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JĘZYK OBCY W KIERUNKU ZAWODOWYM – METODYCZNE ASPEKTY NAUCZANIA

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Adnotacja. Nauczanie języka technicznego staje się coraz bardziej istotne we współczesnym społeczeństwie europejskim, które charakteryzuje się „ruchami" różnego rodzaju, ale grupy studentów stają się coraz bardziej zróżnicowane, a nauczyciele, którzy zwykle nie są ekspertami w określonej dziedzinie, mają trudności z tworzeniem kursów dla studentów, ponieważ możliwości uczenia się lub doskonalenia zawodowego nie są powszechne. Istnieje wiele pytań, które pozostają otwarte lub częściowo ujawnione, a pojedyncza odpowiedź na nie nie zawsze jest możliwa, ale nadal chcielibyśmy spróbować przedstawić rozwiązanie takich problematycznych pytań. Chcemy pokazać, w jaki sposób i za pomocą jakich środków i narzędzi można opisać specjalistyczne języki oraz jaki może to mieć wpływ na nauczanie.
Słowa kluczowe: język techniczny; język do celów specjalnych; badanie LSP; nauczanie LSP; korpusy.

FOREIGN LANGUAGE FOR SPECIFIC PURPOSES: METHODOLOGICAL ASPECTS OF TEACHING

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Abstract. Teaching a technical language is becoming increasingly important in modern European society which is characterized by movements of various kinds. Besides, groups of students are becoming more differentiated, and teachers who are not usually experts in a particular field face difficulties when creating courses for students as opportunities for training and advanced training for teachers are limited. There are a lot of problems that remain open or partially analyzed, and there isn't just one way to solve them. But nevertheless we would like to try to present some solutions to these problematic issues and show how and with which linguistic means and instruments specialized languages can be described and what impact this can have on teaching.
Key words: technical language, languages for specific purposes, LSP research, LSP teaching, corpora.

ІНОЗЕМНА МОВА ПРОФЕСІЙНОГО СПРЯМУВАННЯ: МЕТОДИЧНІ АСПЕКТИ ВИКЛАДАННЯ

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Анотація. Викладання технічної мови стає дедалі актуальнішим у сучасному європейському суспільстві, що характеризується різними «рухами», проте групи студентів стають більш диференційованими, а викладачі, які зазвичай не є експертами в певній галузі, зазнають труднощів зі створенням курсів для студентів, оскільки можливості для навчання чи підвищення кваліфікації трапляються не часто. Є багато питань, які залишаються відкритими або частково розкритими, і єдина відповідь на них не завжди можлива, однак все одно варто спробувати представити вирішення таких проблемних питань. Необхідно показати, як саме та за допомогою яких засобів та інструментів можна описати спеціалізовані мови, а також те, який вплив це може чинити на викладання.

Ключові слова: технічна мова, мова для спеціальних цілей, дослідження мови для спеціальних цілей, викладання мови для спеціальних цілей, корпуси.

Introduction. The ability to learn and understand technical languages is a problem area which needs specialized linguistic research (Hoffman, 1982: 3). Linguistic research is one of the main fields of applied linguistics and, as such, it is relevant to language didactics and language teaching. These points of view can benefit from each other only if there is a bridge between theory and practice.

Modern European society is characterized by various movements: female students want to obtain a master's degree in other countries or continue their education there; specialists or even trainees migrate to get better job opportunities. Refugees who are forced to live in a country other than their homeland must master not only a foreign language but also a specialized language in order to be able to work (Hufeisen, 2016). German language programs are offered abroad. Besides, Content and Language Integrated Learning (CLIL) is becoming increasingly important. Focusing on vocational training and enhancement is even considered to be a particular way to increase the number of people learning German (Buhlmann, Fearns, 2018: 15).

It is obvious that teaching professional languages is becoming more and more relevant, but groups of students are becoming more differentiated, and teachers who are not usually experts in a particular field have difficulty in creating suitable courses. It can be explained by the fact that there exist a lot of problem issues which are either open or partially solved. One of them is, for instance, how teaching a professional language differs from teaching a foreign language (Poliakova, Samarina, 2021: 38). How can materials and textbooks meet the needs of teachers and diverse students?

