

UDC 378.147

DOI: 10.23951/2782-2575-2022-1-64-74

## MODERN ASPECTS OF STUDYING RUSSIAN TERMINOLOGY BY INTERNATIONAL STUDENTS AT THE PREPARATORY DEPARTMENT IN A TECHNICAL UNIVERSITY\*

*Lyudmila I. Yaritsa<sup>1</sup>, Battsetseg Narmandakh<sup>2</sup>*

<sup>1</sup> *Tomsk State University of Architecture and Building, Tomsk, Russian Federation*

<sup>2</sup> *Representative office of Rossotrudnichestvo in Mongolia, Russian House in Ulanbator, Ulanbator, Mongolia*

**Abstract.** In this study, one of the aspects of teaching Russian as an international language, namely the teaching of mathematical terms in the preparatory department of a technical university in Russia, is considered. The relevance of this subject has arisen due to the growing number of international students in Russian universities and the need for them to master the Russian language as soon as possible to continue their studies at Russian universities.

This work aims to describe the learning process of Russian scientific vocabulary and terminology of technical disciplines, especially the language of mathematics, by international students from the countries of the former Soviet Union studying at the Preparatory Department of Tomsk State University of Architecture and Civil Engineering. The complexity of mastering scientific vocabulary in Russian arises from the characteristic differences between Russian and Turkic languages.

A linguistic experiment was conducted in which students heard and wrote down scientific terms, words, and phrases in Russian. Students were given a dictation test rich in scientific vocabulary. The results have been gathered, and numerous errors in spelling scientific terms have been pointed out. Studies in Russian universities take place mainly in Russian, with active use of scientific vocabulary, which is extremely difficult for people who are just beginning to learn Russian. After correcting the mistakes and explaining the correct spelling of the words, the dictation is repeated. The results obtained are compared.

The features of deviations from the norm are identified, described, and structured, and options for working on the implementation of a program for the development of normative writing skills in international students are suggested. For example, it is quite challenging to determine the boundaries of a word, to identify differences between prefixes and prepositions, the normative spelling of vowels in the endings of nouns, adjectives, and verbs, and the spelling of fricative consonants.

**Keywords:** *higher education in Russia, teaching international students, Russian as a foreign language, scientific language style, scientific terminology, language of mathematics.*

In recent years, the percentage of international students at Russian universities has increased. There are many reasons for this. Firstly, the changing role of teachers, their competencies [1, p.41; 2–4], the academic mobility of students [5], and the requirements for accessibility and improving the quality and efficiency of education [1, 3]. Secondly, the cost of education in

---

\* *Original Russian language version of the article: Yaritsa L.I. Izucheniye terminologii inostrannymi studentami na podgotovitel'nom otdelenii v tekhnicheskoy vuzе [Terminology Study by Foreign Students at the Preparatory Department at a Technical University]. Nauchno-pedagogicheskoye obozreniye – Pedagogical Review, 2020, vol. 6 (34), pp. 129–139 (in Russian). DOI: 10.23951/2307-6127-2020-6-129-139*

Russian universities is much lower than in European and American universities, which makes education in the Russian Federation more accessible [5].

International students who have completed a one-year (one-and-a-half-year) course of study at the University Preparatory Department can study at any university in the Russian Federation [5, p. 70].

However, the increase in the proportion of international students at Russian universities is accompanied by a deterioration in the mathematics performance of most international students, especially if they pay full tuition [6, 7].

During one year (sometimes one-and-a-half-years) of studies at the preparatory department, international students of a technical degree program must learn the basic material of courses such as scientific language, mathematics, physics, computer science, and technical graphics in Russian.

The study of mathematical language is introduced into the educational process after two months of Russian language teaching in parallel with the scientific language style course.

The experience of teaching in the preparatory department has shown that in recent years there has been an increase in the number of international students who have difficulty in memorizing a large amount of information, are unable to grasp the essence of the text, and work independently with literature in Russian [8, 9]. Poor education required the activation of cognitive activity of both students and teachers, for whom an important aspect of pedagogical activity was the activation of the competence-based approach, the formation of knowledge and technologies, and the strengthening of communicative orientation [10].

Therefore, teachers of Russian as a foreign language teaching international students in the Russian Language Preparation Department are constantly looking for new forms and methods of organizing students' educational process and independent work [10].

