

## **Modern German Scientific and Technical Terminology: Main Methods and Models Formation**

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**Abstract.** *This article is aimed at identifying the features of the formation of German language based on professional technical literature. The relevance of the study material is beyond doubt, since today in digital world many processes in human life are carried out using computers or mobile technology, every day more and more electronic systems and applications appear, which, in turn, cannot but affect the language.*

**Key words:** *digital world, linguistic interest German terminology, the styles of language and styles of speech.*

### **Introduction:**

Currently, in connection with the progress in many areas of science and technology, the attention of a number of researchers is attracted by the study and description of Professional languages of various terminology systems. Linguistic interest in connection with the growing influence of high technologies on the life of society. A special place in this regard among the various languages is occupied by the language of computer technology. The main thing in the work of a teacher is not only what he will tell students in the lesson, not only the knowledge transmitted and monitoring their assimilation, but also how he implements the educational process, how he develops the skills and abilities of rational learning [3, 252]. Nowadays, we can state not only the computerization of almost all spheres of science, technology, industry, but also the rapid process of penetration of computers into the everyday life of a modern person. Familiarization with some computer training programs has allowed to change the educational environment for successful acquisition of a foreign language at higher education system. Computer-aided learning makes it possible to organize independent actions of each student.

### **Literature review:**

Research on the problem of using terminology has long been on the periphery of linguistics, and only since the middle of the 20th century have they become the focus of attention of linguists and terminologists in both domestic and foreign linguistics. This problem is the subject of research by scientists: O. S. Akhmanova, V. V. Vinogradov, G. O. Vinokur, V. G. Gak, A. A. Reformatsky, V. A. Tatarinov, and others.

### **Methods and analyses:**

Modern scientific and technical progress, due to the impossibility of its staying within the boundaries of one society and language, gradually spreads throughout the world, bringing with it new scientific and technical terms. The terms developed in one language or another in the course of scientific and technical development are adapted and adopted by foreign-language societies. Language [4, 74].

Understanding the styles of language and styles of speech helps to understand many of the connections between human culture and the speech culture of society. The communicative qualities of speech largely depend on the correct choice of styles of language or speech. Let us analyze the specifics and adaptation of scientific and technical terminology using the example of the German. The most widespread classification of functional styles is the following:

<b>German</b>	<b>English</b>
Offizieller Geschäftsstil (Kanzleistil)	Official business style (lawyer style)
Journalistischer Stil	Journalistic style
Künstlerischer fiktionaler Stil	Artistic fictional style
Konversationsstil (Alltagsstil)	Conversational style (everyday style)
Wissenschaftlicher (oder wissenschaftlich-technischer) Stil	Scientific (or scientific-technical) style

Scientific (scientific and technical) style is the information space of functioning of scientific and technical texts, serving as a means of communication in the field of science and educational and scientific activities. The main goal of scientific style is to convey the communicated information to the reader extremely clearly and accurately. And this is best achieved without the use of emotional means.

Scientific style is most clearly manifested in the written form of speech, but with the development of education and the practice of holding scientific conferences, it actively penetrates into oral speech, while maintaining its specificity. The leading stylistic features of the scientific style of speech: formality; accuracy; brevity; standardization; objectivity; logicity of linguistic expression; absence of emotionality; impersonality of presentation; concreteness. The main function of scientific style is to convey logical information and evidence of its truth, and often also its novelty and value [6, 8]. There are three varieties (sub-styles) of scientific style: scientific proper; scientific-educational; popular science. The problem of the status of a term, due to its versatility, has been central throughout the history of the development of terminology. The word "term" comes from the Latin "terminus" (border, limit). A term (from Latin terminus border, limit) is a special emotionally neutral word or phrase accepted in a certain professional sphere and used in special conditions. A term conveys the name of a precisely defined concept related to a particular field of science or technology. The specificity of terms as a special lexical category of words is that they are created in the process of production and scientific activity and therefore function only among people who have the corresponding scientific and production realities.

