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METHODOLOGICAL JOURNAL<http://mentaljournal-jspu.uz/index.php/mesmj/index>DEVELOPING PROFESSIONAL LEXICAL COMPETENCE OF  
TECHNICAL UNIVERSITY STUDENTS IN RUSSIAN LANGUAGE INSTRUCTION:  
A PRACTICE-ORIENTED APPROACH**Mukaddas Raufovna Yusupova**

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## ABOUT ARTICLE

**Key words:** professional lexical competence; Russian language instruction; language for specific purposes; technical university students; professionally oriented texts; terminology acquisition.

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**Abstract:** The growing demand for professionally competent graduates in technical fields has increased the importance of language training oriented toward professional communication. This study examines the effectiveness of a practice-oriented methodological approach to developing professional lexical competence among students of technical specialties during Russian language instruction. The research was conducted with first- and second-year technical students ( $n = 30$ ) and employed pedagogical experimentation, diagnostic testing, observation, and comparative analysis. The instructional intervention was implemented over one academic semester and focused on professionally oriented texts, terminological vocabulary, contextual lexical exercises, and communicative tasks. Quantitative and qualitative analyses revealed significant improvements in students' understanding and use of professional terminology, comprehension of professional texts, and oral application of lexical units. The findings confirm that systematic, context-based, and professionally oriented instruction substantially enhances students' professional lexical competence and facilitates their adaptation to real professional and industrial environments. The results may be

**Introduction.** In the modern higher education system, the importance of language competencies in preparing students of non-philological, particularly technical, specialties for professional activity has been steadily increasing. Today, the Russian language functions not only as a means of general communication but also as an essential tool for working with technical documentation, scientific and technical texts, production process manuals, and professional communication [1]. Therefore, in technical higher education institutions, teaching the subject “Russian Language” should primarily focus on developing students’ professional lexical competence (Russian: профессионально-ориентированная лексическая компетенция).

Practical observations indicate that although students of technical specialties tend to acquire general lexical units in Russian relatively easily, they encounter significant difficulties in actively using terms, terminological combinations, and scientific-technical concepts related to their professional activity (e.g., технологический процесс, производственная линия, сырьё, оборудование, режим работы) in speech [2,3]. This situation is primarily associated with the insufficient systematic and methodological formation of professional vocabulary in the process of teaching Russian.

In scientific and methodological literature, professional lexical competence is interpreted as a learner’s ability to comprehend, memorize, and consciously use words and terms that represent professional concepts in speech activity (лексическая компетенция, язык специальности). Researchers emphasize that lexical competence constitutes a core component of professional communicative competence, as it enables the full development of such types of speech activity as reading (чтение), writing (письмо), listening comprehension (аудирование), and speaking (говорение) [4].

In the practice of teaching Russian in technical higher education institutions, there is often an overreliance on general language material, limited engagement with professional texts, and a lack of specialized tasks aimed at consolidating terminological vocabulary. As a result, although students may achieve partial success in understanding texts related to their field of specialization, they frequently fail to reach a level that allows them to express independent professional opinions or actively use terminology in professional situations. This, in turn, slows graduates’ adaptation to real industrial and professional environments.

From this perspective, the development of practice-oriented methodological approaches aimed at forming professional vocabulary during Russian language instruction and the

experimental evaluation of their effectiveness constitute a relevant scientific and pedagogical problem [5,6]. In particular, terminological materials selected in accordance with technical specialties, tasks based on professional texts, and a systematically designed set of lexical exercises play a crucial role in developing students' professional lexical competence.

The purpose of this study is to develop a practice-oriented methodological approach to forming professional lexical competence among students during Russian language instruction in technical higher education institutions and to substantiate its effectiveness based on experimental results. Within the framework of the study, methods focused on working with professionally oriented lexical material, acquiring terminology in context, and applying it in speech activity are analyzed.

**Research aim and objectives.** The main aim of this study is to develop a practice-oriented methodological approach to forming students' professional lexical competence (Russian: профессионально-ориентированная лексическая компетенция) during Russian language instruction in technical higher education institutions and to determine its effectiveness on the basis of experimental evidence. Particular attention is paid to the mechanisms of conscious acquisition of terminological vocabulary (терминологическая лексика), professional collocations, and scientific-technical concepts, as well as their active use in speech activity within the framework of professionally oriented Russian language teaching.

