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NEUROLINGUISTIC ASPECTS OF LEARNING A FOREIGN LANGUAGE (ENGLISH)

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Анотація

У статті розглядаються нейролінгвістичні аспекти вивчення англійської мови як іноземної. Особливу увагу приділено ролі головного мозку у мовній обробці, зокрема зонам Брока і Верніке, а також нейропластичності, що сприяє засвоєнню мови. Також аналізується вплив пам’яті, емоційного стану та когнітивних переваг двомовності. Окреслено ефективні методи навчання, що базуються на нейролінгвістичних дослідженнях, для покращення процесу оволодіння мовою.

Ключові слова: нейролінгвістика, вивчення мови, нейропластичність, пам’ять, емоції, двомовність, когнітивні навички.

Abstract

This article explores the neurolinguistic aspects of learning English as a foreign language. Special attention is given to the brain’s role in language processing, particularly Broca’s and Wernicke’s areas, as well as neuroplasticity, which facilitates language acquisition. The impact of memory, emotional state, and cognitive benefits of bilingualism are also analysed. Effective teaching methods based on neurolinguistic research are outlined to enhance the language learning process.

Keywords: neurolinguistics, language learning, neuroplasticity, memory, emotions, bilingualism, cognitive skills.

Introduction

The process of learning a foreign language, especially English, involves complex cognitive and neurological mechanisms. Neurolinguistics, a field that studies the relationship between language and the brain, provides valuable insights into how individuals acquire and process a second language. Understanding these neurolinguistic aspects can enhance teaching methodologies and improve language acquisition efficiency. Additionally, recent research suggests that targeted neurolinguistic strategies, such as leveraging language-specific neural pathways, can further optimize learners’ progress.

Research results

The brain and language processing

Language learning is primarily associated with two key areas in the brain: Broca’s area and Wernicke’s area. Broca’s area, located in the frontal lobe, is responsible for speech production and grammatical structuring, while Wernicke’s area, found in the temporal lobe, facilitates language comprehension. When learning a foreign language, these regions work together, along with the hippocampus and other neural networks, to encode, store, and retrieve linguistic information.

Neuroplasticity and language acquisition

Neuroplasticity, the brain’s ability to reorganize itself by forming new neural connections, plays a crucial role in learning English as a second language. The earlier an individual starts learning, the more adaptable their brain is to acquiring new linguistic structures. However, even adult learners can benefit from neuroplasticity through consistent practice and exposure to the target language.

The role of memory in language learning

Memory, particularly working memory and long-term memory, is essential for mastering a foreign language. Working memory helps process and retain new vocabulary and grammatical rules, while long-term memory stores linguistic knowledge for future retrieval. Effective learning strategies, such as spaced repetition and mnemonic devices, can enhance memory retention and language proficiency.

The impact of emotions on language learning

Emotions significantly influence language acquisition. Positive emotions, such as motivation and confidence, can facilitate neural activation and improve learning efficiency. Conversely, anxiety and stress can hinder cognitive processing, making language comprehension and production more challenging. Creating a supportive and engaging learning environment can enhance emotional well-being and boost language learning outcomes.

Bilingualism and cognitive benefits

Learning English as a second language not only improves communication skills but also enhances cognitive abilities. Bilingual individuals often exhibit better problem-solving skills, increased attention control, and greater mental flexibility. These cognitive benefits result from the brain's ability to switch between languages and manage multiple linguistic systems efficiently.

Conclusion

Neurolinguistic research highlights the intricate relationship between the brain and language learning. By leveraging insights from neurolinguistics, educators and learners can optimize language acquisition strategies and overcome learning challenges. Understanding how the brain processes and retains linguistic information can lead to more effective and enjoyable language learning experiences.

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