

VARIETY OF EXERCISES IN TEACHING TRANSLATION OF SCIENTIFIC AND TECHNICAL TEXTS

(Recibido el 22-05-2017. Aprobado el 31-08-2017)

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Abstract. Relevance of the issue under study is due to the necessity of providing students of technical specialities (with low language level) with necessary translation skills. The purpose of the article is to develop a system of exercises for teaching scientific and technical translation for students of non-linguistic specialities in the program of continuing education “Translator in the sphere of professional communication”. The article outlines the opportunities how to use them in the teaching process. The leading approaches to the study are analyze and generalization of teaching experience of scientific and technical translation in Russian and foreign non-linguistic institutes of higher education, monitoring the activities of professional translators of scientific and technical texts, formation of methodical system of training when translating scientific and technical texts (from English into Russian). The results showed the absence of ideal teaching aids and special system of exercises that could be applied in preparation of translators in the field of “Information security”. The article may be useful for lecturers and for self-education of the general public.

Keywords: language, translation, linguistics, text, introduction, semantics, grammar.

1. INTRODUCTION

Development of scientific and technical progress along with the complication of the flow of technical information has caused increase in requirements for professional technical and scientific translation, thus denoting the need to find new approaches for its study. Improving of higher education covers a wide range of issues (Sadykova, Fattakhova, Mubarakshina, 2017, p. 213), in particular modernization of forms and methods of translation skills. Currently, despite the fact, that the question of development of methodology of teaching translation is not well developed and requires close attention and study, it is quite sharply raised (Aleksieva, 2001) (Komissarov, 1997) (Tyulenev, 2004). Theoretical didactics of translation develops rather intensively and “Due to such voluminous theoretical knowledge, methodological aids of a generalized theoretical nature are created. But, anyway, practical application of the didactic principles must always be ended in exercises, assignments, texts and other educational materials” (Tyulenev, 2004, p. 302). In conditions of technical specializations it is necessary to provide students with sufficiently low language level with a minimal baggage of translation skills that they could successfully apply in their professional activities (Baranova, & Valeev, 2013, p. 436).

The analysis of teaching aids on training in technical translation from a foreign language into Russian showed that some of them date back to the 1980s and their application is unacceptable, since science and technology have gone far ahead during this period; some are created focused on the training of professional translation activities (Gavrilenko, 2006), although they can be partially used at ordinary classes. Unfortunately, any of the teaching aids we studied, did not correspond to the content that we would like to apply to the teaching translation.

At present, speciality of “Information security” is increasingly in demand among entrants of Kazan Federal University. This fact made us consider one of the most developing and promising directions. It is possible to say with confidence that in the near future, information security will be actively introduced in various areas of technical knowledge. The base that must be laid at the end of such a course is minimum *minimorum* (Tyulenev, 2004, p. 305): firstly, knowledge about translation, translation activity and, secondly, translation skills. We will try

to allocate translation exercises by means of which we will achieve this goal.

2. METHODS

When writing this article we generalized the results of studies in the field of linguistics, theory and practice of translation of scientific and technical texts and foreign languages teaching methodology.

In the study of a subject of translation activity (scientific and technical texts) doctrines in various fields of linguistics (M.M. Bakhtin, A.A. Zalevskaya, S. Moirand, G. Rondeau, and others) and theory of translation (I.S. Aleksieva, L.S. Barkhudarov, V.N. Komissarov, L.K. Latyshev, C. Bédart, J. Delisle, D. Gile, etc.) were used.

To solve the tasks, the following methods of research were used:

– theoretical: synthesis and analysis of scientific data on the research problem (from the standpoint of pedagogy, theory of translation, psychology, psycholinguistics, didactics, etc.);

– empirical: study and generalization of teaching experience of scientific and technical translation in Russian and foreign non-linguistic institutes of higher education, monitoring the activities of professional translators of scientific and technical texts, conversations with them, their questioning; surveys of students enrolled in the program of continuing education “Translator in the sphere of professional communication”; formation of methodical system of training when translating scientific and technical texts (from English into Russian).

3. RESULTS

The system of exercises for teaching translation is a set of required groups and various types of exercises that are performed in a certain sequence and in sufficient quantity to form necessary translation skills. Teaching of translation in general and exercises in particular should take into account all translation features, including its features as process and as product of this process, respectively. The proposed exercises should form and develop skills both for the execution of the translation process and for the design of its product, i.e. text of the translation (Tyulenev, 2004, p. 302).

