The Psycho-Linguistic Analysis of the Process of Developing Speech Competence of the Students of Non-Philological Departments

Nurjamol Normatova[4]
normatova.nurjamol@mail.ru
Associate Professor, PhD,
Samarkand State Institute of Foreign Languages

Suyunbek Nazarov[5]
suyunbek.nazar@gmail.com
Independent Researcher,
Uzbekistan State World Languages University

Annotation *This comprehensive research article examines the psycho-linguistic foundations of speech competence development in university students from non-philological departments. Drawing upon contemporary research in psycholinguistics, cognitive psychology, and language pedagogy, this article synthesizes current understanding of the cognitive mechanisms, psychological processes, and pedagogical approaches that facilitate foreign language communicative competence in non-language majors. The integration of technology into foreign language instruction offers significant potential for enhancing speech competence development in non-philological students. The synthesis of contemporary research demonstrates that effective speech competence development requires instructional approaches that are simultaneously grounded in psycholinguistic theory, responsive to the unique constraints of non-philological contexts, and oriented toward the professional communication needs of students. Research examining the effectiveness of interactive online courses for speech competence development in non-language-major students has identified several key factors contributing to successful outcomes. The analysis reveals that speech competence development in this population is fundamentally shaped by the interplay of cognitive processes including memory, perception, attention, and thinking, alongside speech production mechanisms and language acquisition processes.*

Keywords *Speech competence, cognitive mechanism, memory, language acquisition, non-philological departments*

Filologiya bo‘lmagan fakultetlar talabalarining nutq kompetentsiyasini rivojlantirish jarayonining psixo-lingvistik tahlili

Nurjamol Normatova
normatova.nurjamol@mail.ru
Dotsent, PhD,
Samarqand davlat chet tillari instituti

Suyunbek Nazarov
suyunbek.nazar@gmail.com
Mustaqil izlanuvchi,
O‘zbekiston davlat jahon tillari universiteti

[4] Normatova N. — ORCID: 0000-0002-7148-9451
[5] Nazarov S. — ORCID: 0009-0001-3992-8039

Annotatsiya *Ushbu keng qamrovli tadqiqot maqolasi filologiya bo'lmagan fakultetlar talabalarida nutq kompetentsiyasini rivojlantirishning psixolingvistik asoslarini o'rganadi. Psixolingvistika, kognitiv psixologiya va til pedagogikasi bo'yicha zamonaviy tadqiqotlarga tayangan holda, maqola til bo'yicha mutaxassis bo'lmagan talabalarda chet til kommunikativ kompetentsiyasini rivojlantirishga yordam beruvchi kognitiv mexanizmlar, psixologik jarayonlar va pedagogik yondashuvlar haqidagi hozirgi tushunchalarni sintez qiladi. Texnologiyani chet tillarni o'qitishga integratsiya qilish filologiya bo'lmagan yo'nalishdagi talabalarda nutq kompetentsiyasini rivojlantirishni sezilarli darajada yaxshilash imkonini beradi. Zamonaviy tadqiqotlar sintezi shuni ko'rsatadiki, nutq kompetentsiyasini samarali rivojlantirish uchun psixolingvistika nazariyasiga asoslangan, filologiya bo'lmagan kontekstlarning o'ziga xos cheklovlarini hisobga olgan va talabalarning kasbiy kommunikatsiya ehtiyojlariga yo'naltirilgan o'qitish yondashuvlari zarur. Til bo'yicha mutaxassis bo'lmagan talabalarda nutq kompetentsiyasini rivojlantirishda interaktiv onlayn kurslarning samaradorligini o'rganishga bag'ishlangan tadqiqotlar muvaffaqiyatli natijalarga hissa qo'shadigan bir nechta asosiy omillarni aniqladi. Tahlil shuni ko'rsatadiki, bu guruhda nutq kompetentsiyasining rivojlanishi asosan xotira, idrok, e'tibor va fikrlash kabi kognitiv jarayonlar hamda nutqni ishlab chiqarish mexanizmlari va tilni o'zlashtirish jarayonlarining o'zaro ta'siri natijasida shakllanadi.*

