

Some research on the Terminologies of Physics in Uzbek language

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Abstract: *The article deals with the issue of terminology of physics, its forming stages in Uzbek language and functioning in language. The application of terms is given, an attempt is made to clarify the appearance of terms in the language.*

Key words: *terminology, physics, scholars of Central Asia, dictionary of scientific terms, linguistic terms, meaning, translation, word-for-word, international language.*

After the declaration of independence of the Republic of Uzbekistan, the situation in the field of terminology has completely changed. External relations have further developed. A wide range of contacts, especially scientific ones, has been opened with many countries of the world. These factors led to the emergence of new terms in Uzbek language. Among these new terms, physical terminological system also occupies a special role. Therefore, at the current stage of development of science and technology, the study of physical terms from a linguistic point of view has also a great importance. In order to solve practical, especially theoretical problems, it became necessary to organize a number of issues, such as the system of physical terms, the laws of their formation, sources of formation, scope of application in general, shortcomings in this system and ways to overcome them.

At the present stage, that is, during the high-level scientific and technological revolution, new things, objects and concepts have begun to emerge in all spheres of production, science and technology. This leads to a significant enrichment of the content of the language dictionary. Consequently, the problem of terminology has become one of the main problems of modern lexicology. It should be noted that the solution of this or that problem and terminology is great importance not only for the relevant fields of production, science and technology, but also for linguistics.

The great scholars of Central Asia, such as Beruni, Fergani, Ibn Sino, Khorezmi, Ulugbek, wrote a few works in Arabic. In XVIII and XIX centuries, physics and the natural sciences in general were not taught in Uzbek language and therefore, there was no terminology of physics (only Arabic-Persian terms were used). Even in the leaked books published between 1921 and 1922, Arabic-Persian terms predominated.

Historically, in the late XIX century, Muslim schools in our country provided only a small amount of basic information in the field of wisdom (hikmatshunoslik) (physics). New schools were established in 1890, first in Tashkent, Bukhara, Kokand, Samarkand, Fergana, and then in other cities of the country. These schools began to teach science and physics, chemistry, biology, geology, and the humanities. Physics was taught in these schools based on the textbook of Abdullah Shunasi. It provided information on the operation of mechanical, thermal, electrical and steam engines. Kori-

Niyazi's short pamphlet *A Piece of Nature* was published in 1919. It explained the changes in the state of the body based on simple life experiences, which was a great innovation for physics teachers of that time. It was not until 1919 that the emphasis on teaching physics and other natural sciences in schools increased.

A physics teacher from Kokand Husainkhan-Niyazi created the first textbook «Wisdom-Chemistry» in 1922, and a physics dictionary containing 1140 terms was published only in 1932, long after it was written. In 1929, Abdullah Shunasi's physics textbook appeared. This book served as an important textbook for Uzbek schools of that time. On current issues in physics education, G.P.Shuppe, A.V.Muravyov, T.N.Kori-Niyazi, B.P.Weiber and others conducted scientific research. They have done a great affair in training physics teachers, compiling a dictionary of scientific terms of physics in Uzbek, quality translation of physics textbooks for schools with Uzbek language of instruction. Due to the efforts of these scientists, the number of publications on physics in Uzbek language has increased year by year.

Mallin Rahmatulla Kholmurodovich (1906-1986) - professor, physicist, honored scientist of Uzbekistan (1965), the second direction of the scientist's research work is a dictionary. He conducted extensive research in the creation of a Russian-Uzbek dictionary of terms in physics, and in 1952, in collaboration with M.D.Yagudayev he created an expanded and improved version of the dictionary, which became a basic guide for every school teacher and physicist. The history of compiling a dictionary of physics in Uzbek language was compiled by R.H.Mallin, E.N.Nazirov, R.M.Kadirov extensively covered in the preface of his book.

The book Russian-Uzbek short dictionary of physics, published in 1984, created by R.B. Bekjanov and O.I. Ahmadjanov, contains important terms widely used in the literature of physics.

In this regard, the need for physics terms in Uzbek language is growing. At the same time, there is a need to regulate terminology in physics and other fields.

Of course, a lot of researches have been done on linguistic terms in linguistics to date. Since scientific research is devoted to physical terms, the main source of research is the word. Although the concept of words is the most controversial in linguistics, the concept of words for literal languages is generally clear, for example, A.Hodjiev's definition of the word in the Explanatory Dictionary of Linguistic Terms we can find.

In the rapidly evolving field of physics, completely new physical terms (gluon, laser, holography) have emerged, which should have found their alternatives in language. On the other hand, the increasing use of physics in technology, the emergence of new terms and concepts in the field of science (Physical chemistry, Biophysics, etc.), which emerged in a continuous convergence with other sciences.

The most important step in the creation of any such scientific work is the translation of English terms into Uzbek. There is a completely new physical phenomenon for Uzbek language, if it does not have a term in this language, then the name of this phenomenon is formed by word acquisition, for example, anode anod and etc. Sometimes it is copied from another word on the basis of the vocabulary of Uzbek language, that is, a new word is formed that corresponds to the meaning and function of the word being translated into Uzbek. Although this method is widely used, it is not always justified. There may be situations where word-for-word translation is the process by which the meaning of a term or phrase that is being translated is distorted.

For example, the word degeneracy is translated in some dictionaries as *aynish - addle*. In fact, the first, most common translation of the word in the basic dictionary is *aynish - addle*. However, it emphasizes that the physical meaning of the word is completely different. In particular, the term degeneracy is interpreted in quantum mechanics as a **term referring to the fact that two or more**

stationary states of the same quantum-mechanical system may have the same energy even though their wave functions are not the same.” So, continuing the idea and following the first translation, we can use the words degeneracy of a level or degenerate level, degenerate distribution as added levels, added distribution (which have no physical meaning) would be formed. Now, if we examine these compound terms on the basis of the physical meaning of the word degenerate mentioned above, we will have compound terms with physical meanings, such as added levels, added distribution.

Therefore, it is not enough to say that literal translation is always appropriate. Here it is important to be able to choose the most appropriate translation, taking into account the linguistic sense and the different possibilities of language. Indeed, the above idea should be followed when translating words such as coincidence, anticoincidence, and voltage drop. For example, coincidence is translated as proportionality, conformity or voltage drop is translated as degression of voltage. In our opinion, it would be more appropriate to say coincidence as a concordance, voltage drop as a decrease of voltage. In this work, a similar translation has been used critically from previous work and dictionaries in selecting the translation of controversial terms or phrases.

There is another way to choose a term or phrase from a foreign language in Uzbek. The main goal is to ensure that the term of Uzbek translation is concise and corresponds to the original with the accuracy of the transition task. For example, translations such as key ochqich (clef), perforator teshkich (pierce) are appropriate. Although this method, which is available in the translation of languages, gives good results in its application, it should not exceed the norm from a linguistic point of view. Indeed, there are international physical terms those are used in many languages in scientific fields that can be distorted when replaced with another term. As a result, terms with a special order, which have found their place in the international language, when translated into Uzbek, may become different terms and do not correspond to the names adopted in most languages. Therefore, this method has some limitations.

References:

1. Bekjonov R.B. va b.lar. Fizikadan ruscha-o'zbekcha atamalar lug'ati. Toshkent, 1991.
2. Doniyorov R. O'zbek tili texnik terminologiyasining ayrim masalalari. -T.:1977.
3. Русско-английский физический словарь Новиков В.Д.. М.: РУССО. 2000.
4. Герд А.С. Терминологическое значение и типы терминологического значения // Проблематика определений терминов в словарях разных типов. Л.: Наука, Ленингр.отд-ние, 1986.