

Working with Scientific Text in Russian Lessons as a Basis for Forming Communicative Competence Students

Khasanov Navruz Barotovich, Alybayeva Toktozhan Kochkorovna

Kyrgyz State Technical University Named after I. Razzakova, Bishkek, Kyrgyz Republic
Email: Navruz_1960@mail.ru, alybaeva.t@bk.ru

How to cite this paper: Barotovich, K. N., & Kochkorovna, A. T. (2024). Working with Scientific Text in Russian Lessons as a Basis for Forming Communicative Competence Students. *Open Journal of Social Sciences*, 12, 514-525.

<https://doi.org/10.4236/jss.2024.124035>

Received: July 20, 2023

Accepted: April 25, 2024

Published: April 28, 2024

Copyright © 2024 by author(s) and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

Abstract

The article is devoted to the problems of the development of Russian speech among bachelor students of a technical university in the practical course of the Russian language, which, according to the author of the study, helps students in their professional development as a competence specialist. The purpose of the article is to show the common problems that bachelor students of technical universities encounter when working on the educational text, as well as to propose a methodology for working with scientific and educational text, which contributes to the formation of communication skills and abilities. The results of the survey of the experimental and control groups showed the ambiguity of students' opinions regarding the practical application of the acquired knowledge at the university. An analysis of the results of the experiment shows that the system of exercises proposed by the author helps students to become involved in the learning process, to motivate them to master the language being studied. In conclusion, the author claims that the system of exercises he proposes and work on texts in the specialty helps students in mastering special vocabulary. Conclusions on the conducted experimental work indicate the possibility of working on texts in the specialty at a technical university. The data presented in the study gives grounds for the widespread introduction of such forms of work on the text in the practical course of the Russian language at a technical university.

Keywords

Practical Course of the Russian Language, Text, Pre-Text Tasks, Post-Text Tasks, Specialty, Competence, Communicative Tasks, Professional Speech, Training Exercises, Linked Text

1. Introduction

At present, the communicative competence of graduates of technical universities is considered in line with the solution of production problems. Consequently, a university graduate after graduating from a higher educational institution should be not only a specialist with good knowledge, but also capable of professional communicative competence, both in his native language and in Russian.

These tasks require the teacher of the Russian language to search for new ideas, techniques, methods in teaching or modernizing traditional methods of work.

There are several definitions of this term in the methodological literature. In our opinion, the most accurate definition is given by M. R. Lvov: “Communicative competence (CC) is a term denoting knowledge of a language (native and non-native), its phonetics, vocabulary, grammar, stylistics, speech culture, possession of these language tools and speech mechanisms—speaking, listening, reading, writing—within social, professional, cultural needs of a person. CC is one of the most important characteristics of a linguistic personality. CC is acquired as a result of natural speech activity and as a result of special training” (Lvov, 1999: pp. 92-93).

No less interesting is the definition given by F. M. Litvinenko, who argued that “the theoretical foundation of communicative competence” is formed by communicatively significant knowledge about the language system, about speech concepts, about the types of speech activity, about the features of the functioning of language units in speech, and the practical base is made up of “speech skills in receptive (listening) and reading) and productive (speaking and writing) types of speech activity” (Litvinenko, 2009).

A scientific educational text, unlike an artistic text, is intended for a future specialist who knows only the basics of scientific knowledge. The material for such a text is usually the information needed to obtain a specialty, and is built on the principle “from smallest to largest”. To make information more accessible to the understanding of a non-specialist allows “the use of a large number of examples, tables, diagrams, illustrations, comparisons” (Zaretskaya, 2002).

When reading, bachelor students of a technical university have some difficulties with scientific texts, since they do not yet know a certain structure of engineering texts. We agree with the opinion of I. B. Avdeeva, who states “the architectonics of an engineering text/discourse, including a) the concept of an object/classification of objects; b) quantitative and qualitative characteristics of objects; c) problem statement; d) task formulation; e) problem solving; f) evaluation of the results of the solution” (Avdeeva, 2006: p. 17).

As a result of familiarization of students with scientific and educational texts, the following communication skills and abilities are formed, such as: a) “evaluating the information of the text according to its significance for the disclosure of the topic (main/secondary); b) drawing up a plan of the text, tables or diagrams, concisely representing its content” (Parochkina & Zhileikina, 2018: pp.