We consider the study of the language of mathematics as an extremely important element of the curriculum of a technical university, and within the framework of education, we set the main tasks for teaching international students:

- To familiarize students with mathematical terms, definitions, concepts, symbols, signs, and notations, the knowledge which they need for the study of higher mathematics
- To teach how to recognize the main idea in a mathematical text and write a summary
- To teach how to write a mathematical text using mathematical symbols [11].

In the initial stage of teaching international students in the preparatory department of a technical university, the main problem is insufficient knowledge of active vocabulary. This prevents them from developing the linguistic and communicative skills necessary for learning [6, 11–14].

The Russian language is necessary for international students to learn about their future profession, set a goal, and choose a way to achieve it.

To successfully master a technical discipline (due to the different curricula) in the conditions of gradual mastery of the Russian language, the student needs methodological support [10, 11].

In this case, the study of mathematics with the inclusion of its universal symbolic language can help in learning Russian and contribute to the formation of an internal language system in the minds of students as well as the study of the language of their major, which is necessary for successful learning in the future. Therefore, it is necessary that the student understands the lecture material, learns to highlight the most important points in the text of the lecture, can write a summary by themselves, and educate themselves [11].

The study of mathematical terms in Russian first takes place in the scientific language style classes in Russian as a Foreign Language course and is gradually deepened and systematized in the mathematics classes and then in chemistry, physics, and technical graphics.

Students learn familiar formulas and graphs of functions in written form, solve equations similar to those they solved in school while learning in their native language, hear terms in Russian, and thus learn technical disciplines.

One of the most important tasks of teachers of mathematical disciplines for international learners is to teach students to use mathematical terminology in Russian, develop the ability to formulate definitions and theorems, and write them correctly in Russian [9, 14, 15].

Mathematical symbols: = – equality (equal);  $\neq$  – inequality (not equal);  $<$  – strict inequality (less than);  $>$  – strict inequality (greater than);  $\in$  – set membership (belongs to);  $\notin$  – not in;  $\exists$  – existential quantification (there exists);  $\forall$  – for any;  $\cup$  – set-theoretic union (union); set-theoretic intersection (intersection), and so on., are understood by speakers of any language, and their meaning does not change depending on the language.

The language of mathematics can serve as a tool. Using familiar symbols instead of words makes it possible to construct already known mathematical statements and control whether or not students perceive this information and how completely and accurately it is perceived.

With the help of mathematical symbols, it is possible to create associative structures from other subject areas, thus expanding students' vocabulary and organizing the acquired knowledge into a system [16, 17].

Scientific terminology is first learned in class through the scientific language style course and then in mathematics, physics, and chemistry classes, contributing to more solid assimilation.

The terms are integrated into the lexical-grammatical constructions of the Russian language, using various language models from mathematical and technical texts.

Difficulties in comprehension arise when polysemantic words are used, whose meanings in the language of mathematics differ from those in everyday language. This work helps students better understand all the subtleties of the language and prepare for the perception of stereotyped expressions and non-adapted language, which they will encounter in lectures after the first year of study.

Cooperation with a Russian language teacher allows filling the content of the text material presented in class according to the needs of other disciplines [11, 8, 9].

In each of the lectures, students hear new theoretical information and actively solve tasks, which improves comprehension and memorization of the information, as students are involved in oral and written forms of work, and the fact that students think in their native language slows down the thinking process. Language and even the first lectures are written in their native language, which slows down the work.

To determine the difficulties in mastering Russian scientific vocabulary, we conducted a linguistic experiment on two groups of first-year students (26 people) from neighboring countries (Turkmenistan, Uzbekistan, Tajikistan, Tyva). At the first stage of the experiment, students were asked to write a mathematical dictation consisting of words, phrases, and sentences. Then we asked each student to explain why they wrote everything the way they did. Following this phase, an assessment was conducted. In the last phase, the students wrote the dictation again. The number of errors decreased significantly.