Kalit so'zlar *Nutq kompetentsiyasi, kognitiv mexanizm, xotira, tilni egallash, filologik bo'lmagan fakultetlar*

Психолингвистический анализ процесса формирования речевой компетенции студентов нефилологических факультетов

Nurjamol Normatova
normatova.nurjamol@mail.ru
Кандидат наук, доцент,
Самаркандский государственный институт иностранных языков

Suyunbek Nazarov
suyunbek.nazar@gmail.com
Самостоятельный исследователь,
Узбекский государственный университет мировых языков

Аннотация *В данной обзорной научной статье рассматриваются психолингвистические основы развития речевой компетенции у студентов нефилологических факультетов. Опираясь на современные исследования в области психолингвистики, когнитивной психологии и языковой педагогики, в статье обобщаются современные представления о когнитивных механизмах, психологических процессах и педагогических подходах, способствующих формированию коммуникативной компетенции в иностранном языке у студентов нефилологических специальностей. Интеграция технологий в преподавание иностранного языка открывает значительные возможности для улучшения развития речевой компетенции у студентов нефилологических специальностей. Синтез современных*

исследований показывает, что эффективное развитие речевой компетенции требует подходов к обучению, которые одновременно основываются на психолингвистической теории, учитывают уникальные ограничения нефилологического контекста и ориентированы на профессиональные коммуникативные потребности студентов. Исследования, посвященные изучению эффективности интерактивных онлайн-курсов для развития речевой компетенции у студентов нефилологических специальностей, выявили несколько ключевых факторов, способствующих успешным результатам. Анализ показывает, что развитие речевой компетенции у этой группы студентов в основном определяется взаимодействием когнитивных процессов, включая память, восприятие, внимание и мышление, наряду с механизмами речевого производства и процессами языкового усвоения.

Ключевые слова *Речевая компетенция, когнитивный механизм, память, освоение языка, нефилологические факультеты*

Introduction

Psycholinguistics, as an interdisciplinary field bridging psychology and linguistics, examines the cognitive processes underlying language comprehension, production, and acquisition (Dakowska, 1993). From a psycholinguistic perspective, speech competence encompasses not merely the mastery of linguistic forms – phonology, morphology, syntax, and semantics – but also the cognitive capacity to process linguistic information in real-time, retrieve appropriate lexical and grammatical structures from memory, monitor and regulate speech production, and adapt communicative strategies to diverse interactional contexts. For non-philological students, developing this multifaceted competence requires instructional approaches that explicitly address the psychological foundations of language learning, including attention, perception, memory consolidation, cognitive load management, and metacognitive awareness.

The psycho-linguistic analysis of speech competence development provides a theoretical and empirical framework for understanding how cognitive processes, psychological mechanisms, and linguistic structures interact to facilitate language acquisition and production. Unlike philological students who engage in intensive, sustained language study as their primary academic focus, non-philological students face unique constraints including limited instructional hours, diverse entry-level proficiency, discontinuous language learning experiences, and the imperative to integrate language learning with professional domain knowledge. These contextual factors necessitate pedagogical approaches that are both psycholinguistically grounded and pragmatically adapted to the specific learning conditions of non-language majors.

The present article undertakes a systematic psycho-linguistic analysis of the process of developing speech competence in students of non-philological departments. Through synthesis of contemporary research, this article aims to: (1) elucidate the psycholinguistic foundations and cognitive mechanisms underlying speech competence development; (2) examine pedagogical approaches and instructional strategies specifically designed for non-philological

contexts; (3) analyze the challenges inherent in developing communicative competence within the constraints of non-language major programs; and (4) identify evidence-based practices and future directions for enhancing speech competence in this population. By integrating theoretical insights from psycholinguistics with empirical findings from educational research, this article contributes to a more nuanced understanding of how cognitive processes, linguistic structures, and pedagogical interventions interact to facilitate foreign language speech competence in specialized educational contexts.