34-39), and the second “determine the structural-logical types of text.

The work on the scientific and educational text is built from three stages:

1) The first stage is the formation of lexical and grammatical skills. The material of the text is “the vocabulary and grammar of the selected text, since the work on the formation of the above skills is carried out even before reading the text” (Parochkina & Zhileikina, 2018: pp. 34-39).

2) At the text stage of working with the text, communication skills are improved: speech reproduction, interviewing skill, questioning, skills that ensure the correct language design;

3) Post-text stage—“the stage of development of speech skills” (Chesnokova, 2015: p. 101), which includes tasks (communicative situations) that form such skills as: “initiating interaction with a classmate, independently making contact with the interlocutor, observing the culture of communication, showing tolerance and respect for the interlocutor, arguing one’s opinion” (Parochkina & Safina, 2018: pp. 31-32).

Foreign and domestic scientists devoted their works to the formation of speech competence. These are the works of linguists and philologists: Shansky (1981), Zaretskaya (2002), Pocheptsov (2001), and others Winter (2012), Khutorskoy (2013) and others analyze the problems of the competency-based approach to the formation of competence. Kyrgyz scientists also devoted their works to the basics of the development of speech competence: Dobaev (2020), Manlikova (2012), Sydykbaeva (2023), Khasanov (2021) and others. Their studies focus on the development of professional speech of future specialists, and consider it as a methodological problem requiring attention.

The purpose of the work is to show the common problems that bachelor students of technical universities encounter in the course of working on the educational text, as well as to propose a methodology for working with scientific and educational text, which contributes to the formation of communication skills and abilities.

The formation of skills and abilities of professional speech is provided by a system of exercises and tasks that considers the semantic meaning of the lexeme, its form and compatibility.

2. Research Methods

Conducted experimental work, the purpose of which was to apply methods for the assimilation of lexical material and the development of professional speech of bachelor students of a technical university. The main objectives of these works were to control the level of proficiency in students’ speech, vocabulary and its application in practice.

Analysis of linguistic, didactic and methodological literature on the research topic; analysis of existing programs and educational and methodological complexes; monitoring the dynamics of speech formation; conducting a pedagogical experiment; quantitative and qualitative analysis of students’ answers.

During the experimental work, students were asked to take a short survey. This form of work helped us to identify and evaluate the possibilities of the lesson and served as motivation in working on the text in the specialty. The survey took place in two forms: off-line and online.

The questions for the survey were the same for everyone, and the survey itself was conducted in an anonymous form, and this form of its conduct did not affect its results.

3. Statement of a Question

Stage I. Pre-Text Lexical Work

Sub-stage—determination of the meanings of terminated phrases.

Before starting to read the text at the level of understanding, the teacher needs to carry out pre-text work:

- a) explain the meaning of all terminating phrases, writing them down on the board and placing stress in each word;
- b) invite students to “discuss” these phrases, indicating in what situations they can be used. For example, the phrase improve the quality of building materials may come across when listening to a lecture on building materials; when conducting an experiment in the laboratory; in industrial practice, etc.
- c) choose, if possible, a synonym for one of the words in a terminological phrase, for example, *to be located in a room*, *to be indoors*, *to be indoors*.

Stage II. Lexico-Grammatic Work

- 1) sub-stage—explanation of the introduced grammatical construction;
- 2) sub-stage—minimization of educational grammatical material;
- 3) sub-stage—a system of training exercises for the structure under study.

The volume of sub-stages 1 and 2 is determined by the teacher himself, depending on the degree of preparedness of the students.

- 4) sub-stage—the system of training exercises is based on the close connection of special vocabulary with the studied grammatical topic. Here, special attention should be paid to the introduction of terminological phrases into the structure being studied, that is, all exercises should be based on the vocabulary being studied.

To generate a grammatically marked utterance, students must develop automated grammatical skills. This automatism is not developed immediately, it is achieved:

- a) by explaining the language material;
- b) observation of linguistic material in finished models;
- c) designing proposals according to samples;
- d) transformation of proposals;
- e) distribution of sentences with key words and phrases.

Stage III. Lexical Work on the Text

Sub-stage—a comprehensive explanation of the meanings of unfamiliar words.

