

**SOME SPECIAL FEATURES OF THE WORK
ON FOREIGN LANGUAGE PROFESSIONAL TEXTS
IN TECHNICAL HIGHER EDUCATION INSTITUTIONS**

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***Abstract.** The article discusses the problem of teaching reading in non-linguistic universities and states that it is one of the most burning one. It also gives a brief description of some features of the work with professional literature in technical higher education institutions. Exercises and materials in the article demonstrate the variety of forms and methods of the work with professional texts in specialty in technical universities. The role of silent reading is described and different methods and techniques of the work when forming skills of productive reading and their improvement at all stages of learning a foreign language are considered. It is stated that reading is one of the most important types of communicative and cognitive activity. It*

also promotes mastering all aspects of foreign language and speech activity. Authors believe that by teaching students to read, one can develop the skills of recognizing and distinguishing language models in the text, gradually bringing these skills to automatism. Some of these issues are analysed both in theoretical and practical aspects.

Keywords: *non-linguistic university, professional foreign language texts, popular scientific literature, scientific and technical literature, texts in specialty, technical university, methods of working with texts, forms of reading, silent reading, ways of improving reading.*

In the process of learning a foreign language at a technical university, an important place is given to foreign language specialties and design and research activities of students, which aims to develop skills of independent acquisition of new knowledge, gathering the necessary scientific and technical information, drawing conclusions, drawing conclusions. All these skills cannot exist without a fundamental skill – the ability to read. [1]

The problem of teaching reading in non-linguistic specialties has been studied by many authors, [2] but its relevance is still lost today, due to the fact that the level of mastery of this skill by graduates of non-linguistic specialties, including technical, does not meet modern requirements, read in general, and even more professionally-oriented literature. At the same time, the teacher has practically no scientifically substantiated methods of working with scientific and technical literature, taking into account the specifics of interdisciplinary training of students of technical specialties. [3] In addition, the organization of the language training of students at a technical university is characterized by a lack of time to study the subject "Foreign language in the specialty", a low level of students' language competence and, as a result, low motivation when working with difficult to perceive scientific and technical texts. [4]

Some textbooks in foreign languages for higher professional education in technical universities are based on a text-centric approach. According to this approach, the text is the most important unit in language learning. [5] This is due to the unique capabilities of the text, which can act as a means and as a goal of learning a foreign language. As a means of learning the text can be a source of

necessary vocabulary, terminology, grammatical structures. The sample text can become an object for analysis, be a source of not only linguistic, but also socio-cultural, linguistic material. As a goal of learning, creating your own texts of various directions is one of the key indicators of the formation of communicative competence. [6] The lack of text-centrism in language learning can hinder the development of proper skills and abilities in terms of mastering the lexical richness of the language being studied.

When working with foreign language texts in non-linguistic universities, especially at the initial stage of learning, it is very important to adhere to the consistency and integrity of working methods. In general, the basic methods of working with foreign language professional texts at this stage remain unchanged, only the ratio of certain types of exercises changes, and the exercises themselves, for example, word formation, acquire a deeper and independent nature. [7] An increasing role is given to work with a dictionary and various reference books, and the predominant form of reading is silent reading, i.e. reading "in the mind". Along with this there is the problem of increasing reading speed.

Silent reading is a very difficult process. This form of reading differs from reading aloud in that the number and duration of pauses between words decreases, and the number of words that are perceived when reading aloud increases. The reason for the noticeable difference in the perception of the text when reading "in the mind" and aloud, some researchers see in the "slowness" and "complexity" of the pronunciation process.

The task of reading aloud is to understand the text by the listener, it is reading for others. Silent reading is always reading for yourself. [8] Reading to others should always be somewhat expressive and accessible to listeners. This greatly complicates the task: the reader needs not only to understand the author's thoughts, but also to find ways to best express them. The process of reading "in the mind" determines the need to understand the main idea of the author only for himself.

Thus, experts in the field of improving reading skills of students divide [9] readers into three categories:

1) motor reader – a reader that accompanies reading by the movement of speech organs;

2) auditory reader – a reader who reads without articulation of speech organs;

3) visual reader – a reader who understands phrases in general.

