TEACHING TERMINOLOGY AND PROFESSIONAL VOCABULARY TRANSLATION TECHNIQUES AT GERMAN CLASSES

Yu.Yu. Lipatova[1], L.I. Gimatova[2], E.E. Chugunova[3]

[1, 2] Kazan (Volga Region) Federal University, Russia
[3] Kazan Research Technical University, Russia

Abstract

This study focuses on the difficulties of practical application of the German language in the conditions of modern professional communication. The system of higher education dictates the demand for the development and implementation of new methodological approaches and technologies that are effectively integrated into the process of teaching German in the training of specialists in the field of electric power. Against the background of the ever-increasing demand for electricity in the world, it is advisable to deepen knowledge in the field of electric power in order to expand and strengthen international cooperation in the social and industrial spheres. The authors come to the conclusion that the training should combine both an individual approach and a method of communicative orientation, which promotes the cooperation of students in the implementation of their creative projects, as well as in direct interaction with the teacher in the framework of teaching German as a foreign language. To solve their professional tasks effectively, a specialist in the field of electric power industry must have the necessary knowledge and skills of a general theoretical and applied nature. Consequently, an important role in the foreign language training of students, future engineers, electric power engineering, is given to the assimilation of professional vocabulary and electrical terminology.

Keywords: linguistics, communication, semantology, lexical-semantic variations, National Corpus of Russian, DWDS, Duden, linguoculture

1 INTRODUCTION

Knowledge of a foreign language is a compulsory component of the professional training of engineering and technical personnel of innovative Russia, therefore, foreign language training in the direction of "Electric Power Industry" is professionally oriented. The disciplines "Foreign language in the field of electric power industry" and "Foreign language in professional activity" are of particular importance. Although knowledge of German is a valuable skill in itself, but without knowledge of German electrical terminology, future engineers will hardly be able to understand professional vocabulary when communicating with colleagues from other countries. German in the field of electric power is significantly different from the traditional German language, which is basically called a "language within a language".

The purpose of this study is to reveal the content and methodological features of teaching professional communication, as well as to consider the specifics of teaching translation skills to students, future engineers in the field of electric power.

2 METHODOLOGY

The need to improve the effectiveness of professional communication skills formation in students of the electrical engineering profile in the German language teaching system has shown the consistency of the modeling method. Modeling in our study is the reproduction and reflection in the methodological model of the content, structure and features of teaching professional communication, the skills and abilities necessary for an electrical engineering specialist in his professional activity, and imitation of typical professional tasks, situations, business games, during which the student masters these skills and skills in the classroom. As part of the work on terminological vocabulary, the method of teaching interpretation and translation of specialized texts is also important.

3. RESULTS

The experience of conducting classes has shown that the pedagogical system of teaching professional communication is based on a number of principles of a general and private nature. General methodological principles include:

1. The principle of communication at the lesson brings the process of learning professional communication in German classes closer to the real process of professional communication. The topics of classes have a professional orientation (“Moderne Energiewirtschaft und ihre Zukunftsperspektiven ”, “Kraftwerke”, “ Erneuerbare Energien ”, „Energiewirtschaft Russlands“).

2. The principle of taking into consideration the native language allows you to take into account the peculiarities of the native language of students in the process of learning professional communication.

3. The principle of mastering and creating speech stereotypes when performing speech and conditional speech exercises.

4. DISCUSSION

Particular methodological principles include:

1. The principle of combined learning for all types of speech activity (Schriftlicher Ausdruck, Leseverstehen, Hörverstehen, Mündlicher Ausdruck), everyone alternately in different time periods.

2. The principle of oral advance, in other words, introduction, activation of lexical and grammatical material before working on a written translation of the text.

3. The principle of integrating knowledge from various academic disciplines, such as "German language and electric power industry", "History of the development of Russian and German electric power industry", etc.

In the organization of the pedagogical process, it is important, in addition to the above principles, to take into account its technological component. The latter is represented by the stages of the organization of the process of teaching professional communication in German classes (initial, basic, advanced); a complex of active forms, methods, techniques and tools that make up the reproducible core of the methodology of teaching professional communication, that is, the technology of the formation of skills and abilities.

