

Cognitive Aspects of Foreign Language Learning

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Annotatsiya:

chet tilini o'zlashtirish jarayoni o'quvchilarning yangi tilni tushunishi, ishlab chiqarishi va undan foydalanishiga ta'sir qiluvchi murakkab kognitiv mexanizmlarni o'z ichiga oladi. Til o'rganish strategiyalari va kognitiv rivojlanish o'rtasidagi o'zaro bog'liqlik muhokama qilinadi va metakognitiv xabardorlik o'quvchilarning o'z ta'limini o'z-o'zini boshqarish qobiliyatini qanday oshirishi mumkinligiga urg'u beriladi.

Key words: kognitiv jarayonlar, diqqat, operativ xotira, kognitiv yuk, so'z boyligini saqlash, individual farqlar, til o'rganish strategiyalari, motivatsiya, o'z-o'zini tartibga solish, kiritish jarayonlari, o'rganishni uzatish.

It is known from cognitive science that human thinking is a process of processing (with the help of an important "processor" - the human cognitive system) and generating knowledge. Knowledge functions as an "impersonal phenomenon", as a kind of "field of meanings", to which the human consciousness "participates" through anamnesis. This process of cognition is a transition from the state of "ignorance" to the state of "knowledge" and involves the "transformation of a thing in itself into a thing for us", i.e., the destruction of the natural givenness of an object - "tearing" it out of its habitual habitat - abstraction from nonessential characteristics of the object under study" - an anthropomorphic interpretation of the perceived". In epistemology and cognitive science, two main types of knowledge are distinguished: declarative and procedural. Declarative knowledge is understood as knowledge ("what-knowledge") acquired by an individual as a result of his social experience (empirical knowledge from the professional sphere came from everyday social and personal life: for example, food, and transport) and in the learning process (academic knowledge from the field of scientific and technical education). This category of knowledge is not necessarily directly related to language and culture, but it is important for the implementation of verbal communication. Procedural knowledge ("howknowledge") is a certain sequence of actions that should be performed. In other words, procedural knowledge is some general instruction about actions in some situations (for example, instructions for using a household appliance). If the first

group of knowledge can be verified as true and false, then the second can be evaluated only based on the success or failure of the algorithm of actions. Regardless of what type of knowledge we are talking about, they can be divided into three groups: 1) individual knowledge, which is the property of an active subject, his speech-thinking and other activities; 2) the total collective knowledge experience, which is formed and functions in a certain linguocultural community according to the laws of mental activity and interactions in super-large systems; 3) collective knowledge is “registered” in the products of various human activities, which reflects only a part of what is included in the first concept of knowledge. It follows that human linguistic knowledge does not exist by itself. They, being formed through personal experience-refraction and being under the control of the norms and assessments that have developed in society, function in the context of his diverse experience. Therefore, for a native speaker to recognize a word means to include it in the context of previous experience, i.e. “in the internal context of various knowledge and relationships that have been established in the corresponding culture as the basis for mutual understanding in the course of communication and interaction”. It follows that the language competence of a person interacts with other types of knowledge and skills. This fact should be taken into account when teaching foreign languages, during which it is justified and inevitable to go beyond the limits of proper communicative knowledge and skills. The appeal to frames as to the supralinguistic level, to the extra-linguistic situation, always occurs when comprehending sign expressions. It is no coincidence that C. Fillmore associates linguistically determined characteristics of the knowledge structure with frames: “We can use the term frame when we mean the specific lexical and grammatical support that a given language has for naming and describing categories and relationships found in schemas”. Therefore, speaking about the cognitive aspect of the goal of teaching foreign languages, one should keep in mind the need and importance of forming basic cognitive structures in the minds of students that provide them with the perception and understanding of the language and the world of a different socio-cultural community. “The essence of teaching intercultural communication is to build secondary structures in the cognitive system of the recipient (learner) — knowledge that would correlate with knowledge about the world of the speaker (representative of a different sociocultural community)”. Cognitive factors affecting first language acquisition There are many terms for first language, such as native language, mother tongue, but these terms are compatible with one another in a common feature that first language is the language or languages”... which are acquired during early childhood – normally beginning before the age of about three years – and that they are learned as part of growing up among people who speak them.” Cognitive factors influencing second / foreign language learning. Second or foreign language, however, refers to the language or languages that an individual learns at some point after the completion of the first language acquisition. If the ability has ability or high level of proficiency in a second or foreign language, besides his first language, he / she is called ‘bilingual’. Second language learners are different. They learn with different speed and different results. The general factors that influence second language learning include: intelligence and aptitude, cognitive learning styles. Intelligence and aptitude. The studies on intelligence – (Intelligence quotient) IQ tests scores – show a strong relationship between intelligence and acquisition of a foreign language as far as academic skills are concerned. Learners with high IQ achieve better results on language tests. It is proved that intelligence can predict the rate and success of second language acquisition in the formal language classroom. “The ability to perform well in standard intelligence tests correlates highly with school related second language learning”. Cognitive learning styles. Cognitive learning styles was described as “the characteristic cognitive, attentive, and psychological behaviors that serve relatively stable indicators of how learners perceive, interact with, and respond to the learning environment” (Keefe 1979, cited by Ellis 1994: 499). Students learning styles can be influenced by many factors among which are their genetic background, their culture and previous learning experience. It is said that if teachers match their teaching methods to the students learning styles, the students will be more successful and more interested in the language. Understanding how

