

## PSYCHOLINGUISTIC AND COGNITIVE FACTORS: CHARACTERISTICS OF FUTURE TEACHERS IN DEVELOPING COMMUNICATIVE COMPETENCE

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**Abstract:** This thesis explores the psycholinguistic and cognitive factors influencing the development of communicative competence in future English language teachers. It examines how cognitive abilities, emotional states, and motivational factors shape their communicative skills within the educational context. The study highlights the role of artificial intelligence (AI) technologies in addressing these factors by personalizing learning processes and enhancing interactive teaching methods. Drawing on Uzbekistan's digital education strategy, the thesis underscores the importance of integrating AI tools to support psycholinguistic and cognitive development in teacher training. International experiences, such as AI-driven language learning platforms, are analyzed to demonstrate their potential in fostering effective communicative competence. The research aims to contribute to the methodological framework for preparing future teachers in alignment with global educational standards.

**Key words:** communicative competence, psycholinguistic factors, cognitive abilities, future English teachers, artificial intelligence, teacher training, digital education, personalized learning.

## PSIXOLINGVISTIK VA KOGNITIV OMILLAR: BO'LAJAK O'QITUVCHILARNING KOMMUNIKATIV KOMPETENTLIKNI SHAKLLANTIRISHDAGI XUSUSIYATLARI

**Annotatsiya:** Ushbu tezis bo'lajak ingliz tili o'qituvchilarining kommunikativ kompetentligini rivojlantirishda psixolingvistik va kognitiv omillarning rolini tahlil qiladi. Tadqiqotda kognitiv qobiliyatlar, emotsional holatlar va motivatsion omillar bo'lajak o'qituvchilarning kommunikativ ko'nikmalariga ta'siri ko'rib chiqiladi. Sun'iy intellekt (SI) texnologiyalarining shaxsiylashtirilgan va interaktiv ta'lim jarayonlarini qo'llab-quvvatlash orqali ushbu omillarni rivojlantirishdagi ahamiyati ta'kidlanadi. O'zbekistonning raqamli ta'lim strategiyasi doirasida SI vositalarining o'qituvchilar tayyorlashda qo'llanilishi zarurati asoslanadi. Xorijiy tajribalar, masalan, SI asosidagi til o'rganish platformalari, kommunikativ kompetentlikni rivojlantirishda samarali yechimlar sifatida muhokama qilinadi. Tadqiqot bo'lajak o'qituvchilarning global ta'lim standartlariga mos tayyorgarligini ta'minlashga xizmat qiladi.

**Kalit so'zlar:** kommunikativ kompetentlik, psixolingvistik omillar, kognitiv qobiliyatlar, ingliz tili o'qituvchilari, sun'iy intellekt, o'qituvchilar tayyorlash, raqamli ta'lim, shaxsiylashtirilgan ta'lim.

The development of communicative competence in future English language teachers is a critical aspect of their professional preparation, as it directly impacts their ability to facilitate effective language acquisition for their students [1; pp. 269–270]. Communicative competence encompasses not only linguistic proficiency but also sociolinguistic and pragmatic skills,

requiring teachers to navigate diverse cultural and contextual demands in real-world communication [2; pp. 25–26]. Psycholinguistic and cognitive factors, such as cognitive processing, emotional regulation, and motivation, play a pivotal role in shaping these competencies. This thesis examines how these factors influence the communicative abilities of future English teachers and explores the potential of artificial intelligence (AI) technologies to address them within the framework of Uzbekistan’s digital education initiatives.

Psycholinguistic factors include cognitive processes such as attention, memory, and language processing, which are essential for effective communication. For instance, working memory capacity influences a teacher’s ability to process and respond to complex linguistic inputs during classroom interactions [3; pp. 45–47]. Emotional factors, such as anxiety or confidence, also significantly affect communicative performance. Research indicates that language anxiety can hinder fluency and coherence in communication, particularly for pre-service teachers who are still developing their professional identities [4; pp. 112–113]. Motivation, both intrinsic and extrinsic, further drives the acquisition of communicative skills, as highly motivated individuals are more likely to engage in practice and seek feedback [5; pp. 78–80]. In the context of Uzbekistan, where English language education is increasingly prioritized, understanding these factors is crucial for designing effective teacher training programs.