Literature review

Psycholinguistic Foundations of Speech Competence

The psycholinguistic foundations of speech competence in foreign language learning rest upon fundamental cognitive processes that mediate between linguistic input and communicative output. Research has consistently demonstrated that the development of communicative competence is intrinsically linked to psychological mechanisms including memory, perception, attention, and thinking (Кирякова, 2024). These cognitive processes do not operate in isolation but function as an integrated system that enables learners to process linguistic information, construct mental representations, retrieve appropriate linguistic forms, and produce coherent speech in real-time communicative contexts.

Memory systems play a particularly crucial role in speech competence development. The coordination of visual-auditory imagery has been identified as a key mechanism for activating psychological processes that support foreign language communication (Кирякова, 2024). This multimodal integration facilitates the encoding of lexical items and grammatical structures in long-term memory while simultaneously supporting working memory processes essential for real-time speech production. Studies examining the psychological foundations of foreign language communicative competence formation in technical university students have emphasized that the mastery of lexical units and grammatical structures depends critically on the activation of memory processes through coordinated sensory modalities (Кирякова, 2024).

Perception constitutes another fundamental psycholinguistic factor in speech competence development. The ability to accurately perceive phonological distinctions, prosodic patterns, and acoustic features of the target language directly influences both comprehension and production capabilities. Research on speech production management from a cognitive perspective has highlighted the role of perceptual processing in developing fluency, demonstrating that learners must develop sophisticated perceptual schemas to distinguish phonemic contrasts and recognize lexical items in continuous speech (Mirzaei et al., 2012). For non-philological students, who often have limited exposure to authentic target language input, the development of accurate perceptual abilities represents a significant challenge requiring explicit instructional attention.

Attention and cognitive control mechanisms are essential for managing the complex cognitive demands of foreign language speech production. The deployment of attention resources influences which linguistic features learners notice in input, how effectively they can retrieve linguistic forms from memory during production, and their capacity to monitor and self-correct their speech output. Psycholinguistic research has established that attention is a limited cognitive resource, and learners must develop strategies for efficiently allocating attention across multiple dimensions of language processing – phonological encoding, lexical retrieval, syntactic formulation, and pragmatic appropriateness (Dakowska, 1993). For non-philological students balancing language learning with demanding disciplinary

coursework, attention management becomes particularly critical.

The structure and dynamics of speech actions constitute central concerns in psycholinguistic approaches to foreign language learning. Speech production involves a complex sequence of cognitive operations including conceptualization (formulating the intended message), formulation (selecting appropriate lexical items and grammatical structures), articulation (executing the motor programs for speech), and monitoring (detecting and correcting errors) (Khrin, 2020). Each of these stages draws upon distinct cognitive resources and can be disrupted by various factors including insufficient linguistic knowledge, cognitive overload, anxiety, or inadequate automatization of linguistic procedures. Understanding these speech mechanisms is essential for designing pedagogical interventions that target specific bottlenecks in the production process.

The role of speech mechanisms in mastering a foreign language extends beyond production to encompass comprehension processes as well. Successful language learning requires the activation and coordination of multiple speech mechanisms including phonological processing, lexical access, syntactic parsing, semantic integration, and pragmatic inference (Khrin, 2020). For non-linguistic specialty students, the challenge lies in developing these mechanisms sufficiently to support professional communication while working within the constraints of limited instructional time and competing academic demands.

Cognitive-conceptual models for developing foreign language communicative competence in non-linguistic university students have emphasized the importance of integrating psycholinguistic principles with pedagogical practice. These models recognize that communicative competence emerges from the interaction of linguistic knowledge (phonological, lexical, grammatical, and pragmatic), cognitive processing capabilities (attention, memory, perception), and metacognitive awareness (knowledge about language learning processes and strategies) (Evtyugina et al., 2020). Effective instruction must therefore address all three dimensions, providing not only linguistic input and practice opportunities but also explicit training in cognitive strategies and metacognitive reflection.