Errors in writing words in a non-native language are quite common among students from neighboring countries studying Russian at the Preparatory Department of Tomsk State University of Architecture and Building. Let us point out the main features of these errors (the students' spelling has been retained). The most common deviations from the norm are:

- Errors in agreement of subject and predicate (цифры обозначает числам, прямые линии чертит карандашом)
- Errors in matching a noun with an adjective, pronoun, and numerals (систематическое запис, числого вроженья, дватсот тесичь кник, пиятст девит лет)
- Misunderstanding of hard and soft consonants (простая дроп, запис, примерь, брать, чась, воть, сем, скопкы, розност, мырадоства, дватст, тесичь, дисичеьний, натуралные, показатил, степен, селое, тридцядь)
- Misunderstanding of palatalized (soft) consonants before vowels е, ё, ю, я (множетелья, рязные, сумь, трицядь, пиятсот, девядцот, семдесят, семьдесять)
- Incorrect understanding of unvoiced/voiced consonants (сполнизетися, девядь)
- Incorrect use of vowels that are similar in spelling or pronunciation (розност, корондашом)
- Difficulty in perceiving vowels at the end of words (вичетания, записивый, слогаемо, степение, тысячат, девитносто, тесичь, вычитаеме)
- Difficulty in pronunciation, perception, and spelling of a vowel between two consonants (внесение, дление, вражение, взведение, пиятст, дватст)
- Incorrect use of singular and plural nouns (орифметический действия, сложенья, слажениния, для шота предмета, десятичное дробь, две тысяча)
- Difficulty in pronouncing and spelling two or more adjacent vowels, omitting one of them (призвидения, действо)
- Difficulties in determining the gender of nouns and adjectives (нотуралное запис, систематическое запис, кводрадный скопкый, длимая, присти опши зимнатилю, сменишиния, положительная число, отресателная число, одинаковая знаки, примий линии)
- The difficulty of determining the location of the soft sign in words (суммь, дильтил, дисичеьний дрок, натуралнье, степен, чемь, частьная)
- The absence of the soft sign (положитилнийе, числител, паказатил, болши, девядсот, пият, уминшаемая, большее чем, меньшее чем, розност, дроп, степен)
- Difficulty in determining word boundaries, incorrect use of prepositions and prefixes, combining two words into one or forming two words from one (спойумыщ, дву знанны число, вы несинья вномножесинья, заскопке, не равенство, вы читаниемое, вилентна метро, противо положнее, привнисти к общезнаминатилью)
- Replacing an unfamiliar and therefore unintelligible word with a familiar, understandable one (понятное в математике – понятие, часть моя – частное, степи – степень, десятиьтысичное дроп)
- Difficulty in pronunciation and perception of a sustained consonant (раскрытие, натуралльные)
- Pronunciation of two- to three-syllable words is distinguished with great difficulty. Consonants are often spelled arbitrarily (записуют, тиримилие черти корондашом, нужно скратик зиминнатилю, ротсиональный показатель);
- Difficulty in perceiving the sound [ы], inconsistencies in spelling arises from its absence in the students' native language (записивит, внесение, скопкый, мырадоства, вороженья, даситычная дроп).

The table shows the words and phrases dictated by the teacher and the written results of the students; in most cases, it is misspelled; the explanations and possible causes for the errors made are given.

Table 1

| Words and phrases dictated by the teacher Words and phrases | written by the student                    | Notes   |
|---|---|---|
| понятие математики  | понятное в математике                     | Difficulty in perceiving a word in a non-native language. The word “понятное,” which the student knows, is used to explain an unknown lexeme “понятие”  |
| для счёта предметов   | для шота предмета,<br>для шёта притметов, | Misinterpretation of hard and soft (palatalized) fricative consonants (ш/щ) and paired voiced and unvoiced consonants (д/т)   |
| используется  | сполнизетися                              | Misinterpretation of voiced and unvoiced consonants (д/т) and hard and soft (л/ль), additional consonants appear  |
| записывают с помощью цифр                                   | записивит с помнит<br>сифр, спойумыщ      | Students do not hear a difference between (ы/и, ц/с, о/ы). The soft sign separation function is hardly perceived by the ear (с помощью)   |
| двузначное число  | дву знанны число                          | “Дву” – a word with similar pronunciation as “два”, the sound [ч'] is omitted as it remains unheard   |
| запись натурального числа                                   | нотуралное запис                          | Misunderstanding of hard and soft consonants (л/ль, с/сь), the word order is incorrect; one word is missing; no agreement between adjective and noun  |
| записывают  | записивый                                 | Misunderstanding of hard and soft (с/сь), the ending is not perceived by the ear and is replaced by what seems clear to them  |
| систематическая запись                                      | системотическое запис                     | Misunderstanding of hard and soft (с/сь), misunderstanding of unstressed vowels, difficulty in mastering unstressed vowels o/a in the root and at the end of words, incorrect use of adjective and noun agreement |
| вычитаемое  | вичетания                                 | Difficulties in listening comprehension of words, the substitution of vowels at the end of words in nouns in singular and plural, misunderstanding of hard and soft (вы/ви)                                       |
|   | вы читаниемое                             | Boundaries are defined incorrectly (“вы” is written separately, as a personal pronoun), difficulties in listening comprehension, formation of invented morphemes (читаниемое)                                     |
| уменьшаемое   | уминцаемое                                | Misunderstanding of hard and soft (н/нь, ш/щ, н/нь, ш/щ); additional letters are added to the word (-емное)   |
| разность  | розност                                   | Misunderstanding of stressed vowels (a/o), writing a letter similar to the spelling of (a/o).<br>Misunderstanding of hard and soft consonants (т/ть)  |
| пять тысяч  | пятьтысяч                                 | Difficulties in defining the boundaries of digit spelling. Difficulties in pronunciation (тьт) are not observed   |
| две точки   | двечки                                    | Numerals are written in a word with a noun.   |
| разные знаки  | разнйзнаки                                | This phrase (adjective + noun) is written in one word, although it is almost impossible to pronounce five consonants together (зньзн)   |
| частное   | часть моя                                 | Substitution of an unfamiliar word for one already heard and therefore familiar   |
| раскрытие скобок  | раскрытие скобок                          | Misunderstanding the sound duration of consonants   |