All this suggests that the speed of reading in a foreign language is affected not only by grammatical, lexical and other difficulties. Apparently, the individual characteristics of the reader affect the process of reading in a foreign language and slow down or speed it up.

The authors of the article often use the method of "perception training" in English classes with our VNTU students to teach the perception and reproduction of individual words and whole phrases. We believe that exercises to develop the speed of perception of words and phrases train the brain to accurately and directly comprehend what the eye covers. We recommend using the following exercises:

1) reversal – permutation of words in a phrase;

2) afterimage – instant reaction to the visual image and the next image.

Working on the development of self-reading skills in order to increase reading speed is one of the urgent tasks in non-linguistic universities. However, we realize that the main task in working on professional texts of varying complexity is the ability to extract the necessary information from them, as well as the ability to quickly determine what information can be gleaned from the text. Achieving this goal requires a balanced system of effective exercises.

At the initial stage of learning to read in technical universities remains relevant to work with the dictionary. Word formation exercises play a leading role in the system of exercises aimed at developing vocabulary skills. Speaking about the further development of work on the elements of word formation, we mean not only a deeper acquaintance with them, i.e. quantitative changes, but also a qualitatively different approach to this type of work, deepening it. If the school can only acquaint students with the meaning and origin of some prefixes and suffixes and fix them on exercises, then at the university such work should become permanent, and the process of creating a word from one root should be increasingly

revealed to students. Of course, such work requires training from the teacher and finding material that is presented in most textbooks with disparate examples and tasks.

Here are some types of word formation exercises:

- ✓ Write a few words from the dictionary with the specified suffix and give their meaning.
- ✓ Write a few words from the dictionary with the specified prefix and give their meaning.
- ✓ Write words with this prefix.
- ✓ Write words with one specific prefix or suffix and determine its meaning.
- ✓ Write words with this suffix.
- ✓ Write derived words that have the same patterns. Give examples of other words built on the same model.

You can also offer exercises to choose the desired meaning of the word from a number of synonyms. This type of work is interesting in that the student is not limited to searching in the dictionary only the first, given, word, but must find the rest to make the right choice.

Here are some examples of such exercises:

a) adjectives:

- ✓ accessible (agreeing, yielding, easily reached);
- ✓ paradox (joke, kind of poetry, contradictory statement);

b) adverbs:

- ✓ currently (at the present time, swiftly, smoothly);
- ✓ inevitable (obscure, probable, unavoidable);

c) nouns:

- ✓ obvious (offensive, stubborn, evident);
- ✓ affect (cause a change, make a display of liking, wear out).

Exercises to compare the meanings of words are very helpful in this important work, too. For example: *accept – except; affect – effect; adapt – adopt; common –*

mutual; costume – custom; credible – creditable; farther – further; lead – led; later – latter.

To overcome grammar difficulties, students must develop certain skills and bring them to automatism. It is believed that by teaching students to read, one can develop the skills of recognizing and distinguishing language models in the text, gradually bringing these skills to automatism. [10]

When learning to read, it is important that students, in addition to the set of individual words that they first perceive visually, see the relationship between these words, i.e. the structure of the language model.

We offer receptive exercises that can be used when reading documentary and scientific literature.

1. Identification in the sentence model of already known lexical and grammatical elements.
2. Search for a group of words that are used to extend the model or its individual members.
3. Representation of sentences in the form of a model.
4. Determining the modification type of the model, etc.

The use of these and other exercises in popular science and scientific literature requires a well-thought-out list of language models, the assimilation and consolidation of which is provided by systematic daily work.

With regard to the importance of this type of work on popular science and scientific texts, it is advisable to take one of the models as a model and show how to work. For example, infinitive constructions that are widely used in modern English as well as in the scientific literature. Methods of working with infinitive constructions are to some extent typical for other verb constructions that are in the system of grammatical models.

The infinitive (to V), which stands at the beginning of the sentence, in English serves as a subject.