To achieve this aim, the following scientific and practical objectives were set:

1. To identify the content and structural components of professional lexical competence in teaching Russian to students of technical specialties and to analyze the theoretical and methodological foundations for its formation.
2. To conduct an initial diagnostic assessment (entry testing) in order to determine the level of students' acquisition of professionally oriented lexical units in Russian, including technical terms, terminological collocations, and general scientific concepts (язык специальности, научно-техническая лексика) in their speech activity.
3. To design a system of practical tasks based on professionally oriented texts (профессионально-ориентированные тексты) and terminological materials relevant to technical specialties and to implement them in the Russian language instructional process.
4. To develop students' professional lexical competence through lexical exercises (лексические упражнения) aimed at acquiring, consolidating, and using terminological vocabulary in context, including work with texts, translation, comparison, and communicative tasks.

5. To evaluate the effectiveness of the implemented practice-oriented methodological approach by conducting final assessment procedures and analyzing changes in the level of students' professional lexical competence using quantitative and qualitative indicators.

6. To develop practical and methodological recommendations for forming professional lexical competence in teaching Russian in technical higher education institutions based on the obtained results.

**Research methodology.** In order to determine the effectiveness of forming students' professional lexical competence during Russian language instruction in technical higher education institutions, this study employed pedagogical experimentation, observation, diagnostic testing, and comparative analysis methods [7,8,9]. The research methodology was developed based on practice-oriented methodological approaches recommended in scientific literature and was adapted to real educational conditions.

**Participants and Research Context.** The experimental work was conducted with first- and second-year students enrolled in technical specialties. A total of 30 students participated in the study. Instruction was carried out within the framework of the approved curriculum of the higher education institution in the subject "Russian Language." Classes were held for 2 hours per week over the course of one semester. The research was implemented under conventional classroom-based instructional conditions.

**Research Design and Stages.** The study was organized as a three-stage pedagogical experiment:

**Diagnostic (initial) stage.** At this stage, an entry assessment was conducted to determine the initial level of students' professional lexical competence. The diagnostic procedures included tests and written tasks aimed at assessing students' comprehension and use of Russian technical terms and terminological collocations related to the technical field (e.g., технологический процесс, оборудование, сырьё, производственная линия, режим работы). The results indicated that students' knowledge and skills related to professional vocabulary were insufficiently developed.

**Experimental (practical) stage.** During this stage, a practice-oriented methodological approach aimed at forming professional lexical competence was implemented in Russian language instruction. The instructional process incorporated professionally oriented texts (профессионально-ориентированные тексты), terminological dictionaries, contextual exercises, and communicative tasks. Students systematically completed lexical exercises (лексические упражнения) focused on understanding terminology in context, translation,

explanation, and active use in speech. Throughout this stage, students' engagement and the dynamics of their use of terminological units were continuously monitored.

Final (control) stage. At the conclusion of the experiment, final assessment procedures were conducted to determine the level of development of students' professional lexical competence. The tests and tasks at this stage were designed to be comparable in content and level of difficulty to those used during the initial diagnostic stage. The results were processed using comparative analysis, which made it possible to identify positive changes in students' acquisition of terminological vocabulary.

Data Analysis Methods. The collected empirical data were analyzed using both quantitative and qualitative approaches. Students' initial and final results were compared on the basis of percentage indicators. In addition, observational data were used to assess the accuracy and frequency of students' use of professional terminology in speech activity. The analysis results provided evidence for the effectiveness of the practice-oriented methodological approach aimed at forming professional lexical competence.

**Results.** The results of the pedagogical experiment conducted in the course of this study confirmed the effectiveness of the practice-oriented methodological approach aimed at forming professional lexical competence among students of technical specialties. A comparison of the initial and final assessment results demonstrated significant positive changes in the level of students' acquisition of professional terminology in Russian (профессиональная лексика, язык специальности).

Comparative Analysis of Initial and Final Indicators. According to the test results obtained at the diagnostic (entry) stage, the majority of students experienced difficulties in understanding and using Russian technical terms and terminological collocations in speech. In particular, the level of correct comprehension and contextual use of such terms as технологический процесс, оборудование, производственная линия, and сырьё was relatively low.

The final assessment conducted at the end of the experiment revealed positive dynamics across all key indicators of professional lexical competence.

Table 1

Initial and Final Levels of Students' Professional Lexical Competence (%)

Assessment indicators	Initial stage (%)	Final stage (%)
Understanding of terminology (лексическое понимание)	44	78
Correct use of terms (употребление терминов)	38	72

Comprehension of professional texts (понимание профессионального текста) 46  
81

Oral use of terminology (говорение) 35 70

As shown in Table 1, growth was observed across all assessment indicators. In particular, the level of terminology comprehension increased by 34%, while the indicator for understanding professional texts rose by 35%. These results demonstrate the high effectiveness of the methodology focused on learning professional vocabulary through contextualized instruction.