In digital world nowadays, computer terminology can be classified: by the method of formation:

- simple words (with metaphorical meaning); Metaphor performs two main functions - the function of characterization and the function of nomination of individuals and classes of objects. The initial function of metaphor is the function of characterization. For example: der Speicherplatz computer memory; der Zwischenspeicher buffer memory.
- derivative words; Derivative words are words that are formed from other words with the same root (or combinations of words). The word from which a derivative word is formed is called a generating (or motivating) word. For example: scannen scan (formed from der Scannerskaner); chatten correspond in a chat (formed from der Chatchat).
- compound words; A compound word is a word consisting of two or more bases. Compound words should be distinguished from phrases, which are also complex formations. The components of phrases are words, and the components of compound words are bases (morphemes). For example: der Internetdienst (InternetDienst) Internet service; das Betriebssystem operating system.
- abbreviations; The formation of compound abbreviations (abbreviations) is the abbreviation of phrases or compound words. In the computer vocabulary of the modern German language, abbreviations formed by shortening German words are widely used. For example: die CD (DVD) – disk; das DVDROM Laufwerk DVD disk drive.

borrowings; Borrowing is a process as a result of which a certain foreign-language element (primarily a word or a full-meaning morpheme) appears and becomes fixed in the language; as well as such a foreign-language element itself. Borrowing is an integral part of the process of functioning and historical change of a language, one of the main sources of replenishment of vocabulary. For example: formatieren – to format, googlen – to search through a search engine, die Homepage – a website.

- conversion; Conversion is a way of forming new words, in which the external form does not change, but the word passes to another grammatical category, acquiring new functions and a new meaning. For example: speichern – to save (information) (formed from die Speicher – memory). by semantics:
- Software; Software vocabulary consists of words related to computer software. For example: upladen – to download, to forward, der Virenschanner – an antivirus program, programmieren – to program, konvertieren – to convert, das Portal – a portal. Hardware. This is vocabulary related to computer hardware. For example: the computer (the computer), the printer (the printer), the earphone (the headphone), the mouse button (the mouse button), the monitor (the monitor), the processor (the processor), the taste (the taste) (the taster) (the key).

Computer terms can be formed: from external sources; by intra-linguistic methods. External sources of formation of computer terminology of the German language include English borrowings. Almost all national computer sublanguages are under the influence of the English language. Verbs - direct borrowings are presented in small quantities, they acquire the suffix -en in the process of assimilation: chatten, downloaden, emailen, mailen, scrollen, updaten, upgraden. Direct borrowings also include adverbs: online and offline, which are computer terms. The remaining borrowings are calqued terms. They are formed mainly by word composition through translation or hybrid word composition: Chatforum, das (engl. chat forum), Doppelklick, der (engl. double click), Flachbildschirm, der (engl. flat screen), Mausclick, der (engl. mouse click), Mauszeiger, der (vgl. engl. mouse pointer), herunterladen.

Intralinguistic methods include:

Affixierung- affixation

Konvertierung- conversion

Präfixierung- prefixation

Wortzusammensetzung- word composition

Abkürzung -abbreviation.

Affixation in German terminology serves as a word-formation means of German words, thereby expanding the lexical composition of the language, forming a rich vocabulary and making possible the emergence of stylistic means.

Die Zwischenablage-clipboard.

In a number of German terms, the addition of affixes occurs in combination with semantic processes (expansion of meaning, metaphorization): der Internetanschluss connection to the Internet, die Geheimzahl pin code Prefixation - the formation of nouns from other nouns using pre-root morphemes, is not widely used in the German language. For example: a noun formed using the borrowed prefix de: Deinstallation uninstallation. In the computer vocabulary of the German language, there are words that are formed using semi-prefixes that developed from adverbs and prepositions, in particular auf: Auflösung permission, solution; vor: Vorschau program. Conversion refers to non-linear methods of word formation; in the process of conversion, unlike affixation, a word from one part of speech passes into another without material change. In the terminological lexicon two phenomena are quite widely represented:

1. Substantivization: Abort (n.) premature termination of a program, removal of a task. Derived from abort (v.) to end abnormally, to fail.

2. Verbalization: spammieren to send intrusive advertising mail (from the noun spam, which is the name of such mail); klicken to click (from the verb click to click the mouse).

Compounding. There are:

1. Pure addition (addition of bases) die Grafikkarte - video card; der Hintergrund screensaver, background; die Hardware computer equipment; das Passwort - password; die Suchmaschine search engine.

2. Fusion (when a motivated word, consisting of two or more components, is completely identical in morphological composition to a syntactic phrase) umbenennen - rename; der Speicherplatz computer memory.

3. Mixed word formation (the compound word contains elements of affixation): der USBStick flash drive, USB storage device; das CD ROM Laufwerk CD drive. **Conclusion:**

Thus, the scientific and technical sphere is complex and difficult in the context of linguistics and translation. The system of terms in the scientific and technical field is particularly difficult. Within the German language, the main methods of formation include borrowing terms in their entirety or their root bases from other languages (English, Greek, Latin) and creating a term based on lexical units from one's own language (affixation, metaphorization, etc.). When working with scientific and technical texts, it is necessary to know and take into account the polysemy of terms and correctly determine the context of the term's use, since the final translation of words depends on this.

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