1. Professional language in the field of research

In special literature there is a general opinion that there is no single definition of professional language (Drumm, 2018: 19), but it depends on the selected requirements for the science and theory of language. Since the emergence of Lothar Hoffman's systemic-linguistic definition (Hoffman, 1976: 170), at least three different concepts of professional language appeared in the 20th century: 1) systemic-linguistic model which considers professional language as a system of linguistic signs used in professional communication; 2) pragma-linguistic contextual model which focuses on the subject text and its contextual relationships (communicative relations in which professional communication plays a central role); 3) cognitive-linguistic functional model which highlights the intellectual and emotional requirements of the producer and the recipient. On the other hand, only in the 21st century we can see a new emphasis that draws attention to the "cultural turn" and "social practice" (Adamzik, 2018: 11).

Thanks to the adaptation and elaboration of the theoretical models mentioned above, we can single out new key points.

Firstly, professional language is a set of all linguistic means used in any field of communication and which may be limited to a specific subject to ensure communication between people working in this field (Hoffman, 1976: 170).

L. Hoffman adheres to the systemic-linguistic model of inventory, i.e. the functional interaction of linguistic means (i. e. the elements of all levels from sound or letter to sentence, as well as suprasegmental manifestations, stylistic principles, text organization, etc.) plays a central role and is used for the segment of social reality in which appropriate technical language is used. Here technical languages are seen as sub-languages in which phonological,

morphological, and lexical elements, as well as syntactic and textual phenomena form a functional unit and provide communication within the subject (Hoffman, 1976: 184).

L. Hoffman also tries to divide and systematize the subject area by proposing horizontal and vertical structures. Horizontal stratification focuses on individual areas of communication and their specialized languages and is the result of comparing the linguistic means of individual specialized languages with each other or with a specific subtext. According to Hoffman's scale, which he also allows with some restrictions for other languages (for example, Russian, English, and French), sublanguages under study or subject to study are placed side by side in an open line. The proximity or distance to other sublanguages, such as fiction, is taken into account with an emphasis on technical vocabulary. Another horizontal structure that brings together larger groups of subjects and is also recognized in most technical linguistic approaches (Roelcke, 2010: 31) is H. Steger's structure (Steger, 1988). It distinguishes between scientific language, technical language, and institutional language. H. Kalverkämper expands the structure to include two groups. They are "business language" and "consumer language" (Kalverkämper, 1988: 112). In his opinion, they should be perceived as separate types of human activity, both on the functional and linguistic levels.

Vertical stratification, on the other hand, may be related to the increasing degree of precision that language experiences in technical communication when, among other things, it moves from the concrete to the abstract (Hoffman, 1976: 185). L. Hoffman proposes the solution using particular criteria (level of abstraction, external form of the language, environment and objects in it) in communication.

R. Buhlmann and A. Fearns find Hoffman's solution problematic regarding the use of formal criteria (see also (Roelcke, 2010: 30–40)), and therefore propose a new definition of the concept (Buhlmann, Fearns, 2018: 25–26). They use the degree of simplification of the substantive behavior, i. e. stratification of the professional language according to the degree of its specialization in content (for example, the text in a school textbook is less specialized than an essay) as a criterion.

T. Roelcke also extends Hoffman's model introducing the aspect of linguistic types of texts (Roelcke, 2010: 30).

Secondly, professional language is a combination of all linguistic means used in the professionally limited field of communication to ensure mutual understanding between people working in this field (Hoffman, 1985: 53).

The central aspect in this model is the definition of a specialized text as both an instrument and result of linguistic and communication activity carried out in the context of specialized social and productive activity (Hoffman, 1985: 233). The fact that the text is seen as the result of professional communication, indicates an approach to pragmalinguistic contextual model, which takes into account both internal linguistic features (sound and font, vocabulary, syntax and text) and extralinguistic conditions of communication (landscape, social group, sphere of human activity and historical time) (Buhlmann, Fearns, 2018: 24), but not only in terms of their definition of linguistic systems, but also in terms of their importance in the context of statements. Subjects, professionals, as well as situations and goals of communication are involved for the first time (Drumm, 2018: 19). This new approach also combines multidisciplinary approaches to research (including sociological, psychological, semiotic and communication sciences), which provides several advantages, such as higher accuracy of description and applicability of research results (Roelcke, 2010: 22).