To live is to struggle.

In the Ukrainian language it corresponds to a verb in the indefinite form (1) or a noun (2).

(1) *Жити* означає боротися. (2) *Життя* – це боротьба.

The infinitive or infinitive group can stand at the beginning of the sentence and occupy in the sentence not the first place, but zero. An infinitive or infinitive group that ranks fourth or ninth is a circumstance of purpose or cause. In the Ukrainian language infinitive groups correspond to subordinate clauses with conjunctions: *to*, *in order to*.

To measure volumes we must know the dimensions of a body.

Щоб виміряти об'єм, ми повинні знати розміри тіла.

This is expressed by the following formula:

$$T_0 + V_0 + \dots + 1 + 2 + \dots$$

So, we see one of the infinitive models, represented by symbols, which are dominated by digital signs. It looks very logical in receptive models, as in this case much attention is paid to the place occupied by the grammatical form in the sentence, and digital symbols emphasize this again. In addition, it is easy to use because it is subjected to the laws of logic. Based on this, if necessary, it can be used to transmit a certain part of the text.

But we believe that in the early stages, these symbols can be an additional burden for students who already need to memorize many formulas from other subjects. It is essential that students understand the essence of the model, its structure and semantics, and this does not require symbolism.

For example, the sentence

He has a difficult task to perform

can be represented by the following model:

Subject + predicate + adverb (noun) + definition (infinitive with *to*)

Or with the symbolism $1 + 2 + 3n + to V$, where numbers and letters have the following meanings:

1 – subject, 2 – predicate, 3 – adverb (noun), to V – infinitive.

No matter what way the models are represented, it is important that students, having chosen similar models several times in the exercise, can find them accurately and quickly in any sentence, and that they remember that the infinitive after the noun serves as a definition and means action planned for the future.

We will show it on constructions with infinitives. Examples are taken from the analysed samples of popular science literature.

1. Highlight the model in the following sentences:

a) It is possible to see those giant stars far away in space.

b) It is not possible to say how many stars there are in the system.

c) Is it possible to estimate the likelihood of life existing somewhere in the universe outside the solar system?

d) Some mistakes must have been made in assembling the parts of the machine.

e) Seeing in some respects is an art which must be learned.

2. Identify models for the functions performed by the infinitive:

a) Does not have a difficult task to perform.

b) The ancients thought the earth to be flat.

Exercises to identify and recognize models must first contain the same type of models to develop automation for their recognition, and only then, when such automation is developed, you can give different types of models.

The reading process also contributes to the development of an uninterrupted understanding of a foreign language, if the lexical and grammatical content of the text is mainly known to the student. [11] Note that in order to optimize uninterrupted understanding, it is necessary to read only silently, and not aloud, as well as in conditions of lack of time.

However, to accelerate the pace of reading, its special organization by the teacher is important, since the reading pace is individually chosen by the reader himself in accordance with the pace of his understanding and comprehension of the text by means of his native language. And if, when perceiving a foreign language oral speech, the required pace of understanding is set by the dynamics of the

sounding speech itself, exercises to stimulate the pace of reading should be performed under the guidance of a teacher, who limits the time for reading the text and then controls its understanding.

Methodically, exercises for such extreme reading can be performed several times, gradually reducing the time for reading texts, increasing their volume, and also complicating their subject and linguistic content.

Unfortunately, in the current reality, a critically short time is allocated to the English language course in the work programs of universities (in 2021, on average, 1.5 academic hours per week for a professional English course for 1-2 years of study and 1 lesson for 3-4 years training). The fact does not require any proof that this time is not enough to master the basic skills aimed at working with a foreign language, which are necessary for a future specialist. Therefore, most of the efforts to develop the necessary skills for working with scientific literature are directed to independent activities.