The explanation of the meanings of unfamiliar words and phrases of general

colloquial vocabulary should begin with their preliminary recording on the board in the initial form, indicating the main grammatical features and setting the verbal stress. At the same time, the explanation of the meaning of unfamiliar words must be given in a complex, that is, using, where necessary, different methods and methods of explanation: selection of synonyms, antonyms, interpretation of the meaning, translation method or analysis of the word (morphological, etymological).

Stage IV. Reading and Listening of the Text

1st sub-stage—working out the technique of reading the text in compliance with the norms of Russian literary pronunciation; highlighting phrases or sentences with logical (semantic) stress.

2nd sub-stage—intonation of declarative, interrogative and incentive sentences.

3rd sub-stage—intonation of simple, complicated and complex sentences.

After working on finding out the meanings of terminological phrases, phrases of neutral vocabulary, the teacher starts reading the text. Reading the text should be organized methodically correctly:

- a) the text is read by the teacher in its entirety in compliance with the norms of Russian literary pronunciation and intonation of sentences;
- b) then the text in parts (paragraph, semantic part) is read by students;
- c) after that the text is read in its entirety.

It should be noted that learning to read the text correctly is a cross-cutting topic and continues throughout the work.

Stage V. Pre-Speech Tasks.

1st sub-stage—division of the text into semantic parts.

2nd sub-stage—finding an informative center in each semantic part.

3rd sub-stage—drawing up a retelling plan for the text;

4th sub-stage—narrowing the text;

5th subtopic—expansion of individual paragraphs of the text or the entire text.

Pre-speech tasks are designed to develop the skills and abilities of prepared monologue speech, and therefore it is necessary to teach students to highlight semantic segments in the text. Here it is appropriate to show the difference between the concepts of a paragraph and a semantic part, recalling that the semantic part can be wider than a paragraph. In each semantic part, an informative center should be distinguished, that is, phrases and sentences that carry the main semantic load. According to the found informative centers, students, under the guidance of a teacher, draw up a plan for retelling the text. Initially, it is advisable, in our opinion, to start the work on drawing up a plan by heading the semantic parts with interrogative sentences without a question word.

You can then teach students how to plan the retelling in the form of nominal sentences. According to the plan, the student retells the text. This retelling of the text involves learning to collapse someone else's statement, which is built on the basis of supporting phrases or selected informative centers.

An expanded retelling of the text or the entire text with information from ad-

ditional texts, from lectures and other sources.

Stage VI. Speech Tasks

1st sub-stage—building a statement by analogy with the content of the text, for example: describe the course of an experiment familiar to you.

Sub-stage 2—statements of an imitating nature, for example: you are the head of the group. Write a letter on behalf of the students of your group to the dean's office to send them to a labor camp on the shore of Issyk-Kul.

Sub-stage 3—preparation of a motivated monologue, for example, what business qualities should the head of the construction organization where you are going to work have.

In such tasks, the teacher needs to remind students about the formulas of speech etiquette that express their own attitude towards what is being said.

Tasks constructed in this way, in our opinion, will give students the opportunity to acquire the necessary vocabulary for special and general technical vocabulary and develop the ability to reproduce scientific speech not only in oral, but also in writing. Exercises of this nature are designed primarily for classroom work under the guidance of a teacher, while the implementation of some tasks involves independent creative work of students.

Below is an example of the above steps.

Speech topic: Traditions of our university.

Grammatical theme: *Constructions of simple, complicated and complex sentences expressing spatial relationships.*

Exercises

1) Read these phrases; tell me in what situations they can be used. If possible, continue them according to the model. **Sample:** Train engineers... Train engineers, doctors, teachers.

Studying in construction...

Tasks have grown...

Stay in a tight space...

Set up a laboratory...

Prepare seminar...

Work at a factory...

Need courage...

2) Read the sentences. Write out the words and phrases that answer the questions where, where, from where and verbally restore the text.

I study at the Kyrgyz State Technical University named after I. Razzakov. He entered the Faculty of Civil Engineering, but then transferred to the Faculty of Energy. This faculty is closer to the profile of my work. My parents live in Batken, and I live in the city of Kara Kul, I used to work on the construction of the Toktugul hydroelectric power station.