When teaching German in the direction of "Electric Power Industry", general language and professional language training are carried out in a complex [1]. The content of the training from the very beginning involves reading authentic texts and using them as a means of teaching written and oral speech. The main problem faced by students of professionally-oriented vocabulary and its translation skills is that they are offered to master a sufficiently large number of terms in a short time, i.e. special vocabulary, to work through a lot of texts, to learn how to apply grammatical rules in professional vocabulary, and even to everything else, to understand the basics of electric power engineering, physics, since it is impossible to understand special literature without background knowledge.

But during the time allotted for studying a foreign language at a technical university, it is almost impossible to master all the necessary terminology. Therefore, it is very important to develop students' skills in working with both general and terminological dictionaries, glossaries, reference books on the specialty. It is also important to teach students some translation techniques that will be useful to students in order to eliminate difficulties in translating terminological vocabulary into their native language: 1) transcription – literal reproduction of the term of the target language; 2) transcription is the reproduction of the possible sound of phonemes of a foreign word (in our case, German lexical units); 3) descriptive translation is possible in situations where there is no indication in the dictionary of a direct correspondence to the term, therefore, it is necessary to use a description that will contribute to the accurate transmission of the meaning of the lexical

unit in a specific context; 4) calcification is a method of translating a foreign word by replacing its constituent components with their lexical correspondences in the target language. Each of the above methods has its disadvantages and advantages. Transliteration and transcription as translation methods are predominant in the transfer of the meaning of German-language terms into Russian. It should be noted that for more effective teaching of translation skills, it is necessary to teach students to pay attention to such lexical and semantic features of German engineering and electrical terminology as synonymy and antonymy.

The phenomenon of synonymy in the German terminology of the electric power industry is very widespread. The ability to build synonymous chains can help students quickly master the skills of translating a voluminous layer of technical terms.

The study of the actual material of one of the manuals intended for students of electrical engineering [2] showed that 80 terms, which is 70.1% of the total selected material, have synonymous series. This is due to the fact that, firstly, the terminology of the electric power industry is closely related to the daily life of a person, which implies the use of certain terms both as a common vocabulary and in the area we are studying; secondly, a significant number of terms are based on borrowings.

In order to make it easier for students to complete tasks for the use and translation of specialized texts, it is important to introduce them to one of the classifications of the sources of synonymous terms proposed by N. S. Sharafutdinova [3]. All vocabulary in the field of electric power engineering can be grouped and studied by future engineers according to the following classes:

1. The defining component of the term has synonyms (*der Werkstück – der Arbeitstück*, *die Glühlampe – die Glühbirne, das Meßgerät – das Meßinstrument, der Energiewandler – der Energiekonverter, die Energiewirtschaft – die Energietechnik, die Gesamtleistung – die Gesamtproduktivität, der Abhitzekesel – der Abgasekessel, der Brennstoff – der Treibstoff, das Dampfkraftwerk – das Dampfturbinenkraftwerk, das Meßverfahren – die Meßmethode, das Regelgerät – die Regeleinrichting)*;

2. Foreign language borrowing and national term (*die Erscheinung – der Phänomen, die Emission – der Ausstoß, das Verfahren – der Prozess)*;

3. Synonymous morphological means, such as suffixes and prefixes, which contribute to the creation of synonymous terms (*das Vorzeichen – das Zeichen, die Anwendung – die Verwendung, das Speicherkraftwerk – das Pumpschpeicherkraftwerk, die Strahlung – die Abstrahlung)*;

4. Multicomponent terminological combinations and complex terms create a synonymous series (*elektrische Energie – Strom*);

5. Different spelling of synonyms with their absolutely identical meanings (*die Angabe – die Daten, die Erhöhung – die Vergrößerung, die Erhaltung – die Bewahrung, die Erfahrung – der Versuch – das Experiment, die Nutzung – die Verwendung, der Zweck – das Ziel, die Ursache – der Grund, das Gerät – der Apparat, der Pol – die Elektrode, der Generator – die Lichtmaschine, die Erkenntnis – die Foschungsergebnis, die Schwingung – die Schwankung, die Eigenschaft – das Merkmal – das Kennzeichen, die Abszisse – die x-Koordinate, der Brutreaktor – der Brüter, der Wirkungsgrad – der Nutzeffekt, der Kessel – die Brennkammer, das Vorwärmen – die Vorheizung, der Draht – das Kabel*).