So far issues of creation of system of exercises and activities for teaching translation were not considered in detail, and were only advisory in nature and, in essence, considered overcoming separate translation difficulties. In other words, they were aimed at working out some methods of translation and contributed to the formation of translation competence only partly. Only during the last decade new tutorials appeared which aim was to develop special exercises for training of professional translators. However, these tutorials are intended for work at language faculties and can only be partially used in teaching translation to students of technical specialties.

Especially productive in this aspect of the formation of a full translation competence, we consider the tutorials "Technology of translation" by L.K. Latyshev (2000) and "Translation and abstracting" by N.N. Gavrilenko, (2006).

The tutorial "Technology of translation" is aimed at the formation of a base section of the translation competence as the basis of a translator's profession. It is built on the principle of relationship between a theoretical course of translation theory and practical training of translators, i.e. the system of exercises converts theoretical knowledge into practical skills. Based on the contents of the tutorial, it is possible to distinguish the following types of translation exercises: a) exercises aimed at the correct (from the point of view of norm and usage) linguistic form of the translated text; b) exercises aimed at the transfer of the content of the source text; c) exercises aimed at choosing the best variant of translation. These types of exercises can be used in teaching scientific and technical translation, especially if it a genre as an article.

Another strategy for developing the professional competence of a translator through a system of exercises and authentic texts was developed by N.N. Gavrilenko. Her system of exercises is attractive because it is focused on training of translators of scientific and technical texts from French into Russian, which corresponds to the purposes of our research, despite another foreign language. Pre-translation exercises include elements of text analysis, which is a prerequisite for adequate subsequent translation of a foreign text into the native language. These include the following: a) define a genre of a source text, recall its main features; b) determine semantic content of the text by its title; c) analyze the structure of the text (highlight introduction, main part, and conclusion); d) find in the text words connected to the culture of

the country, proper names, find their interpretation. According to scientific and technical texts N.N. Gavrilenko adds the following items: a) definition of scientific and technical field to which the information in the text refers to; b) definition of the main topic and subtopics of statement; c) author's personality; d) specification of the characteristics of the addressee; e) definition of a method of statement (deductive, inductive); f) definition of a way of statement (description, reasoning, narration and polemics); g) definition of the main and secondary information, etc. Exercises directed to overcoming grammatical difficulties include tasks on certain grammatical phenomena, the translation of which causes difficulties, and comments on the translation of a particular construction. Word formation exercises contain selection of synonyms, comparison of definitions and concepts, finding Russian equivalents, selection of the most appropriate meaning of polysemantic parts of speech. These tasks are quite traditional and worked out in many tutorials on translation, and they also could be called "classical exercises on development of translation skills" (Mubarakshina, Abdrakhmanova, Marsheva, & Peretochkina, 2017, p. 252)

These listed cycles of exercise are interconnected, and distributed by the principle of increase of difficulties: from exercises at the level of a word (term), word combination to exercises on translation at the level of a whole text, or a spoken message.

Stage 1. Pre-translation cycle of exercises. Acquaintance with the field of scientific and technical knowledge in the Russian language, formation of skills of pre-translation analysis.

Stage 2. Operational or translation cycle. Translation exercises are designed taking into account the specifics of scientific and technical texts in a foreign language.

Stage 3. Editing. Exercises are connected with formation of skills of editing own translated text, considering a factor of a "critical eye" and choice of the optimal translation solution.

4. DISCUSSION

Taking into account these cycles, we offer our contents of exercises, considering information security and scientific and technical texts in English.

Pre-translation cycle of exercises is divided into two groups.

The first group of exercises is directed to search information in Russian in the field of scientific and technical knowledge (information about information security on the Internet and library periodicals), and exercises in Russian and English, involving familiarization with special knowledge (terminology semantization). The following tasks were offered to students:

- 1) read the article from www.ru.Wikipedia.org about information security. Answer the questions on the article (on the meaning content);
- 2) give definitions of key Russian-language terms;
- 3) find a parallel article about information security on a similar English website;
- 4) translate unfamiliar terms using a dictionary. Guess international words and terms;
- 5) write out from the translated text terms related to the semantic field of the keyword, i.e. information security.