The city of Kara Kul is located in a narrow valley surrounded by high mountains. When you live in such an area and understand the meaning of the words: "Kyrgyzstan is a country of mountains". The abundant river Naryn, impregnable, gloomy mountains, and a difficult climate—cold in winter and hot in sum-

mer—all this tempers the people who live and work here. The climate itself brings up resilience in people.

In winter and summer, I come to Bishkek twice a year for an examination session; I go to lectures, pass tests and exams.

Soon I will graduate from the university, get a diploma of higher education and continue to work at the Toktogul hydroelectric power station.

Task 3. Make up and write down sentences with the following phrases:

Where, at our university; not far from the second hostel; in the middle of a spacious hall; next to the student canteen.

Where, to the meeting of the faculty; left for Russia; to a lecture by a famous scientist.

From the general meeting; from remote areas; due to a sharp turn.

Task 4. Make phrases with these verbs; think of and write down 6 sentences.

Where? a) to be, to be;

b) play, live, study, work;

c) meet, get together, wait, get acquainted.

Where? a) go, go, go, go;

b) sit down, lie down, put;

c) to hurry, to hurry, to be late, to be in time.

Where? a) come, get, pull out;

b) take, withdraw, receive;

c) pour out, pour out, throw away.

Task 5. Choose from the brackets the appropriate word in meaning and answer the questions (in writing).

(*Where? Where?*) Will you work after graduation?

(*Where? Where?*) Do you want to go to practice?

(*Where? Where?*) should your comrades come?

(*Where? Where?*) Has your curator returned?

(*Where? Where?*) send graduates of the SDM group?

(*Where? Where?*) Were there requests to send young specialists?

Task 6. Compose and write down 6 sentences using nouns with prepositions: at the lecture, at the lecture, from the lecture; at the meeting, at the meeting, from the meeting.

Task 7. Complete these sentences according to the model. Sample. The students came to where the cars were waiting for them. The students went where the dean was supposed to go. Students came to where they left for practice.

Installers came to where...

The installers went where...

The installers came from where...

Workers returned to where...

The workers returned to where...

The workers returned to where...

Forge of engineering personnel

The specialty of the builder is one of the most ancient on Earth. Industrial,

civil and agricultural construction is a huge and very complex branch of the national economy, armed with modern technology and advanced production methods. Specialists of this profile are graduating from the construction, civil engineering and architectural faculties of the Kyrgyz State Technical University named after I. Razzakov.

Kyrgyz State Technical University named after I. Razzakov (KSTU named after I. Razzakov) is the only higher technical educational institution in Kyrgyzstan, whose main task is to train highly qualified engineering personnel for the republic.

The university started small: it was created on the basis of the technical faculty of the Kyrgyz State University named after Zh. Balasagyn and in 1954 consisted of 2 faculties—energy-construction and mechanical-technological.

During the years of existence of the university, the departments have grown stronger. Many doctors and candidates of sciences.

Graduates of KSTU can be found in all corners of our republic. Many graduates work at large industrial enterprises and institutions of the city of Bishkek—at the factories of the city, at a large construction site and in a small village, where housing is just being laid, and in an industrial center, as a trust manager and an ordinary engineer. But wherever our graduates work, they everywhere carry out part of the common cause, create the future with their own hands.

Tasks:

- 1) Read the text. write down and explain unfamiliar words.
- 2) Divide the text into semantic parts, highlight the informative center in each segment, title them.
- 3) Retell the text according to the plan.
- 4) Tell me, what business qualities should a civil engineer have?
- 5) You are a graduate. What can you tell school graduates about your future profession as a civil engineer?
- 6) You are the head of the group; give a business description of two classmates (social status, education, academic performance, attitude to learning, participation in social work, relationships with the team, etc.)

4. Results and Discussions

The survey of students was conducted in groups ODD—1-2-19, AD—1-2-19, PGS—1-2-19, GTS—1-2-19, PIN—1-2-19, BIS—1-19 Kyrgyz State University of Construction, Transport and Architecture named after N. Isanov in the 2020-2021 academic year.