cognitive processes influence language acquisition can help educators develop effective teaching strategies and learners optimize their study methods.

Language acquisition theories, such as Krashen's Input Hypothesis and Swain's Output Hypothesis, emphasize the role of cognitive processes in learning a new language. Krashen argues that comprehensible input is crucial for language acquisition, while Swain highlights the importance of producing language (output) for cognitive processing and internalization. Working memory plays a significant role in language learning. It refers to the capacity to hold and manipulate information temporarily. Learners with higher working memory capacity can better manage the complexities of grammar, vocabulary, and sentence structure. Research indicates that working memory is positively correlated with language proficiency, suggesting that strategies to enhance working memory may improve language learning outcomes. Attention is a critical cognitive resource in language learning. Learners must focus on relevant linguistic input while filtering out distractions. Cognitive load theory posits that learners have a limited capacity for processing information; thus, instructional methods should aim to reduce extraneous cognitive load. Techniques such as scaffolding and chunking information can help learners manage cognitive demands more effectively. Vocabulary acquisition is a fundamental aspect of language learning. Cognitive processes involved in vocabulary retention include semantic processing, repetition, and contextualization. Strategies such as spaced repetition and mnemonic devices can enhance vocabulary retention by leveraging cognitive mechanisms that facilitate memory consolidation. Motivation significantly impacts cognitive engagement in language learning. Intrinsic motivation, driven by personal interest and enjoyment, often leads to deeper cognitive processing and better retention of language skills. Moreover, individual differences in learning styles and preferences can influence how learners engage with cognitive tasks, underscoring the need for personalized approaches in language instruction. Metacognition refers to the awareness and regulation of one's own cognitive processes. Metacognitive strategies, such as self-monitoring and self-assessment, enable learners to evaluate their understanding and adjust their learning strategies accordingly. Teaching metacognitive skills can empower learners to take control of their language learning journey, leading to improved outcomes. Neuroplasticity—the brain's ability to reorganize itself by forming new neural connections—plays a crucial role in language learning. Engaging in language practice stimulates brain areas associated with language processing, enhancing cognitive flexibility and adaptability. This underscores the importance of consistent practice and exposure to the target language. Understanding the cognitive aspects of foreign language learning provides valuable insights for both educators and learners. By focusing on cognitive processes such as working memory, attention, motivation, and metacognition, we can create more effective language learning environments and strategies. As research continues to evolve in this field, it will be essential to integrate cognitive principles into language instruction to foster successful language acquisition.

References

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