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THE USAGE OF SCIENTIFIC-TECHNICAL TEXTS IN THE ENGLISH LANGUAGE TEACHING

Nowadays the main feature of higher education becomes its humanitarian-personality orientation, when a special place is allocated to the form of personal value – semantic formations and moral – cultural growth of

person. The essential part of cultural process is the development of world culture values that demands a foreign language study. Change of the attitude to a foreign language study is also connected with the process of modernization and development of international relations between Russia and other countries and a turn to humanitarian values as well.

Thus, the proficiency in a language becomes a necessary condition of professional formation of technician specialists with language skills. In other words, we can call them the specialists of the new generation. Therefore, the realization of a course, directed to the training of these specialists is necessary at the higher education. It demands an adoption of new effective methods of teaching at studying process. One of the educational system chain is the technician university, which annually prepares tens of thousands new engineers, builders, designers, mechanics, etc.

In recent years it is often discussed the questions, which are connected with intensification of professional direction of foreign language teaching at the technician universities. Thus, the process of English teaching at the technician university is built according to the following aims:

- 1) to teach students to read the original literature of their specialization for getting necessary information;
- 2) to teach them to speak, talk and understand English oral speech on the base of learnt material [1].

The reading process of original professional literature is inseparably linked with the teaching of reading and translation of scientific-technical literature. That's why we are going to find out the features of scientific-technical text and analyze what is necessary to take into consideration by its translation.

Characterizing scientific-technical style it should be noted its information value, logicality, close link between the main idea and the details, exactness and objectivity, clearness and intelligibility as well.

Within the bounds of each functional style it can be singled out some linguistic features. Their influence on the course and results of translation process is rather high. Thus, at the scientific-technical style this is lexico – grammatical features of scientific-technical material and the leading hand of terminology, special vocabulary as well.

Under the term we mean the word or group of words, which has the exact or single meaning at the definite field of knowledge.

For instance, the following reduced words or group of words are terms:

tubing, computer – aided design system, cement grout/ laitance, foreshaft, shotcrete.

The term must have its exact meaning, pointed by its definition. It must be a purely objective denomination, free of any side meanings, which can distract a specialist and add the elements of subjectivity. Hereby, emotionality, metaphoric elements, the presence of any associations cannot be the characteristic features of term [2, c. 117].

In structural relations all terms can be classified on the following way: 1) simple terms as *«oxygen»*, *«resistance»*, *«velocity»*. 2) Completed terms, built by word building. Component parts of such term are often joined by linking vowel: gas + meter = gasometer. During this process sometimes it occurs the reduction of some components: turbine + generator = turbogenerator, ampere + meter = ammeter. There are also word combinations, components of which are in the attributive relations, when one component determines the other one: direct current, barium peroxide. Quite often an attributive element is expressed by the word combination that corresponds a semantic unit. This unit is orthographically expressed by hyphenating: low-noise pentode, doubling-over test. It should be noted an abbreviation of word combinations: e.m.f. = electromotive force. At times only some parts of the word combinations can be reduced: D.C. amplifier = direct current amplifier. The part of international terms is given by transliteration and doesn't need any translation: antenna, feeder, blooming. Some terms have a direct correspondence in Russian and translated by appropriate equivalents: hydrogen – водород, voltage – напряжение, etc. It should be underlined that the most part of terms is produced a loan single-needle instrument – однострелочный translation: superpower system – сверхмощная система. Frequently, the dictionary doesn't give a direct correspondence to an English term. So, in this case a student must resort to a descriptive translation.

It is obvious, that for a good comprehension and translation of scientific-technical literature the interpreter needs more than to know a term definition. Thus, for an adequate translation the interpreter must be good at the field of knowledge of the translated text.

As for special vocabulary, it includes various term derivatives, words, used at the description of relations between terminological specified definitions and objects, their properties and features. This vocabulary is usually fixed at the terminological dictionaries and its meanings are not specified as scientific definitions. For instance, – *the voltage is applied;*

- the magnetic field is set up [2, c. 119].

The main features of Russian scientific-technical style are well-defined with clarity of narration, clearness of definitions, form laconism. By translation of English text an interpreter must exactly pass author's thought, giving the shape that is proper to Russian scientific-technical style. Some English words and expressions are alien forms to the Russian language. So, at translation they must be changed by their counterparts, which are proper to

Russian text. E.g. We have learned to manufacture dozens of construction materials to substitute iron. In this case, we should use the word «tens» instead of the word «dozen».