It should be noted that due to the social, professional, territorial and class division of speakers, there are several designations of the same phenomenon, subject, which are fixed in the dictionary as synonyms and can then be used directly in scientific texts as a term.

Another semantic phenomenon taking place in the German terminological field of electric power engineering is antonymy. L. L. Nelyubin notes that antonyms are words with opposite meanings [4]. V. P. Danilenko holds the opinion that "the vocabulary of the language of science is characterized by antonymy not less, but rather more than general literary, which is due to the reasons that lie in the nature of scientific concepts" [5]. The last definition of the concept of "antonymy" speaks in favor of the fact that in professional communication classes it is important to teach students the skills of ordering German terminological vocabulary into antonymic pairs. In the course of working with the material of the above-mentioned manual, we identified 30 terms of an antonymic nature, which is 26.3% of the total sample. As with synonyms, students are encouraged to rely on the classification proposed earlier to memorize them [3]. According to her, the terminological vocabulary was grouped according to the sources of the antonymic pairs:

1. Juxtaposition using paired polar prefixes: *die Zunahme – die Abnahme, der Aufbau – der Abbau.*

2. Opposition with the help of a negative particle: *der Drehstrom-Synchrongenerator - der Drehstrom-Asynchrongenerator, geladene Körper - ungeladene Körper.*

3. The defining component of the term has antonyms: *die Kurzwelle – die Langwelle, der Wechselstromkreis – der Gleichstromkreis, die Hochdruckturbine – die Niederdruckturbine.*

4. *The main component of the term has antonyms:der Elektronenmangel – der Elektronenüberschuss.*

5. Antonyms with different spellings: *die Erwärmung – die Abkühlung, die Verringerung – die Vergrößerung, die Zuführung – die Entziehung, die Linie – die Kurve, die Ebbe – die Flut, die Aktivität – die Passivität, der Dampfpunkt – der Eispunkt.*

In addition to the classification considered, it would be logical to teach students to divide antonyms according to their structural analysis: into single-root and multi-root. Heterogeneous antonyms are antonyms formed with the help of lexical means. Examples of such pairs of antonyms are: *die Erwärmung – die Abkühlung, die Verringerung – die Vergrößerung, die Zuführung – die Entziehung, die Linie – die Kurve, die Ebbe – die Flut, die Aktivität – die Passivität.*

Single-root antonyms are those antonyms whose antonymy occurs when suffixes or prefixes with the opposite meaning are attached to the same root. Also, the way of occurrence of antonymy here can be the addition of a prefix, which performs the function of giving the opposite meaning to the initial word*:der Elektronenmangel – der Elektronenüberschuss, die Zunahme – die Abnahme, die Kurzwelle – die Langwelle, der Wechselstromkreis – der Gleichstromkreis, der Aufbau – der Abbau, die Drehstrom-Synchrongenerator - die Drehstrom-Asynchrongenerator, die Hochdruckturbine – die Niederdruckturbine, geladene Körper - ungeladene Körper.*

To acquaint students with the phenomena of synonymy and antonymy in the field of electric power engineering is one of the main tasks when teaching to work with authentic texts. It is the knowledge of antonyms and synonyms that make it easier for Russian-speaking students to assimilate new terminological vocabulary. Independent work also comes to the rescue, when students not only read, translate, edit their translations for a month, but also work with electrical terminology, creatively performing the tasks set by the teacher.

5. CONCLUSIONS

In the presented study, the features of the combination and partly mutual integration of the methods of teaching interpretation and translation and the model of the application of the methodology of modeling German language teaching were described. According to the results of the conducted research, it can be stated with confidence that in the organization of the training session, the teacher should rely on the basic methodological principles, and during the training he can resort to a variety of methodological techniques and approaches to the introduction, development and consolidation of electrical vocabulary in German classes. The competence of the teacher plays an important role here. Students of the electrical engineering profile should be trained in the ability to apply various translation transformations, such as calculus, descriptive translation, transliteration and transcription. One of the most interesting and effective ways to memorize the German terminological vocabulary is the skill of building synonymic chains and antonymic pairs from a number of proposed terms.

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