The methodology for conducting the experiment was not changed; it remained the same as in the ascertaining experiment. On the computer, students were presented with a text to read, to familiarize themselves with the content of the text, followed by a statement. Students were introduced to the rules of the work: after thirty minutes, students must turn off their computers. The first task was to reproduce the text. Sometimes, in case of difficulties, the teacher came to the aid

of the student, asking him leading questions about the text. The section included students from both the experimental and control groups. It was attended by 180 respondents from two institutions: the Institute of New Information Technologies and the Institute of Construction and Technology KGUSTA.

To determine the level of retelling of the text, we had three levels: high (completed), medium (completed partially) and low (did not complete the task). The results of the cut are presented in **Table 1**. Comparative level of formation of speech knowledge, skills and abilities of students in the Russian language in the conditions of experimental training.

As can be seen from the table below, determining the level of oral speech competence of students, the performance of students in the experimental groups is much higher than the knowledge of students from the control groups.

5. Discussion of Results

According to the first criterion for checking the text, namely: “correspondence of the statement to the topic, it turned out that students from the experimental groups in the amount of 105 people fully or partially coped with the task; and the indicator of students from the control groups—85 people coped completely or partially with the first task. 23 out of 250 students participating in the experiment (experimental group) did not cope with the task. This included those students who verbatim retold the beginning, middle or end of the text, in the control groups—37 people” (Khasanov, 2021: p. 216).

Perhaps, it is not worth dwelling on the analysis of the results for each parameter, since the effectiveness, the effectiveness of the work we have done is immediately obvious: “72.0% of the respondents showed good results (experimental group); and 16.6% is an indicator of the average level, here we included students who completed the task partially, which in total amounted to 88.6%” (Khasanov, 2021: p. 216).

This indicator is very important in the formation of students’ speech competence. Compared with the control group, the results in the EG are three times higher than their result.

According to the oral retelling of the text, it was found that “many students of the experimental groups have fully mastered the knowledge necessary to create a text according to its subject matter; mastered the knowledge of expressive means of oral speech; knowledge of the norms of the Russian literary language” (Khasanov, 2021: p. 216).

The data of the analysis of the oral statements of students showed that “the students of the experimental groups in the process of experimental work at a high level mastered and formed communicative skills and abilities, the ability to reveal the main theme and idea of the oral statement; to systematize the materials of oral presentations; create and invent texts on the proposed topics; the ability to use the expressive means of oral speech” (Khasanov, 2021: p. 216).

Table 1. Text: “Builder is a noble profession”.

	<i>Text: “Builder is a noble profession”</i>																	
	Intranseco (group ODD -1-2-19) (AD-1-2-19)						ISIT (PGS-1-2-19 group) (GTS -1-2-19)						INIT (group PIN-1-2-19) (BIS-1-19)					
	Number of students -81						Number of students -84						Number of students -85					
	performed correctly		fulfilled partially		Didn't complete the task		performed correctly		fulfilled partially		Didn't complete the task		performed correctly		fulfilled partially		Didn't complete the task	
	EG	CG	EG	CG	EG	CG	EG	CG	EG	CG	EG	CG	EG	CG	EG	CG	EG	CG
Relevance of the story to the topic	12	8	22	18	6	15	18	13	20	15	8	11	10	16	25	15	9	10
Completeness of text content transmission	11	12	18	21	7	12	10	15	15	21	7	14	10	14	13	18	12	18
Sequence of presentation	16	10	23	15	8	9	14	8	22	16	10	14	12	8	21	15	13	16
The use of various syntactic units in speech	9	11	28	12	9	12	16	13	23	15	8	9	14	8	22	16	12	13
Vocabulary richness	12	8	21	15	10	15	11	8	22	18	15	10	10	9	25	17	13	11

Working on the formation of students' speech competence in the conditions of experimental work, we paid special attention to improving pronunciation skills, due to the influence of Kyrgyz students on Russian speech.

This is evidenced by the results of the experimental work: “many students from the experimental groups of 84.0% showed high results in perfect speech in Russian, in the field of knowledge of the norms of the literary language, and students from the control groups showed only 36.7% at a high level (performed completely, partially performed)” (Khasanov, 2021: p. 216).