By the first translation of scientific-technical text one should take into account the row of some grammar features. We don't mean a special «scientific-technical grammar». It is used the same syntactical structures and morphological forms, as in the other functional styles. But there are some grammar features, characterized for scientific narration. At the linguistic researches it is very often emphasized at such features, as a great prevalence of passive constructions, Present Simple Tense forms and a wide use of structures as «A is B». e.g. A breakdown is an electric discharge through an insulator.

In the English text it is determined the personal forms of the verb. We can see that in the text of descriptive character there is a wide use of Future Tense that expresses the regular action. These sentences must be translated in Present Tense, sometimes with modal tint. E.g. *The zinc in the dry cell accumulates a great many excess electrons which will move to the carbon electrode*.

Therefore, by translation we should resort to the change of passive constructions on the other means of expression, which are proper to Russian.

The authors of English scientific-technical literature widely use different abbreviations, which are not current in the Russian language. E.g. *d.c.* – *direct current*, *a.c.* – *alternating current*, *s.a.* – *sectional area*, *b.p.* – *boiling point*. In translation these abbreviations must be deciphered and given as a whole designation.

To the scientific-technical style it is also significant a wide use of plural forms of the material nouns (*fats, oils, greases, steels, rare earth, sands*) and the tools names (*clippers, jointers, shears, dividers*). It must be noted that the use of preposition «of» is also very spread at this style (*the oxidizer of liquid oxygen, the fuel of kerosene*) [2, c. 129].

The important characteristic of English scientific-technical style, which is reflected on the selection and usage of linguistic means, is consisted of tendency to the shortness and compactness of narration that is expressed at the wide use of elliptic constructions. The wrong understanding of these constructions leads to the silly mistakes.

Summing up, it should be underlined, that the translation of scientific-technical text must sufficiently give a sense of the source text. Deviations must be justified by features of the Russian language and demands of style. Correctness of scientific translation is determined by fact, that how much the interpreter knows the source language and subject of statement as well. Anyway, the sense must be given clear and understandably. The translation should be neither word for word translation, nor loose rendering of original [3, c. 1].

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ZUR FRAGE ÜBER DEN ZUSAMMENHANG VON LESEN UND ÜBERSETZEN DER FREMDTEXTE ALS SPRECHAKTIVITÄTENARTEN

Das Studium der Besonderheiten der verschiedenen Arten von Sprechaktivitäten in der wissenschaftlichen Literatur war zu allen Zeiten relevant. Der Strom der ausländischen Information wächst jeden Tag in der geometrischen Progression. Gleichzeitig bilden Textinformationen einen wesentlichen Teil von diesem. Es braucht immer mehr Anstrengungen, um sie zu verarbeiten und zu verstehen. Und das Verständnis der Lesung beeinflusst seinerseits die Erreichung der richtigen Übersetzung. Das heißt, Lesen und Übersetzen sind eng verwandt.

Es wurden viele Arbeiten, die mit dem Verständnis des Textes verbunden sind, gewidmet. Die Prozesse des Textverständnisses werden in Forschungen von in– und ausländischen Wissenschaftlern betrachtet: L.G. Wasiljew (1999), N.I. Zhinkin (1958), A.A. Salewskaja (2001), N.N. Klemenzowa (1996), I.L. Medwedew (1996), A.I. Nowikow (2004), O. Panagl, R. Wodak (2004) und vielen anderen. Der Entscheidung der oben genannten Frage im Rahmen der Übersetzungstätigkeit widmen sich die Arbeiten von A.A. Awakyan (2008), L.V. Kuschnina (2004, 2005), A.Yu. Naugolnych (2006), N.P. Peshkowa (2005), K. Raje (1978).

Übersetzungsprobleme sind in vielen in- und ausländischen Studien Gegenstand der Diskussion. Einige befassen sich mit allgemeinen theoretischen Fragen der Übersetzung (Winogradow 2001, Komissarow 1991, 2004, Latyshew 2001, Klaudy 2003), andere beziehen sich auf die pragmatischen Aspekte der Übersetzung (Aleksejezewa 2010, Gonchar 2009, Sacharow, Kuschnina, 2005, Catford 2004, Latyschew 2001, 2003, Brinker