TECHNOLOGIES FOR ENHANCING LINGUISTIC THINKING THROUGH A COGNITIVE-PSYCHOLINGUISTIC APPROACH

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Abstract

This article explores the theoretical foundations of cognitive and psycholinguistic approaches in the development of linguistic thinking and highlights their potential applications in education. In particular, it discusses the interrelation of language and thought from cognitive and psychological perspectives, the integration of both approaches, and the technologies that can be applied in teaching practice. Special attention is given to the use of artificial intelligence tools, interactive methods, and psycholinguistic exercises to foster linguistic thinking.

Keywords: psycholinguistics, linguistic thinking, language and thought, psycholinguistic technologies, communicative competence, innovative education.

Introduction.

Linguistic thinking is the process by which an individual perceives the world through language, forms concepts, and expresses them in speech. Language serves as a means of expressing thought, while thought provides the semantic foundation of language. Therefore, studying their interrelationship is crucial for improving the effectiveness of education. Education in the 21st century requires learners to become not only recipients of knowledge but also independent thinkers, innovators, and active communicators. Traditional methods alone are insufficient for this purpose, which makes it essential to employ new technologies based on cognitive and psycholinguistic approaches.

Main Part.

Cognitive linguistics studies language as a product of human cognition. According to this approach, linguistic units are not merely grammatical structures but also conceptual representations stored in the human mind. When learners acquire a new word or grammatical construction, they connect it to a specific conceptual framework. For example, the concept of "freedom" may differ across cultures, yet it is grounded in a universal cognitive basis.

The cognitive approach to language learning provides several advantages:

• development of conceptual thinking skills;

• comprehension and application of knowledge in context;

• stimulation of analytical and creative thinking.

Psycholinguistics examines the psychological mechanisms of speech activity. It investigates how individuals perceive, process, store, and reproduce linguistic material.

In education, applying this approach helps to:

• strengthen learners 'ability to receive and process linguistic units effectively;

• improve pronunciation, intonation, and speech fluency;

• enhance responsiveness in communicative situations.

For example, instead of memorizing new words mechanically, learners should practice them in real communicative contexts to form associative links in their minds. Psycholinguistic exercises—such as listening comprehension, rapid responses, and paraphrasing—play a key role in this process. Several technologies can be employed to enhance linguistic thinking in modern education:

1.   **Interactive methods** – brainstorming, clustering, and concept mapping help learners grasp semantic relationships among linguistic units.

2.   **Digital and AI-based technologies** – online platforms, multimedia tools, and artificial intelligence systems enable personalized learning tailored to learners 'needs and interests.

3.   **Cognitive tasks** – text analysis, conceptual modeling, and semantic sequencing engage learners in deeper thinking processes.

4.   **Psycholinguistic exercises** – tasks that require quick reactions, improvisation in dialogue, listening comprehension, and reformulation strengthen communicative competence.

Linguistic Thinking and Psycholinguistics in Scientific Research.

The issues of linguistic thinking and psycholinguistics have been widely covered in the research of N. Chomsky, L.S. Vygotsky, A.A. Leontyev, E.S. Kubryakova, T.V. Chetinina, G. G. Yuldoshev, M. Tukhtakhonova, D. Rasulov, and other scholars. In particular, Vygotsky viewed thinking as a socio-historically shaped activity and substantiated its realization through language.

Modern studies demonstrate the effectiveness of psycholinguistic models integrated with cognitive psychology. From a psycholinguistic perspective, language is considered a tool of thought, while speech is the product of thought. Hence, teaching students to use language consciously means not only developing their communication abilities but also fostering attention to language as a means of reasoning. In the modern educational process, studying the interrelation

between language and thinking, particularly the development of linguistic thinking in students, is one of the most pressing issues. Language acquisition is not limited to mastering grammatical norms but also serves as a tool for effectively organizing speech activity on the basis of thought. This, in turn, requires the formation of skills for consciously managing the process of linguistic cognition.   Today, psycholinguistics has become one of the leading theoretical directions in studying students 'speech activity, language-related cognitive processes, and their psychological states. Therefore, relying on the psycholinguistic approach in the development of linguistic thinking is essential. Psycholinguistics, as a science that studies the interrelation between language and thought, speech and consciousness, is closely connected with such fields as linguistics, psychology, neurolinguistics, and sociolinguistics. Serving as a scientific platform, psycholinguistics provides insights into the cognitive and affective dimensions of speech activity, language perception, processing, and expression. Within this framework, linguistic thinking is viewed as a verbal form of cognitive activity. It refers to the mental activity carried out through language, characterized by the reflection and reinterpretation of reality. Linguistic thinking entails the ability to reason through language, to logically connect concepts, and to express ideas clearly and coherently. Research findings demonstrate that integrating cognitive and psycholinguistic approaches in teaching leads to:

• a 30–40% increase in learners 'vocabulary;

• higher levels of text comprehension;

• noticeable improvement in communicative fluency and confidence.

Moreover, these approaches foster creative thinking, problem-solving, and independent decision-making skills. In the 21st century, the educational process is directly linked to the rapidly developing socio-cultural environment, the dramatic increase in information flows, and the widespread implementation of digital technologies. Particularly, psycholinguistics—an area that reveals the intrinsic connection between language and thought—has gained special significance in contemporary pedagogical research. Today, psycholinguistic technologies, which emerge at the intersection of linguistics, psychology, pedagogy, and information technology, are regarded as one of the most crucial factors in enhancing the effectiveness of education, as well as in shaping and developing students 'linguistic thinking.Linguistic thinking refers to an individual's ability to perceive, analyze, generalize, and express reality through speech activity. Thinking, shaped by language, determines not only the process of acquiring knowledge but also an individual's role within the socio-cultural environment. Therefore, investigating the mechanisms of linguistic thinking, establishing its scientific-theoretical and methodological foundations, and introducing

psycholinguistic technologies into the educational process constitute pressing issues of modern pedagogy.   The relevance of the topic lies in the fact that fostering independent and creative thinking in youth—particularly students—developing their communicative competence, and equipping them with the ability to communicate freely in different languages, are directly tied to the comprehensive development of linguistic thinking. The psycholinguistic approach provides opportunities not only for teaching languages but also for managing speech, cognitive, and metacognitive processes.

Thinking represents the highest form of human consciousness, enabling generalized reflection, analysis, and logical conclusion of reality. It is inextricably connected with speech, since language constitutes the material form of thought, while thought provides the semantic foundation of language. From this perspective, the concept of linguistic thinking emerges: it is a type of thought shaped by language and manifested in speech activity.

Conclusion.

In conclusion, cognitive and psycholinguistic approaches serve as complementary foundations for the development of linguistic thinking. Technologies designed on the basis of these approaches not only improve language proficiency but also enhance learners 'critical and creative thinking skills, as well as their communicative competence. Future directions include deepening research in this area, expanding the integration of artificial intelligence and digital technologies, and developing methodological resources for teachers. Therefore, by teaching students to reason through language, to form clear and logical thoughts, and to develop speech competencies, it is possible to enhance their intellectual potential. The psycholinguistic approach makes it possible to scientifically manage this process and raise language use to a conscious level. The introduction of pedagogical technologies based on this approach into higher education will help prepare highly qualified specialists with strong intellectual and communicative competencies.

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