Continuation of Table 1

| Words and phrases dictated by the teacher | Words and phrases written by the student | Notes  |
|---|--|--|
| вынесение                                 | внесение                                 | Difficulty in pronunciation and perception of vowels, the student does not hear a vowel between two consonants; the meaning of the word is reversed  |
| вынесение множителя за скобки             | внесение множителя                       | Difficulty hearing vowels, the student does not distinguish between a vowel in a position between two consonants; the lexical meaning of the word changes to an antonym (вынесение/внесение); difficulty writing a soft consonant: instead of (ля) ] the student chooses to write the palatalized (л) with a soft sign |
|   | вы несинья<br>вмножесинья<br>заскопке    | Difficulty in determining the boundaries of words (вы – is separated, заскопке – in a word, вмножъя- in a word); writing a separating soft sign (-нья instead of -ния)   |
|   | внесение обжего<br>множателя             | Difficulty hearing a vowel between consonants (множателя). Misunderstanding of the hissing consonants (ж/щ) – обжего   |
| квадратные скобки                         | кводрадный скопкый                       | Misunderstanding of voiced and unvoiced consonants (д/т, п/б), hard and soft (ки/кы); there is a desire to complete the word with a consonant (й)  |
| возведение в степень                      | возбудеием степи                         | Misunderstanding of consonants (б/в) that are close in spelling, the desire to complete the word with a consonant. Substitution of an unknown word (степень) for one already heard and known (степи); errors in spelling word endings: Misunderstanding of vowels in endings   |
| показатель степени                        | показатели стемный                       | Misunderstanding of vowels that are close to each other in spelling (и/ы), as well as misunderstanding of hard and soft consonants (л'/л), in the second word, there is an ambiguous perception by the ear and consequently writing of additional letters (н/мн)   |
| неравенство                               | не равенство                             | Incorrect definition of word boundaries (spelling error)   |
|   | мырадства                                | Misunderstanding of hard and soft consonants (м/н) and those similar in spelling (в/д), misunderstanding of hard and soft consonants (не-/мы-)   |
| в целое число                             | вселое число                             | Incorrect definition of word boundaries, incorrect word division, misunderstanding between a preposition (в) and a prefix (в-), misunderstanding of hissing consonants (ц/с)   |
| деление                                   | дление                                   | The vowel sound (e) is reduced. Between two soft consonants, the vowel (e) is not defined (neither pronounced nor written)   |
| делимое                                   | длимое длимая<br>делимейе                | No (e) between two palatalized consonants. Incorrect use of sounds after the stressed vowel at the end of a word; difficulty in gender determination   |