The psychological parameters relevant to forming foreign language communicative competence in non-language university students include motivation, self-efficacy beliefs, anxiety levels, learning styles, and cognitive aptitudes (Babak et al., 2024). These individual difference variables interact with instructional approaches to influence learning outcomes. Research has shown that students with higher levels of intrinsic motivation and self-efficacy demonstrate greater persistence in language learning tasks and achieve higher levels of communicative competence. Conversely, FL anxiety can significantly impair speech production by consuming cognitive resources and disrupting the smooth operation of speech mechanisms (Babak et al., 2024).

Metalinguistic awareness refers to the ability to consciously reflect upon and manipulate linguistic structures, and it has been associated with more effective language learning, particularly in instructed contexts (Dakowska, 1993). For non-philological students, who typically learn foreign languages primarily through formal instruction rather than immersion, metalinguistic awareness may serve as a compensatory mechanism, enabling them to analyze linguistic patterns, formulate explicit rules, and consciously apply these rules in production.

Cognitive Mechanisms in Language Acquisition

The cognitive mechanisms underlying language acquisition in non-philological students involve complex interactions between implicit and explicit learning processes, working memory capacity, processing speed,

and pattern recognition abilities. Contemporary psycholinguistic theory distinguishes between implicit learning, which occurs unconsciously through exposure to input, and explicit learning, which involves conscious attention to linguistic forms and rules. For ESP students with limited exposure to authentic target language input, explicit learning mechanisms play a particularly prominent role (Dakowska, 1993).

Working memory capacity has been identified as a critical cognitive factor influencing language acquisition outcomes. Working memory enables learners to temporarily hold and manipulate linguistic information during comprehension and production tasks. Research has demonstrated that individual differences in working memory capacity predict variance in vocabulary acquisition, grammatical development, and speech fluency (Mirzaei et al., 2012). For non-philological students, who must process complex professional content in addition to linguistic material, working memory limitations can create significant bottlenecks in language learning. Pedagogical approaches that reduce cognitive load through scaffolding, chunking, and strategic sequencing of instructional content can help mitigate these limitations.

The role of feedback mechanisms in language acquisition represents another important psycholinguistic consideration. Articulatory feedback, which involves the learner's perception of their own speech production, contributes to the refinement of phonological representations and the development of accurate pronunciation (Perrin, 2013). For non-philological students learning foreign languages, explicit attention to articulatory feedback and systematic pronunciation training may be necessary to overcome fossilized pronunciation patterns and develop intelligible speech. Research on the role of articulatory feedback in learning non-native phonemes has demonstrated that learners benefit from explicit instruction that draws attention to the relationship between articulatory gestures and acoustic output (Perrin, 2013).

Pattern recognition and statistical learning mechanisms enable learners to extract regularities from linguistic input and construct implicit knowledge of grammatical structures. Even in instructed contexts, learners unconsciously track the frequency and distribution of linguistic forms, gradually developing intuitions about what sounds "right" in the target language. For non-philological students, maximizing exposure to patterned input through extensive reading, listening activities, and interaction with authentic materials can support the development of implicit linguistic knowledge that complements explicit rule learning (Dakowska, 1993).

The development of automaticity in linguistic processing represents a crucial milestone in language acquisition. Automaticity refers to the ability to execute linguistic procedures rapidly and effortlessly, without conscious attention. As learners progress from controlled to automatic processing, cognitive resources are freed up for higher-level aspects of communication such as discourse organization, pragmatic appropriateness, and strategic communication (Mirzaei et al., 2012). For non-philological students, achieving sufficient automaticity in basic linguistic operations is essential for managing the cognitive demands of professional communication in a foreign language.