Thirdly, professional communication implies external or internal motivation or stimulation focused on professional events or their consequences, exteriorization and internalization of knowledge systems and cognitive processes that lead to changes in knowledge systems of both the individual and the whole community of professionals (Hoffman, 1993: 614).

Knowledge systems and cognitive processes are the focus of Hoffman's definition of professional communication. For the first time cognitive attitudes of a person himself are at the core of the linguistic views in the cognitive-linguistic functional model of the 1990s, which leads to a change in knowledge systems. Linguistic statements that correspond to and are formed by human cognitive attitudes are developed by professionals or specialists, respectively. Clarity, intelligibility, efficiency, anonymity, identity, and objectivity are important functional properties that are closely related to the representative function of language (Roelcke, 2010: 25–28). Specialized languages can change depending on the type and degree of the speaker or writer socialization and are formed by the elements of the subject's thinking (or by technical terms), thinking structures of the subject, communication structures which are familiar to the subject, and functional properties of technical language (Buhlmann, Fearns, 2018: 25).

2. Specialized languages in teaching

Textual characteristics (both linguistic and non-linguistic), as well as lexical, grammatical and syntactic characteristics, functionally meet the requirements of professional communication, i. e. they have a communicative effect (Roelcke, 2010: 91). The discussion of the language textuality has, in time, focused on various aspects, including the difference between macro- and microstructures, which has also proved effective in teaching.

Text macro- and microstructures are formally formed in cohesion, and functionally – in the coherence of linguistic and semiotic units (Roelcke, 2010: 93, 102). The macrostructure of specialized texts means a rough division, starting from the general text and ending with subtexts and their subsequent subsections. Despite the fact that specialized texts are determined by formal and functional units, which are usually consistent with each other, macrostructural isomorphism can be considered as one of the typical characteristics of specialized texts. This can lead to the fact that formal schemes of the structure (plans to create a specialized text at the macro-structure level) may be specific to certain types of texts (e. g. booking request in the language of tourism) and may increase the clarity of communication in a professional language. The functional necessity of certain fundamental blocks of the text is seen as a desire to economy. However, in addition to specific text blocks, there are other general text blocks. The tendency to

isomorphism is also manifested in the text typography. In addition to the linguistic parts of the text, different images are also quite relevant. They can be represented in different ways (illustrations, diagrams, etc.) and can help improve or facilitate perception. On the other hand, the microstructure can be addressed as a detailed structure of professional texts, and isomorphism between form and function, which was mentioned above, is also its determining feature. According to T. Roelcke, the structures of the theme-rheme, question-answer constructions, certain conclusions (e. g. syllogism), repeatability and isotopy, as well as other processes of microstructural communication (e. g. consecutio temporum) play an important role (Roelcke, 2010: 102).

Significant characteristics of professional texts also include intentionality, acceptability, information content, situationality and intertextuality, which, however, are formed by typical technical / professional communicative conditions.

In addition to the features mentioned above, the ability of certain types of text to be a prototype is also relevant, as it plays a central role in action-oriented and intercultural teaching a technical language. Despite standardization, text types also fall under cultural impact. Thus, it is essential to conduct not only intralingual analysis (e. g. digital text types, changes of the text type, the degree of professionalism of certain text types in certain discourses and areas of communication) but also interlingual comparisons (e. g. contrasting comparisons of text types). Corpora are an important support for both intralingual and interlingual comparison, and data- and research-based teaching has grown significantly in recent years. When selecting text types in class, we should take into account the fact which of them are prototypes for the technical language to be analyzed, which are suitable for the structures processed and which should be considered primarily receptively or productively. The analysis of macro- and microstructures of the selected texts is a good starting point for focusing on a rough and detailed structuring of texts with specific functions of text modules. Only then lexical, grammatical, and syntactic units should be introduced.

Vocabulary is considered an important area of professional language features (Roelcke, 2010: 55), and lexical characteristics were often even believed to be constitutional for professional languages (Fraas, 1998: 428), so technical vocabulary and specialized language were equated (to define technical vocabulary) (Roelcke, 2010: 55). Empirical studies have even shown that the vocabulary of the professional language makes up from 15% to 50% of the vocabulary of the professional text (Buhlmann, Fearns, 2000: 44), which, on the one hand, shows that, despite numerous syntactic and textual features, vocabulary is still a specific feature of the professional language.

