi afzalliklar va qiyinchiliklar aniqlanadi. Tadqiqot shuni ko'rsatadiki, bolalar taqlid qilish qobiliyatiga ega bo'lsa, kattalar rivojlangan kognitiv tizimlardan foydalanadilar.*

Tayanch so'zlar: *Yosh omillari, til o'rganish, neyroplastisiti, kognitiv rivojlanish.*

Introduction

The intersection of age and linguistic acquisition remains a cornerstone of modern educational psychology, dictating how instructors design curricula for diverse classrooms. Age serves as a fundamental determinant in the methodology and efficacy of foreign language (L2) instruction, as the pedagogical approach is largely dictated by the learner's specific needs and evolving cognitive skills [McKinnon and Acomat 2010b]. Historically, the "Critical Period Hypothesis" suggested a biological window—ending at puberty—during which language acquisition is most natural due to high neural plasticity [Lenneberg 1967]. Learning a language is inherently a "courageous process" involving significant challenges to a student's self-esteem and social identity [Oxford 2013]. While children often acquire language through play and exhibit superior phonological facilities, older learners utilize abstract thought to master complex structures. Modern research challenges the myth of child superiority, suggesting that the "facility" of children is often limited to imitation, whereas cognitive maturity allows older learners to process linguistic data through established analytical frameworks [Li 2014]. Furthermore, the introduction of the "Affective Filter" highlights how emotional barriers like anxiety increase with age, impacting fluency [Krashen 1985]. Consequently, a deep understanding of these psycho-physiological shifts is essential for developing age-appropriate instructional strategies that maximize the unique strengths of each learner bracket while mitigating developmental limitations.



Methods

This study employs a comprehensive qualitative comparative analysis of existing empirical research and developmental theories regarding L2 acquisition across the lifespan. The methodology integrates biological perspectives, such as brain plasticity and hemispheric lateralization, to establish the physiological baseline for learning [Penfield & Roberts 1959]. This is synthesized with cognitive frameworks like Piaget's developmental stages to categorize learning capabilities [Piaget 1959]. Data was gathered by comparing primary schoolers (ages 7–10) and older learners (ages 16+) across several linguistic domains, specifically focusing on vocabulary retention, morphological complexity, and phonology. Furthermore, the study evaluates the "Affective Filter" hypothesis to measure the impact of anxiety and self-confidence on different age groups [Krashen 1985]. The research also incorporates recent findings regarding the neural processing differences between early and late bilinguals, observing how the brain's organization shifts post-puberty [Long 1990]. By reviewing peer-reviewed literature and case studies, the study builds a theoretical model that maps specific teaching interventions, such as Task-Based Learning (TBL) and the Natural Approach, to the corresponding psycho-physiological traits of each age group [Turgunov 2023]. This structured review allows for a rigorous assessment of how physiological maturity influences pedagogical outcomes and provides a validated path for future curriculum design.

Results

The research identifies distinct psycho-physiological advantages and constraints that define the language learning experience for various age brackets. Primary schoolers (7–10) demonstrate high levels of active participation and superior imitation skills, allowing them to memorize new vocabulary rapidly through auditory input [Munoz 2019]. They are characterized as "trouble-free" learners, possessing lower inhibitions and a willingness to engage in play-based learning without fear of social judgment. Conversely, older learners (16+) possess a significantly larger potential vocabulary size and the ability to compare new information with prior linguistic knowledge to improve speech connectivity [Turgunov 2023]. While younger learners excel in phonology, older students often progress faster in the initial stages of syntax and morphology due to their ability for abstract reasoning [Li 2014]. However, adolescents and adults face higher "affective filters" due to increased social pressure and self-consciousness [Noels et al. 2000]. Biological data confirms that late learners process L1 and L2 in distinct brain regions, whereas early learners utilize overlapping areas, which directly impacts the "naturalness" and speed of acquisition [Long 1990]. These results indicate that while the biological window for native-like accent may close early, the intellectual tools of adulthood provide a robust secondary pathway for achieving professional-level proficiency.

Discussion

The findings suggest that the perceived "superiority" of young learners is domain-specific rather than absolute. While children are neurologically primed for native-like pronunciation and subconscious acquisition, the "compensatory mechanisms" of older learners—such as advanced cognitive maturity and analytical skills—allow for more efficient mastery of complex grammatical systems [Singleton 2001]. Educators must leverage these differences; for instance, adult instruction should include recycling activities for short-term memory retention and group work for peer support [McKinnon and Acomat 2010b]. Furthermore, the use of "lighter" or relevant texts, like games or spontaneous activities, can lower the affective filter in adults, proving that learning need not always be serious to be effective [Puchta 2013; Ross 2009]. The success of an L2 program depends on the teacher's ability to use the students' life experiences and cognitive strengths to make lessons relevant [Turgunov 2023]. It is also discussed that the "courageous process" of language learning requires a supportive environment that acknowledges the high anxiety levels of older students [Oxford 2013]. Ultimately, age should not be viewed as a barrier to fluency but as a variable that dictates the transition from subconscious acquisition to conscious, logic-driven learning, requiring a shift from play-centered to goal-oriented pedagogical approaches.

Conclusion

In conclusion, the process of teaching foreign languages must be harmonized with the specific psycho-physiological stage of the learner to achieve optimal educational outcomes. Children require immersion-rich and play-based environments to maximize their natural imitative strengths and neuroplasticity, while older learners necessitate structured, analytical, and contextually relevant content to suit their advanced cognitive maturity. The "Critical Period" should not be viewed as a definitive deadline for fluency, but rather as a shift in how the human brain organizes linguistic input and manages memory [Marinova-Todd et al. 2000]. By applying modern pedagogical techniques such as Task-Based Learning (TBL), the Natural Approach, and systematic vocabulary recycling, teachers can address the specific neurological and emotional needs of various age groups effectively [Turgunov 2023]. Successful instruction ultimately hinges on lowering the affective filter through social support and peer interaction while celebrating the learner's prior knowledge. Future language education must move beyond a "one-size-fits-all" model, recognizing that while the biological pathway to a native-like accent may diminish over time, the cognitive capacity for linguistic mastery remains robust throughout adulthood if met with the correct instructional methodology.

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