Cognitive load theory provides a framework for understanding how instructional design influences language learning outcomes. Cognitive load theory distinguishes between intrinsic load (the inherent complexity of the material), extraneous load (unnecessary cognitive demands imposed by poor instructional design), and germane load (productive cognitive effort directed toward learning) (Evtyugina et al., 2020). Effective instruction for non-philological students minimizes extraneous load through clear

presentation and organization, manages intrinsic load through appropriate sequencing and scaffolding, and optimizes germane load by engaging learners in meaningful processing activities.

The concept of transfer, both positive and negative, is central to understanding language acquisition in non-philological students who already possess native language competence and often have prior foreign language learning experience. Positive transfer occurs when knowledge or skills from the native language or previously learned languages facilitate acquisition of the target language. Negative transfer, or interference, occurs when prior linguistic knowledge leads to errors in the target language. Previous researches examined how learners' existing linguistic systems influence their perception, production, and acquisition of new linguistic forms (Oliveira, 2016). For instructors working with non-philological students, awareness of potential transfer effects can inform the selection of instructional focus and the design of practice activities.

Discussions

Integration of Psycholinguistic Theory and Pedagogical Practice

The synthesis of research on psycho-linguistic foundations and pedagogical approaches reveals a critical need for tighter integration between theoretical understanding of cognitive mechanisms and practical instructional design. While psycholinguistic research has elucidated the cognitive processes underlying speech competence development – including memory consolidation, perceptual processing, attention allocation, and speech production mechanisms – the translation of these insights into concrete pedagogical practices remains incomplete. The most effective approaches identified in the literature are those that explicitly bridge this theory-practice gap by designing instruction that directly targets specific cognitive processes and speech mechanisms (Khrin, 2020, Кирякова, 2024).

The coordination of visual-auditory imagery exemplifies successful integration of psycholinguistic principles with pedagogical practice. By deliberately engaging multiple sensory modalities in vocabulary and grammar instruction, educators can enhance encoding in long-term memory and facilitate retrieval during speech production (Кирякова, 2024). This approach is grounded in cognitive psychology research demonstrating that multimodal encoding creates richer memory traces and more robust retrieval pathways. For non-philological students, who often have limited time for language study, such efficiency-enhancing strategies are particularly valuable.

The explicit teaching of speech mechanisms represents another domain where psycholinguistic theory can inform pedagogical practice. Research has demonstrated that when students understand the cognitive operations involved in speech production – conceptualization, formulation, articulation, and monitoring – they can more effectively diagnose their own difficulties and employ appropriate strategies to address them (Соловйова, 2024). This metacognitive awareness transforms students from passive recipients of instruction to active managers of their own learning processes. For non-philological students balancing multiple academic demands, such self-directed learning capabilities are essential.

However, the literature also reveals significant gaps in the application of psycholinguistic insights to pedagogical design. While research has identified working memory limitations as a critical constraint on language learning, relatively few studies have systematically examined how instructional design can be optimized to reduce cognitive load and manage working memory demands in non-philological contexts. Similarly, while attention allocation has been recognized as crucial for language learning, explicit strategies for training students to deploy attention effectively across multiple dimensions of

language processing remain underdeveloped. Future research should focus on developing and empirically validating pedagogical interventions that directly address these cognitive constraints.

The role of individual differences in cognitive abilities, learning styles, and psychological characteristics presents both challenges and opportunities for pedagogical practice. Researches have consistently demonstrated that students vary significantly in working memory capacity, processing speed, aptitude for pattern recognition, and other cognitive factors that influence language learning (Babak et al., 2024). Differentiated instruction that accommodates this diversity while maintaining high expectations for all students represents a pedagogical ideal that is difficult to achieve in practice, particularly in large classes typical of non-philological programs. Technology-enhanced learning may offer partial solutions by enabling individualized practice and adaptive feedback, but the effectiveness of such approaches depends on careful integration with face-to-face instruction and ongoing monitoring of student progress (Bilichenko et al., 2024).