For the primary semantization of terms we use pre-translation exercises developed by L.K. Latyshev and G.M. Strelkovsky (Strelkovsky & Latyshev, 1980). The authors propose to demonstrate in the form of two schemes (in the Russian and foreign languages) a device, which will be discussed in the text for translation. The same concepts are marked on the schemes by one digit and students match new lexical units with Russian terms known to them. The next exercise within a preparatory stage involves selection of terms to the components indicated on the scheme. The secondary semantization of terms is associated with exercises on selection and formulation of definitions. Students are offered to match the list of terms with the corresponding definitions. Later an exercise on matching definitions can be performed as a home task. A teacher offers to work on the English website of free encyclopedia Wikipedia (<http://en.wikipedia.org>). Thus, besides independent passing of the stage of secondary semantization of terms, students develop translation skills, i.e. quick search of information from special sources.

It is known that success of a translator considerably depends on how well he knows the subject about which the original text is. As experience of work shows, students of technical faculties are in more favorable conditions in comparison with students-humanists. They already have an established conceptual framework of a particular field of

technical science in Russian, and therefore acquaintance with the subject of translation, as the first stage of translation activity, does not cause them much difficulty.

To the second group of pre-translation cycle we include exercises on translation text analysis in English:

- 1) read the text about new area of scientific and technical knowledge;
- 2) define a genre of this text, together with the teacher specify its main features;
- 3) try to determine its semantic contents by the heading of the text;
- 4) analyze the structure of the text (highlight introduction, main part, conclusion);
- 5) make a plan of the text, paying attention to the basic information;
- 6) choose your options for the title of the article;
- 7) find in the text words connected to the culture of the country, proper names. Find their interpretation;
- 8) discuss who the text might be addressed to (specification of characteristics of the addressee);
- 9) define a method of statement (deductive, inductive);
- 10) define a way of statement (description, reasoning, narration and polemics);
- 11) define the main and secondary information.

Operational (translation) cycle. Exercises of this cycle are divided into 2 groups.

Group 1: exercises on teaching translation of non-equivalent vocabulary: terminology, proper names and realia.

Group 2: exercises on removal of grammatical difficulties in translation.

Group 1 includes the following tasks: a) translation of non-equivalent vocabulary in various ways (transliteration, loan translation (calque), selection of adequate replacement, descriptive translation, notes-comments of a translator). Group 2 of the operational cycle includes such tasks as: a)

translation of constructions from the translated text with the most frequent grammatical difficulties of scientific and technical functional style (passive voice, impersonal sentences, past participle, etc.); b) translation of the specified paragraphs, containing various grammatical difficulties.

As experience at non-linguistic faculty shows, matching parallel texts is an effective tool for development of learners' corrective translation skills at the third stage of teaching (editing). We offer the following types of tasks.

1. Compare two or three variants of translation, which one, do you think, is more suitable, why?
2. In the wrong translation find standard mistakes in the use of the Russian language, correct them.
3. Compare your translation with the translation by a professional translator, analyze the differences.
4. Compare your translation with the translations by your groupmates, choose the best one, and give your reasons.
5. Find mistakes in the translation by your neighbor, classify them.

Doing the exercises of all the cycles mentioned above is vital for activating the future professional translators' brain working to make their speech exact and concrete, all this being very important for acquisition of translation skills by students of technical specialities (Makayev, Yakhin & Makayeva, 2017, p. 4797).

5. SUMMARY

Summing up the consideration of the system of exercises on teaching scientific and technical translation, we can draw the following conclusions:

- 1) system of exercises and sequence of various types of exercises depend on the stages and logic of work on translation;
- 2) system is divided into 3 cycles of exercises that are interconnected and interacting with each other: pre-translation, translation (or operational), editing;
- 3) exercises in each cycle are distributed with increasing difficulties: from the translation of separate words (terms) to the translation of word combinations, sentences, fragments and the whole text.

6. CONCLUSIONS

Students of technical specialities with weak language preparation should be provided with minimal baggage of translation skills during a short period of time, which they could successfully apply in their professional activity. The analysis of the educational and methodological literature on teaching technical translation from a foreign language into Russian showed that none of the examined teaching aids respond to the content that we would like to apply to the training translation to students of the speciality "Information security" at Kazan Federal University. In this connection, we have developed a system of exercises for teaching scientific and technical translation for students of non-linguistic specialities in the program of continuing education "Translator in the sphere of professional communication".

ACKNOWLEDGEMENTS

The work is performed according to the Russian Government Program of Competitive Growth of Kazan Federal University.

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