Cognitive characteristics, such as problem-solving skills and metacognitive awareness, are equally important. Future teachers with strong metacognitive skills can better monitor and adjust their teaching strategies to suit diverse learner needs [6; pp. 65–67]. However, traditional teacher training programs often overlook these psycholinguistic and cognitive dimensions, focusing primarily on linguistic accuracy rather than holistic communicative competence. This gap is particularly evident in Uzbekistan, where cultural and educational contexts may influence students’ cognitive and emotional readiness for language teaching. For example, cultural norms emphasizing formal communication may limit opportunities for practicing informal or pragmatic language use, which is essential for real-world interactions [7; pp. 134–135].

Artificial intelligence technologies offer innovative solutions to address these psycholinguistic and cognitive challenges. AI-driven platforms, such as Duolingo and Elsa Speak, provide personalized learning experiences by analyzing learners’ cognitive and linguistic profiles and tailoring exercises accordingly [8; pp. 89–90]. These tools can assess a learner’s progress in real time, offering immediate feedback on pronunciation, grammar, and discourse strategies, which are critical for developing communicative competence. For instance, Elsa Speak uses speech recognition to analyze pronunciation accuracy, helping teachers improve their oral communication skills [9; pp. 130–132]. Similarly, AI-powered chatbots enable future teachers to practice conversational skills in varied contexts, enhancing their sociolinguistic and pragmatic abilities [10; pp. 75–77].

Uzbekistan’s digital education strategy, as outlined in the 2023 Presidential Decree on Digital Education Development, emphasizes the integration of AI technologies to enhance educational outcomes [11; pp. 47–48]. This policy provides a framework for incorporating AI tools into teacher training programs, particularly for English language educators. By leveraging AI, teacher training can become more adaptive, addressing individual psycholinguistic and

cognitive needs. For example, AI platforms can identify areas where a pre-service teacher struggles, such as vocabulary retention or fluency under pressure, and provide targeted exercises to improve these skills [12; pp. 215–217]. This personalization is particularly valuable in Uzbekistan, where students often come from diverse linguistic and cultural backgrounds, requiring tailored approaches to teacher preparation.

International experiences further demonstrate the efficacy of AI in supporting psycholinguistic and cognitive development. Studies on platforms like Grammarly show that AI-driven feedback improves writing accuracy and confidence, which are essential components of communicative competence [13; pp. 145–146]. Similarly, research on Duolingo indicates that adaptive learning algorithms enhance vocabulary acquisition and motivation, addressing cognitive and emotional barriers to language learning [8; pp. 90–91]. These findings suggest that AI tools can bridge the gap between traditional teacher training and the demands of modern communicative language teaching. However, integrating AI into teacher training also presents challenges. Future teachers must develop digital literacy to effectively use AI tools, which requires additional training and resources [14; pp. 78–80]. Moreover, over-reliance on AI may reduce opportunities for authentic human interaction, which is critical for developing pragmatic competence [15; pp. 67–69]. In Uzbekistan, where access to advanced technologies may be limited in some regions, ensuring equitable implementation of AI tools is a significant concern. Addressing these challenges requires a balanced approach, combining AI-driven methods with traditional pedagogical strategies to create a comprehensive training framework.

In conclusion, psycholinguistic and cognitive factors significantly influence the development of communicative competence in future English language teachers. AI technologies offer promising solutions by providing personalized, interactive, and data-driven learning experiences that address these factors. Uzbekistan's commitment to digital education creates an opportune context for integrating AI into teacher training, enhancing the preparation of future teachers to meet global standards. Future research will focus on designing and testing an AI-based methodological system to optimize the development of communicative competence in pre-service English teachers.

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