Technology-Enhanced Learning and Cognitive Development

The integration of technology into foreign language instruction for non-philological students offers significant potential for enhancing cognitive development and speech competence. Interactive online courses and digital learning platforms provide opportunities for individualized practice, immediate feedback, multimedia input, and connection with target language speakers that would be difficult or impossible to achieve through traditional classroom instruction alone (Bilichenko et al., 2024). However, the effectiveness of technology-enhanced learning depends on careful attention to cognitive principles and pedagogical design.

Research examining the effectiveness of interactive online courses for speech competence development in non-language-major students has identified several key factors contributing to successful outcomes. First, effective online courses provide structured opportunities for interactive communication, not merely passive consumption of content. Speaking practice activities that require students to produce extended discourse, receive feedback, and revise their production have been shown to significantly enhance speech competence (Bilichenko et al., 2024). Second, successful online courses integrate multimedia resources in ways that support rather than overload cognitive processing. The coordination of visual and auditory information, when designed according to cognitive load principles, can enhance learning by engaging multiple sensory modalities and creating richer memory representations (Кирякова, 2024).

The role of technology in creating enriched language environments for non-philological students deserves particular attention. While these students typically lack access to immersive target language environments, technology can partially compensate by providing extensive exposure to authentic materials, opportunities for interaction with target language speakers through video conferencing and social media, and access to online communities of practice (Гадаев et al., 2024). Research has demonstrated that students who actively engage with technology-mediated language environments show enhanced motivation, increased exposure to authentic language use, and improved communicative competence compared to students relying solely on classroom instruction.

However, technology-enhanced learning also presents challenges that must be addressed. Students vary in their digital literacy, access to technology, and ability to engage in self-directed online learning. Without adequate support and structure, technology-enhanced learning can exacerbate rather than reduce educational inequalities. Additionally, the proliferation of low-quality language learning

applications and resources creates challenges for students and instructors in identifying effective tools. Institutional support for technology integration, including professional development for instructors, evaluation of digital resources, and provision of technical support for students, is essential for realizing the potential of technology-enhanced learning.

Conclusion

This comprehensive psycho-linguistic analysis of speech competence development in students of non-philological departments reveals the complex interplay of cognitive mechanisms, psychological processes, linguistic structures, and pedagogical approaches that shape learning outcomes in this population. The synthesis of contemporary research demonstrates that effective speech competence development requires instructional approaches that are simultaneously grounded in psycholinguistic theory, responsive to the unique constraints of non-philological contexts, and oriented toward the professional communication needs of students.

The psycholinguistic foundations of speech competence encompass fundamental cognitive processes including memory, perception, attention, and thinking, alongside specialized speech production mechanisms and language acquisition processes. Research has established that the coordination of visual-auditory imagery, activation of working memory, perceptual processing of phonological input, and strategic deployment of attention significantly influence communicative competence development (Кирякова, 2024, Khirin, 2020). Understanding these cognitive mechanisms enables educators to design instruction that directly targets specific bottlenecks in the learning process and that employs strategies to enhance encoding, consolidation, and retrieval of linguistic knowledge.

The integration of technology into foreign language instruction offers significant potential for enhancing speech competence development in non-philological students. Interactive online courses, multimedia resources, and AI-powered learning applications can provide individualized practice, immediate feedback, extensive exposure to authentic materials, and opportunities for interaction with target language speakers (Bilichenko et al., 2024). However, the effectiveness of technology-enhanced learning depends critically on pedagogical design that adheres to cognitive principles, ensures active rather than passive engagement, and integrates online resources with face-to-face instruction and human feedback.

The role of individual differences in cognitive abilities, learning styles, and psychological characteristics deserves more systematic attention. While research has documented the existence of such differences, practical strategies for accommodating diversity while maintaining high expectations for all students require further development and validation. Fourth, the long-term retention and continued development of speech competence beyond formal instruction merits investigation. Understanding factors that support or impede maintenance of linguistic skills after students complete language courses could inform both instructional design and institutional policies.