6. Conclusion

Thus, working with the proposed text made it possible to form the following communication skills:

- “Vocabulary skills;
- “skills of working with information, such as compression or transformation of individual semantic sections of the text;
- text reading skills;
- the skill of drawing up a plan of a denominative type” (Parochkina & Zhi-leikina, 2018: pp. 34-39);

Consequently, work with scientific and educational texts and a properly selected system of tasks for them contribute to the systematic formation of com-

petency-based speech skills and abilities among students of technical universities, which, as a result, allows solving communication problems in the professional field.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

- Avdeeva, I. B. (2006). *Linguistic and Didactic Concept of Teaching Professional Communication to Foreign Engineering Students: Author. diss. ... d. ped. n. M.*, 83 p. <http://www.dslib.net/teoria-vospitania/lingvodidakticheskaja-koncepcija-obuchenija-professionalnoj-kommunikacii-inostrannyh.html>
- Chesnokova, M. P. (2015). *Methods of Teaching Russian as a Foreign Language*.
- Dobaev, K. D. (2020). Innovative Technologies for the Formation of Students' Communicative Competence. *International Scientific Journal "Global Science and Innovations 2020: Central Asia"*, Nur-Sultan, June-July 2020, 125-128.
- Khasanov, N. B. (2021). *Formation of Speech Competence of Students of a Technical University in the Russian Language Classes*. 385 p. <https://vak.kg/avtoref/hasanov-navruz-barotovich-3/>
- Khutorskoy, A. V. (2013). *Competence Approach in Teaching. Scientific and Methodological Manual*. Institute of Human Education, 73 p. <https://khutorskoy.ru/books/2013/compet/index.htm>
- Litvinenko, F. M. (2009). *Communicative Competence as a Methodological Concept*. http://www.rusnauka.com/18_APSN_2014/Pedagogica/5_172983.doc.htm.
- Lvov, M. R. (1999). *Dictionary-Reference Book on the Methodology of Teaching the Russian Language: A Manual for Students of Pedagogical Universities and Colleges*. Publishing Center "Academy", 272 p. https://www.tspu.edu.ru/oldfiles/libserv/files/Artemenko_Teoria_i_metodika_obucheniya_russ_ayziku.pdf
- Manlikova, M. Kh. (2012). Methods of Teaching the Russian Language in the Kyrgyz School: Bullets of Formation and Development. *Vestnik KRSU*, 12, 137-141. <https://arch.kyrlibnet.kg/uploads/KRSUMANLIKOVAM.H.2012-5.pdf>
- Parochkina, M. M., & Safina, L. M. (2018). Peculiarities of Working with the Scientific Style of Speech in the Classes of Russian as a Foreign Language in the Vietnamese Audience. *Questions of Pedagogy*, 6, 29-35. <https://elibrary.ru/item.asp?id=35214496>
- Parochkina, M. M., & Zhileikina, A. V. (2018). *Work with a Scientific Text in Russian as a Foreign Language as a Basis for the Formation of Communicative Competence of Students of Technical Universities. Pedagogika. Questions of Theory and Practice*. Diploma, 34-39.
- Pocheptsov, G. G. (2001). *Theory of Communication*. Refl-Book. <https://mediaeducation.ucoz.ru/ld/1/138.-.-2001.pdf>
- Shansky, N. M. (1981). *Modern Russian Language. At 3 o'Clock. Textbook for Students of Ped Ints. Part I Vocabulary. Phraseology. Phonetics. Graphics and Spelling*. <https://urss.ru/cgi-bin/db.pl?lang=Ru&blang=ru&page=Book&id=250820>
- Sydykbaeva, M. M. (2023). Formation of Language Competencies of Students When Teaching Kyrgyz as a Second Language in Higher Educational Institutions in Kyrgyzstan.

Bulletin of Science and Practice, 3. https://www.bulletennauki.ru/gallery/88_40.pdf
<https://doi.org/10.33619/2414-2948/88/40>

Winter, I. A. (2012). *Communicative Competence: Psychological Characteristics. V Congress of the All-Russian Public Organization "Russian Psychological Society". Materials of the Congress Participants*. Russian Psychological Society.

http://www.rusreadorg.ru/ckeditor_assets/attachments/63/i_a_zymnaya_competency_and_competence.pdf

Zaretskaya, E. N. (2002). *Rhetoric: Theory and Practice of Speech Communication* (4th ed.). 480 p. <https://studfile.net/preview/1101605/>