Continuation of Table 1

| Words and phrases dictated by the teacher | Words and phrases written by the student                                    | Notes  |
|---|---|--|
| делитель                                  | длитель, дилеты, дилити   | Omission of the sound [э] in the pre-stressed position; between two palatalized consonants, the sound [и] is not always determined; writing a palatalized consonant with a separating soft sign (дилеты); misunderstanding of sounds at the end of a word (титель) |
| сложение                                  | сложенья<br>слажения  | Difficulty in determining the gender of a noun. Misunderstanding of sounds at the end of words (-ья/-ния), repetition of similar sounds (-нии-)  |
| слагаемое                                 | слагаемо  | Loss of a vowel, misunderstanding of vowels at the end of a word. Of the two vowels at the end of a word (-ое), the last one is not heard by the student and, therefore, not written down  |
| множитель                                 | множитик  | Difficulty hearing the final vowels and consonants in the suffix (-тель/-тик)  |
| произведение                              | призвидения   | Reduction of vowels at the intersection of morphemes [а, и], the sound [а] is not written with the letter (о)  |
| числовое выражение                        | числовое вражение;<br>числовое вложение                                     | Reduction. Between two hard consonants (в, п/л), the vowel (ы) is not present; incorrect pronunciation of sonorous consonants [р, л]   |
|   | числового вороженья   | The sound [ы] is not heard because it is not present in the languages of the neighboring countries. This sound is either replaced by another vowel or not written at all. Difficulty hearing the end of the word (-енья)   |
|   | числого вроженья  | Difficulty in pronouncing and writing the adjective (числого instead of числового); between two hard consonants (в, р), the vowel sound [ы] is not heard, contraction occurs   |
|   | числагова вражение  | Difficulty in pronunciation and spelling of the adjective (числого instead of числового); between two hard consonants (в, р), the vowel sound [ы] is not heard, contraction occurs   |
| возведение в степень                      | взведение в степень   | Contraction; between two hard consonants (в, з), the vowel sound [ы] is not present  |
|   | васбидения степин,  | Misunderstanding of consonants (в, б) that are close in spelling; there is no preposition; there is no soft sign at the end of the word, there is no distinction between hard and soft consonants (н/нь)   |
| делится нацело                            | 1) делится насело, 2) делетьсонатсое, 3) делетцанадсова, 4) делетьсянадсоло | Misunderstanding of hissing consonants (с/ц); 2,3,4) Difficulty in defining the boundaries of a word (instead of two words, students write one word); difficulty in hearing and understanding words  |
| арифметические                            | архимитические  | Difficulty in perceiving sounds by ear, misunderstanding consonants (ф/х); incorrect order of letters (архи-/ариф-)  |
| арифметические действия                   | орифметический действия   | Misunderstanding of vowels in post-stressed syllables (-ий/-ие): difficulty in perceiving the duration of sounds (-ие/-ий); the desire to end the adjective with a consonant; misunderstanding of gender and number aspects of adjectives (masculine and neuter)   |

End of Table 1

| Words and phrases dictated by the teacher | Words and phrases written by the student | Notes   |
|---|--|---|
| действие                                  | действие                                 | Misunderstanding of vowels at the end of words (о/ие), contraction occurs.  |
| билет на метро                            | вилентна метро                           | Misunderstanding of consonants (б/в, т/нт); difficulty in determining word boundaries (the preposition НА is written together with the previous word and has become a prefix)   |
| аспирант                                  | аспираметь                               | Misunderstanding of sonorous consonants (н/м); between two consonants, there is a vowel (е), a tendency to open a closed syllable; misunderstanding of hard and soft consonants (т/ть)  |
| записывают                                | записуют                                 | Misunderstanding of consonants in the middle of a word (there is no suffix -ыва-)   |
| с помощью цифр                            | с помуши сифров                          | Misunderstanding of hissing consonants (ц/с), hard and soft (ш/щ), misunderstanding of vowels (о/у), misunderstanding of consonants at the end of words (Ø /-ов).   |
| скобки                                    | скопкы                                   | Misunderstanding of hard and soft consonants (кы/-ки) at the end of a word. Phonetic writing (they write what they hear)  |
| пример                                    | примерь                                  | Misunderstanding of hard and soft consonants (р/рь), at the end of a word the student writes a soft sign; the noun is changed to a verb in the imperative   |
| брат                                      | брать                                    | Misunderstanding of hard and soft consonants (т/ть) at the end of the word, the noun is changed into a verb in indefinite form  |
| вот                                       | воть                                     | Misunderstanding of hard and soft consonants (т/ть) at the end of a word  |
| юрист                                     | юристь                                   | Misunderstanding of hard and soft consonants (т/ть) at the end of a word  |
| час                                       | чась                                     | Misunderstanding of hard and soft consonants (с/сь), a soft sign is written at the end of the word  |
| семь                                      | сем                                      | Misunderstanding of hard and soft consonants (м/мь), no soft sign at the end of the numeral   |
| цифры                                     | цифри                                    | Misunderstanding of hard and soft consonants (ры/ри), there is no sound [ы] in the native language  |
| чей                                       | чень                                     | Misunderstanding of voiced consonant [й'], replacement with a more understandable sonorant [н'], both sounds are sonorant and soft  |
| цифры обозначают числа.                   | цифри обозначает числам.                 | There are misunderstandings of hard and soft consonants (с/си, р/ри), misunderstanding of (ц/с); there is no sound [ы] in the native language. The subject “цифры” (plural) does not agree with the predicate “обозначает” (singular). Error at the end of the word: instead of “числа” there is “числам”, the consonant “М” is added |
| меньше, чем                               | менши чем                                | Misunderstanding of hard and soft consonants (н/нь), ignoring punctuation, no comma (before conjunction – чем)  |
| дробь                                     | дрок                                     | Misunderstanding hard and soft consonants (п/пъ), replacing a voiced consonant with a voiceless velar stop ([п'] / [к])   |