So we may say that higher professional education today is based on the provisions of the competence-based approach, which presupposes the placement of emphasis on the skills necessary for a graduate in the field of his professional activity. Thus, the main task of higher education is to train such a specialist who is able to easily navigate the rapidly updated scientific and technical information, as well as to solve the assigned tasks in a foreign language environment. So, the priority is professionally-oriented language teaching, that is, training that takes into account the professional specifics of graduates, which is especially important for future specialists in the rapidly developing field of information technology, who should always stay on the forefront, regularly reading publications with relevant research in the original.

The text on the specialty has been and remains the main source of information and acts as a standard of a holistic speech pattern. This speech pattern is embedded in the long-term memory of the trainee and, if necessary, can be used in whole or in parts during professional communication of the speakers. Therefore, it is very important to teach a student of a non-linguistic university to work with a written

source. When selecting texts for professionally oriented teaching of types of speech activity, the following principles should be taken into account: situational approach, authenticity, professional significance and information content.

In conclusion, it should be noted that this article raises only some issues of work with popular science and scientific literature in technical higher education institutions. The above types of exercises certainly do not exhaust the variety of forms and methods of work. Many issues are still awaiting further development, both theoretical and practical.

REFERENCES

1. Council of Europe (2001). Common European Framework of Reference for Languages: Learning, teaching, assessment. Cambridge: Cambridge University Press. Retrieved from www.coe.int/lang
2. Bgantseva, I. V., Prom, N. A., Yovanovich, T. G., Likhacheva, T. S., Toporkova, O.V., Vysotskaya, I.V., Alekseenko, N. V. & Litvinova, E.A. (2019). Methodological Compression in Foreign Language Teaching of Engineering Students. *Modern Journal of Language Teaching Methods*, 9(1), 649-657.
3. Stepanova, I., Ibrahimova, L., Nykyporets, S., & Derun, V. (2021). WORKING WITH FOREIGN LANGUAGE TEXTS ON A SPECIALTY IN NON-LINGUISTIC HIGHER EDUCATION INSTITUTIONS. *Grail-of-Science*, (10), 387-391. <https://doi.org/10.36074/grail-of-science.19.11.2021.077>.
4. Fanenshtel, N., & Skyba, K. (2020). English Vocabulary Development of Non-Linguistic Specialties Students using Mobile Application. *Postmodern Openings*, 11(2 Supl 1), 26-42. <https://doi.org/10.18662/po/11.2Sup1/177>.
5. Stepanova, I. & Nykyporets, S. (2021). Some functional-stylistic features of the modern scientific text. *Grail-of-Science*, (2-3), 338-340. <https://doi.org/10.36074/grail-of-science.02.04.2021.069>.
6. Kupchyk, L., & Litvinchuk, A. (2020). DIFFERENTIATED INSTRUCTION IN ENGLISH LEARNING, TEACHING AND ASSESSMENT IN NON-LANGUAGE

UNIVERSITIES. *Advanced Education*, 7(15), 89-96. <https://doi.org/10.20535/2410-8286.168585>.

7. Kapsargina, S & Shmeleva, Zhanna & Olentsova, J. (2020). Innovative Methods of Working with the Text in the Process of Teaching a Foreign Language in a Non-Linguistic University. <https://doi.org/10.2991/aebmr.k.200312.077>.

8. Silent reading. Retrieved from https://psychology.fandom.com/wiki/Silent_reading

9. Maria Jose Alvarez-Alonso, Cristina de-la-Peña¹, Zaira Ortega¹ & Ricardo Scott¹. (2021). Boys-Specific Text-Comprehension Enhancement With Dual Visual-Auditory Text Presentation Among 12-14 Years-Old Students. <https://doi.org/10.3389/fpsyg.2021.574685>

10. Sanford, A. K., Brown, J., & Turner, M. (2012). Enhancing Instruction for English Learners in Response to Intervention Systems: The PLUS Model. *Multiple Voices For Ethnically Diverse Exceptional Learners*, 13(1), 56-70.

11. Brunfaut, T., Kormos, J., Michel, M., & Ratajczak, M. (2021). Testing young foreign language learners' reading comprehension: Exploring the effects of working memory, grade level, and reading task. *Language Testing*, 38(3), 356-377. <https://doi.org/10.1177/0265532221991480>