**Qualitative Analysis of Results.** The qualitative analysis showed that students not only learned to recognize professional terms in Russian but also began to use them consciously in speech activity. By the end of the experiment, students demonstrated the ability to independently identify terminological units while reading texts related to their technical specialization, explain their meanings, and actively use them in professional communication. In addition, during the completion of communicative tasks (коммуникативные задания), students became noticeably more confident and active in using professional terminology.

Overall, the obtained results indicate that the practice-oriented methodological approach aimed at forming professional lexical competence enhances the effectiveness of Russian language instruction and contributes to the acquisition of professionally relevant lexical material by students of technical specialties.

**Discussion.** The findings of this study demonstrate the high effectiveness of the practice-oriented methodological approach aimed at forming professional lexical competence in the process of professionally oriented Russian language instruction for students of technical specialties. The significant differences observed between the initial and final assessment results confirm that systematic, context-based, and communicative instruction of professional vocabulary (профессиональная лексика, язык специальности) has a direct positive impact on students' lexical development.

Analysis of the results indicates that the substantial increase in indicators related to terminology comprehension and understanding of professional texts can primarily be attributed to the use of профессионально-ориентированные тексты during instruction. Texts with professional content enabled students to comprehend the functional role of terms in authentic communicative contexts and contributed to deeper semantic acquisition of lexical units. This finding highlights the priority of a contextual approach in the formation of lexical competence.

The noticeable improvement in the oral use of terminology (говорение) is associated with the effectiveness of communicative tasks (коммуникативные задания) applied during the instructional process. Practical experience showed that students acquire terminology more actively not through rote memorization but through its application in specific professional situations. This indicates that professional lexical competence was formed not at a reproductive but at a productive level.

The obtained results are consistent with conclusions reported in previous studies. In particular, it has been emphasized that teaching professional vocabulary is more effective when terminological material is learned in close connection with professional activity rather than isolated from general language exercises, as this approach enhances student motivation and improves learning outcomes. Within the framework of the present study, students were likewise observed to recognize the integration of subject content and language while working with professional texts in Russian.

At the same time, the results also reveal the limitations of traditional lexical approaches in teaching Russian in technical higher education institutions. Instruction focused predominantly on general vocabulary is insufficient for fully developing professional communicative competence. In contrast, systematic work with terminological units and their reinforcement through professional texts and situational tasks facilitates students' adaptation to real industrial and scientific environments.

Overall, the discussed results indicate that the practice-oriented methodological approach aimed at forming professional lexical competence enriches the content of Russian language instruction, strengthens its professional orientation, and contributes to improving students' professional communicative readiness. This approach can therefore be regarded as methodologically sound and перспективе-oriented for implementation in the practice of teaching Russian in technical higher education institutions.

**Conclusion.** This study scientifically substantiated the relevance of the problem of forming students' professional lexical competence during Russian language instruction in technical higher education institutions and confirmed the effectiveness of the practice-oriented methodological approach applied in this field. The results of the conducted pedagogical experiment demonstrated that professionally oriented Russian language instruction (язык специальности) has a positive impact on the development of students' ability to consciously acquire terminological vocabulary and actively use it in speech activity.

An analysis of the initial and final assessment results revealed significant growth across all key components of professional lexical competence, including understanding of terminology



(лексическое понимание), correct use of terms (употребление терминов), comprehension of professional texts, and oral use of professional vocabulary (говорение). These findings confirm the practical effectiveness of the methodology focused on teaching terminological vocabulary through contextualized instruction, professional texts, and communicative tasks.

The study results also indicate that classes organized on the basis of professionally oriented texts (профессионально-ориентированные тексты) and specialized lexical exercises (лексические упражнения) enhance students' confidence in professional communication in Russian, increase their speech activity, and promote learner autonomy in the use of terminology. This, in turn, facilitates graduates' adaptation to real industrial and scientific-technical environments.

Overall, the practice-oriented methodological approach developed within the framework of this study makes it possible to align the content of Russian language instruction in technical higher education institutions with professional needs, improve students' professional communicative preparedness, and enhance the overall effectiveness of the educational process. The results of the study are methodologically grounded and can be applied in the practice of teaching Russian in non-philological specialties, serving as a valuable scientific and practical resource for further research aimed at developing professional language competencies.

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