Continuation of Table 1

| Words and phrases dictated by the teacher<br>Words and phrases | written by the student | Notes   |
|--|------------------------|---|
| простая дробь  | прастой дрок           | Incorrect use of the gender of the noun due to the peculiarities of Turkic languages; misunderstanding of consonants at the end of a noun (дробь)                                   |
| обыкновенная дробь   | абекванийе             | Incorrect use of the gender of a noun. There is no category of gender in the native language  |
| равен  | правин                 | To pronounce a voiced [p], a voiceless [п] is pronounced before it: it is easier to pronounce it that way   |
| показатель степени   | паказатил степение     | Misunderstanding of hard and soft consonants (л/ль); difficulty writing vowels at the end of words  |
| разные знаки   | разназнаки             | Difficulty in determining the boundaries of a word when two words are merged into one; the ending of the first word is not present  |
| тысяча сто два   | тичисит сто два        | 1) One-word numerals are written correctly (сто два);<br>2) a three-syllable word (тысяча) is perceived with difficulty;<br>3) hissing (ч,с) are not distinguished in pronunciation |
| тысяча двадцать  | тесичь дватсот         | 1) misunderstanding of the gender of the noun (тысяча – тысячØ);<br>2) incorrect use of the letter order (-сот instead of -дцать)   |
| семьсот пятьдесят девять                                       | пянтст семсот девит    | 1) incorrect word order; 2) contraction in numeral word (пятьдесят. -тст-); 3) wrong understanding of hard and soft consonants (т/ть, м/мь)   |
| одинаковые знаки   | одиннаковое знаки      | 1) misunderstanding of the pronunciation length of the double consonant (-нн-); 2) the adjective does not agree with the noun.  |

As one can see, spelling errors occur for a variety of reasons.

To improve the educational process in mathematics for students studying in a non-native language at a technical university, each teacher of Russian as a foreign language finds unique working methods to help students effectively study topics that are difficult for them [12, 13]. In mathematics classes, group work is actively used, which allows students to quickly and effectively engage in the work, try to understand the topic, and retell it to their classmates so that everyone understands [8]. It is especially important to plan the work of subject teachers so that it is possible to teach international students in close connection with teachers of Russian as a foreign language.

For effective learning and ensuring the assimilation of terms and vocabulary, special work is regularly carried out, which includes a large number of different types of tasks on various rules, for example, matching a noun to an adjective in gender, case, number (gender, number, case of nouns and adjectives, pronunciation standards). A dictation is then given again, and the level of knowledge of the terms is determined. Again, a pattern emerges – the more detailed and careful the vocabulary work, the fewer errors we find in the dictation text.

Listening comprehension is usually done in two phases to check and develop spelling skills. After the first reading of the dictation, the teacher checks, analyzes, and corrects the errors to avoid them in the future. Simple repetitions solve the spelling problem. Some students take longer to master difficult words. They need to repeat the vocabulary regularly and return to it from time to time during the semester.