Concluding, the research synthesized in this article demonstrates that when instruction is grounded in understanding of cognitive mechanisms, responsive to contextual constraints, strategically focused on high-priority competencies, professionally oriented, and enhanced through thoughtful technology integration, significant improvements in communicative competence are achievable even within the limitations characteristic of non-philological programs.

References:

1. Bilichenko, A., Martynenko, N., Derevianko, L., Mizina, O., & Iatsyna, M. (2024). The effectiveness of interactive online courses for the speech competence development in non-language-major students. EDUWEB, 18(3), 204–222. https://doi.org/10.46502/issn.1856-7576/2024.18.03.16
2. Dakowska, M. (1993). Language, metalanguage, and language use: a cognitive psycholinguistic view. *International Journal of Applied Linguistics, 3*(1), 79–99. https://doi.org/10.1111/j.1473-4192.1993.tb00044.x
3. Evtyugina, A., Zhuminova, A., Grishina, E., Kondyurina, I., & Sturikova, M. (2020). Cognitive-Conceptual model for developing Foreign language communicative competence in Non-Linguistic University students. *International Journal of Cognitive Research in Science Engineering and Education, 8*(Special issue), 69–77. https://doi.org/10.23947/2334-8496-2020-8-si-69-77
4. Khrin, I. (2020). Psycholinguistic peculiarities of formation of foreign language communicative competence of students of non-linguistic specialties. *Psihologia Pedagogia Specială Asistența Socială = Psychology Special Pedagogy and Social Work, 61(*4), 83–91. https://doi.org/10.46728/jpspsw.2020.v61.i4.p83-91
5. Mirzaei, A., Domakani, M. R., & Rahimi, S. (2012). Exploring L2 speech production management from a cognitive perspective: A focus on fluency. *Applied Linguistics, 33*(5), 547-568.
6. Oliveira, M. (2016). *A influência da instrução fonética explícita na produção e na percepção dos fricativos sonoros por hispanofalantes aprendizes de Português como Língua Estrangeira - PLE.* (Doctoral dissertation, Universidade Federal do Rio Grande do Sul).
7. Perrin, L. (2013). *Le rôle du feedback articulatoire dans l'apprentissage des phonèmes d'une langue non native*. (Doctoral dissertation, Université Grenoble Alpes).
8. Бабак, О., & Солопанова, О. (2024). Consideration of psychological parameters when forming foreign language communicative competence in non-language university students. *Вестник Педагогических Наук., 6,* 38–42. https://doi.org/10.62257/2687-1661-2024-6-38-42
9. Гадаев, Р., & Усманов, Т. (2024). Роль языковой среды в обучении иностранным языкам на неязыковых факультетах вуза. *Management of Education, 14*(4-1(80)), 42–50. https://doi.org/10.25726/o6410-6597-6544-x
10. Кирякова, О. (2024). *ПСИХОЛОГИЧЕСКИЕ ОСНОВЫ ФОРМИРОВАНИЯ ИНОЯЗЫЧНОЙ КОММУНИКАТИВНОЙ КОМПЕТЕНЦИИ у СТУДЕНТОВ ТЕХНИЧЕСКОГО ВУЗА*. cyberleninka.ru. https://doi.org/10.24412/2500-1000-2024-3-3-185-188
11. Соловйова, Н. (2024). УРАХУВАННЯ МЕХАНІЗМІВ МОВЛЕННЄВОЇ ДІЯЛЬНОСТІ ПРИ НАВЧАННІ МОНОЛОГІЧНОГО МОВЛЕННЯ СТУДЕНТІВ НЕМОВНИХ СПЕЦІАЛЬНОСТЕЙ НА ЗАНЯТТЯХ з АНГЛІЙСЬКОЇ МОВИ. *ГРААЛЬ НАУКИ, 35,* 418–424. https://doi.org/10.36074/grail-of-science.19.01.2024.075