Each specialized text is characterized by different types of technical terms (Roelcke, 2010: 56):

− intra-subject technical terms, i.e. the words of the corresponding subject matter;

− interdisciplinary technical terms, i.e. the words that can be found both in the relevant specialized language and in other specialized languages (the concept of everyday scientific language) (Ehlich, 1993: 13–42; Steinhoff, 2007: 40–42);

− additional technical terms, i.e. the words that belong to other specialized languages, but may appear in the technical texts of the relevant specialized language;

− non-professional words, that is, the words of the common language.

While the meanings of the words outside linguistic communication were determined by definitions, the characteristics of specialized words, such as accuracy, uniqueness, etc., were discussed in specialized linguistic research. The structural characteristics of specialized words are of particular importance for didactics, and we would like to emphasize the following aspects: a) types of words; b) the origin of words; c) word formation.

(a) One of the first conclusions that can be reached when reading a specialized text is that nouns are more common in relation to other types of words, such as verbs (Buhlmann, Fearns, 2018: 35). Of course, this phenomenon varies from one specialized language to another, as well as within one specialized language due to the level of abstraction and text type. Nouns are most often found in the singular and with the definite article. Genitive cases as well as noun compounds, functional verb structures, substantivizations, and circumstantial phrases are common because they are used for attribution. Adjectives play an important role only in the attributive function: in adjective-verb phrases, the first part of the compound specifies the meaning of the term. Verbs are not very common in specialized texts, as they play a secondary role as carriers of meaning (except for professionally significant verbs such as *stornieren*, etc.).

Verbs are often substantiated or replaced by functional verb compounds. As for closed classes, such as prepositions and conjunctions, specialized terms are even less common (Borgwaldt, Sieradz, 2018a: 58). However, assumptions play an important role, as they can clarify, differentiate and economically present statements (Buhlmann, Fearns, 2018: 38), even if there is a reduction in relation to common language (Buhlmann, Fearns, 2018: 39–40). On the other hand, conjunctions, as well as other cataphoric elements such as markers, are important as supporting elements. Anaphoric elements (including personal pronouns, demonstrative pronouns, etc.) and deictic elements should also be discussed in their reference function.

(b) The origin of a word is the origin and history of the word and its meaning. The import of terms from other foreign languages is of particular importance in this group as imported terms can be found with different frequencies in specialized languages. Then, we are considering the difference between borrowings and their translations. Borrowings can be adapted to the structure of the German language (e. g. *der Container* borrowed from Latin), be non-adapted, or not fully adapted (foreign words such as *jobben* from English *to job*). As for pronunciation and spelling, borrowings could adapt (foreign words such as *Model*) or retain foreign pronunciation (foreign words such as *Software*, *Hardware*, etc.). In translations of borrowings, each part of the word or phrase is translated (e. g. *Datenverarbeitung – data processing*). The advantages and disadvantages have long been discussed in the field of linguistic research.

But new words can also be derived from proper names. In physics and medicine, for instance, technical terms are often named after the researcher, e. g. *Ampère* in honor of Andre-Marie Ampère, *Alzheimer's disease* in honor of Alois Alzheimer or in medicine there are some terms in honor of the patient John Hagemann (the *Hagemann factor)*.

Vocabulary can be further expanded by forming metaphors by using a vernacular word with a different meaning due to certain features in a specialized language (*Kopf des Niets*, *der Schraube*) or by terminologizing a vernacular word (e. g. *Fluss*).

(c) The processes of word formation, i. e. the combination of grammatical and lexical morphemes into a new word, are motivated by the quest for linguistic economy. In the professional language, one can find the same word-formation patterns as in the vernacular language, even if the percentage of compound words is higher (Borgwaldt, Sieradz, 2018a: 60). Compounds, derivative words, words formed with the help of conversion, and abbreviations are morphologically complex words. Compounds have a relatively precise meaning and can consist of several terms that can already be used separately or combined. They can be used both with and without a binding element and can perform a variety of functions, such as syntactic compression, accuracy, and differentiation. The most common are the compounds formed with the help of nouns but you can also find compounds formed with verbs (e. g. *presspolieren*), or adjective-noun compounds. Derivatives can be formed with the help of both suffixes and prefixes. Suffixes are used to transfer one part of speech to another, so the boundaries between word-formation, forming compounds and forming new words (neologisms) are not obvious (Buhlmann, Fearns, 2018: 43). However, using prefixes can lead to a change in the meaning of the word.