Another option is possible. Give the words and speech constructions needed for the work in advance (with translation or with the task of translating new words independently) before class. As experience shows, this method will significantly facilitate and accelerate the vocabulary acquisition necessary for studying the subject. The linguistic abilities of each individual are different, and each student can choose an option for themselves.

We believe that the most effective option for teaching international students lies in the community of teachers of Russian as a foreign language and teachers of mathematics, physics, chemistry, biology, and geography.

Syntactic constructions from the scientific language style course must be memorized and edited before they can be used in class. Then students can approach the new topic prepared.

All this makes it possible to master scientific terminology in practical Russian classes, the language of physics, chemistry, and mathematics. However, when several subject disciplines are taught, a course requires a great amount of both time and mental effort from international students to effectively master, for example, mathematics, despite good mathematical skills and previous success in mastering the school curriculum. In addition, the oral speech of subject teachers is characterized by individual features. Therefore, it is necessary to adhere to uniform specifications, select tasks according to the lesson's objectives, make an effort to speak clearly and slowly, and be ready to repeat words several times.

### References

1. JD, Dysthe O., Mjelstad S. New and changing teacher roles in higher education in a digital age. *Educational Technology & Society*. 2007;10 (1):40-51.
2. Stepanenko R.F., Ainoutdinova I.N., Krotkova N.V. Distance and online learning solutions in the context of modern legal educational policy. *Cuestiones Políticas*. 2020; 38 (67 Especial): 239-250.
3. Baumann U., Shelley M., Murphy L., White C. New challenges, the role of the tutor in the teaching of languages at a distance. *Distances et savoirs*. 2008; 6 (3): 365-392.
4. Khuziakhmetov A.N., Ainoutdinova I.N., Tregubova T.M. Advantages and disadvantages of distance education for university students in Russia. *Modern Journal of Language Teaching Methods*. 2017; 7 (9/2): 431-444.
5. Mikhalyova E.V., Petrovskaya T.S. Obucheniye russkomu yazyku kak inostrannomu v TPU: metodologiya i tekhnologii [Teaching Russian as a foreign language at TPU: methodology and technologies]. *Problemy opisaniya i prepodavaniya russkogo yazyka kak inostrannogo v tret'em tysyacheletii: sostoyaniye i perspektivy razvitiya. Materialy mezhdunarodnogo regional'nogo foruma uchenykh i prepodavateley-rusistov po problemam funkcionirovaniya i prepodavaniya russkogo yazyka v stranakh Evropy (13–14 aprelya 2007 g.)* [Issues of describing and teaching Russian as a foreign language in the third millennium: state and development prospects. Materials of the international regional forum of Russian scholars and teachers of Russian on the problems of the functioning and teaching of the Russian language in European countries (April 13–14, 2007)]. Berlin. Pp. 70–72 (in Russian).
6. Yanushchik O.V. Puti uluchsheniya organizatsii uchebnogo protsessa po matematike studentov, obuchayushchikhsya na nerodnom yazyke v tekhnicheskom vuze [Ways to improve the organization of the educational process of foreign students in a Russian university]. *Mezhdunarodnyy zhurnal prikladnykh i fundamental'nykh issledovaniy – International Journal of Applied and Fundamental Research*, 2015, no. 5-4, pp. 576–578 (in Russian). URL: <http://applied-research.ru/ru/article/view?id=7170> (accessed 17 January 2022).
7. Glazyrina E.D., Efremova O.N., Nguen T. Puti uluchsheniya organizatsii uchebnogo protsessa inostrannykh studentov v rossiyskom vuze [Ways to improve the organization of the educational process of foreign students in a Russian university]. *Sovremennye problemy nauki i obrazovaniya – Modern problems of science and education*, 2014, no. 3, pp. 1–7 (in Russian). URL: <http://www.science-education.ru/117-13325> (accessed 18 January 2022).
8. Efremova O.N., Glazyrina E.D. Osobennosti prepodavaniya matematiki inostrannym slushatelyam, obuchayushchimsya na nerodnom yazyke [Features of teaching mathematics to foreign students studying in a foreign language]. *Uspekhi sovremennogo estestvoznaniya – Advances in Current Natural Sciences*, 2015, no. 3, pp. 177–180 (in Russian). URL: <http://natural-sciences.ru/ru/article/view?id=34759> (accessed 17 January 2022).

9. Efremova O.N., Glazyrina E.D., Podberezina E.I. Spetsifika prepodavaniya matematiki inostrannym slushatelyam podgotovitel'nogo otdeleniya [Specificity of teaching mathematics to foreign students of the preparatory department]. *Sovremennye problemy nauki i obrazovaniya – Modern problems of science and education*, 2014, no. 2 (in Russian). URL: <http://www.science-education.ru/116-12182> (accessed 18 January 2022).
10. Furmanova V.P. Mezhkulturnaya kommunikatsiya kak metodologiya inoyazychnogo obrazovaniya [Intercultural communication as a methodology of international language education]. *Yazyk i kultura*, 2021, no. 56, pp. 254–272 (in Russian). DOI: 10.17223/19996195/56/15
11. Fetisova E.V. Osobennosti prepodavaniya matematiki inostrannym studentam, obuchayushchimsya na rusском yazyke [Features of teaching mathematics to foreign students studying in the Russian language]. *Vestnik Moskovskogo universiteta. Seriya Pedagogicheskoye obrazovaniye – Bulletin of Moscow University. Series Teacher Education*, 2011, no. 1, pp. 71–75 (in Russian).
12. Imas O.N. Lingvisticheskiye osobennosti izucheniya matematiki inostrannymi studentami [Linguistic features of studying mathematics by foreign students]. *Sovremennye problemy nauki i obrazovaniya – Modern problems of science and education*, 2012, no. 6 (in Russian). URL: <http://science-education.ru/ru/article/view?id=7818> (accessed 17 January 2022).
13. Shipilova (Lomakina) S.S. Ispol'zovaniye igrovyykh tekhnologiy pri proverke znaniy inostrannykh studentov po razdelam distsipliny “Vysshaya matematika” [The use of gaming technologies when checking the knowledge of foreign students in the discipline sections “Higher mathematics”]. *Sovremennye problemy nauki i obrazovaniya – Modern problems of science and education*, 2014, no. 3 (in Russian). URL: <http://www.science-education.ru/117-13293> (accessed 18 January 2022).
14. Pasaita T.N. Obucheniye konspektirovaniyu inostrannykh uchashchikhsya na zanyatiyakh po yazyku spetsial'nosti [Teaching note-taking for foreign students in the study of the language of the specialty]. *Materialy VII Mezhdunarodnoy konferentsii “Mezhdunarodnoye sotrudnichestvo v oblasti inzhenerenogo obrazovaniya” (Sankt-Peterburg, Rossiya 2–4 iyulya 2012)* [Proceedings of the VII International Conference “International Cooperation in Engineering Education” (Saint Petersburg, Russia, 2–4 July 2012)]. St. Petersburg, 2012. Pp. 85–92 (in Russian).
15. Il'chenko A.N., Solon B.Ya. Matematicheskaya kul'tura – osnova professional'noy podgotovki spetsialista dlya innovatsionnoy ekonomiki [Mathematical culture is the basis of professional training of a specialist for an innovative economy]. *Sovremennye problemy nauki i obrazovaniya – Modern problems of science and education*, 2010, no. 2, pp. 119–129 (in Russian).
16. Kiykova N.Yu. Sinergeticheskiye osnovaniya modeli matematicheskoy kul'tury budushchego menedzhera [Synergetic foundations of the model of mathematical culture of a future manager]. *Fundamental'nye issledovaniya – Fundamental research*, 2012, no. 3, pp. 38–43 (in Russian).
12. Kashkan G.V., Provalova N.V., Shakhova N.B. Realizatsiya mezhpredmetnykh svyazey pri obuchenii inostrannykh grazhdan [Implementation of interdisciplinary relations in teaching foreign citizens]. *Sovremennye problemy nauki i obrazovaniya – Modern Problems of Science and Education*, 2011, no. 6 (in Russian). URL: <http://www.science-education.ru/100-5073> (accessed 18 January 2022).

**Yaritsa L.I.**, Candidate of Philological Sciences, Associate Professor, Tomsk State University of Architecture and Building (pl. Solyanaya, 3, Tomsk, Russian Federation, 634061).  
E-mail: [liya446@mail.ru](mailto:liya446@mail.ru)

**Narmandakh B.**, Representative office of Rossotrudnichestvo in Mongolia, Russian House in Ulanbatar (st. Tokyo 39 Bayanzurkh district, 12 microdistrict, Ulanbator, Mongolia).  
E-mail: [btstsg@mail.ru](mailto:btstsg@mail.ru)