The possibilities of obtaining information are numerous, and it is not always easy to compare. Conversion changes the type of the word. Nouns are the most common (das Informieren). Abbreviations or short words are also often used to shorten complex words for reasons of economy (BGB in the languages for lawyers and tourism for the German Civil Code).

In foreign language lessons for professionals, the goal is not to accurately distinguish between word formation and syllable formation, but to emphasize the linguistic means of transition from one type of words to another and change in their meanings. When choosing vocabulary, we should pay attention to the linguistic elements that are necessary for communication in a particular field. It particularly concerns frequent and relevant technical terms as mastering sufficient technical vocabulary is not an easy task for those learning German (Borgwaldt, Sieradz, 2018b: 69). Parallel and comparative corpora provide interesting opportunities for both teachers and students, as, unfortunately, there is still a lack of textbooks for teaching many specialized languages (Borgwaldt, Sieradz, 2018b: 61). Besides, in most cases teachers are not professional experts. So, word lists, for example, provide a good opportunity to give an idea of a specialized language and thus prepare a lesson. In addition, the corpora can provide authentic linguistic examples (words and structures), as well as support for correcting student texts to test the acceptability of certain constructions. Students can also benefit from working with corpora, especially for learning language contexts and understanding the importance of phrases in a specialized professional language. Thus, it is also possible to promote the development of technical language.

As the list of grammatical structures is limited, grammar can focus on the forms that predominantly occur in selected text types.

Certain structures, which can be found in specialized texts more often than in the common language, are also found in the field of syntax, because they are functionally conditioned, i. e. they comply with the economy of expression, clarity and unambiguity of facts and opinions in the communication of specialists (Fluck, 1996: 56).

The complexity of sentences is an important feature, because sentences in specialized texts are much longer than in other types of texts (Hoffman, 1998: 417). Clarity and consistency take into account both the length and complexity of sentences, even if this often complicates the reception. However, for specialized languages of the 20th century, there is a tendency towards reducing complexity (Roelcke, 2010: 88).

The main sentence in the form of a statement (based on the principle of economy and clarity) dominates as a type of a sentence, even if the ratio of the main sentence to the subordinate one may vary depending on the subject area and text type (Buhlmann, Fearns, 2018: 80). Interrogative sentences occur mainly as rhetorical questions with a structural function (Buhlmann, Fearns, 2018: 82), while hints can be found only in certain types of text (for example, recipes or other educational texts).

Complex sentences are not very complicated, and we should pay attention only to certain types of sentences. Typical auxiliary sentences are relative subordinate clauses that lead to clarification. Conditional sentences usually appear in the abbreviated form without a conjunction, and they are clearly themed as they can't be found in everyday language. Clauses of reason are rare. Subordinate clauses of purpose are usually characterized by the use of *um*, *zu*, and *vor* and correspond to the tendency of economy while subordinate clauses of time are less common, except for some types of texts (for example, in chemical articles, etc.).

Conclusions. Subject communication is influenced by the subject thinking elements (specialized terms), the object thinking structures, communication structures and functional properties of the specialized language the subject is familiar with. Thus, we can make a conclusion that textual, lexical, grammatical, and syntactic means are often taught in isolation. But what is important, attention should always be paid to their functionality in the relevant field of knowledge.

It is the professional and technical goals or goals of training and further education of students that determine the teaching of technical language today, which should ensure the sufficient level of the use of language in

a particular field of knowledge, when studying and in your profession. Students should have an opportunity to learn and understand a foreign language, to become socially acceptable and gain an understanding of intercultural environment. Despite the difficulties mentioned above (it is undeniable that there is still much to be done), we take the view that projects, empirical analysis and corpus-linguistics approaches, that should not be underestimated, can be of great use for teachers.

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