**REPUBLIC OF AZERBAIJAN** 

On the right of manuscript

## ABSTRACT

of the dissertation for the degree of Doctor of Philosophy

## LINGUISTIC ANALYSIS OF TECHNICAL TERMS IN AZERBAIJANI AND RUSSIAN LANGUAGES

Specialty:	5714.01 - Comparative-historical and
	comparative-typological linguistics

Field of science: Philology

Applicant: Matanat Hamidpasha Hamidova

Baku-2022

The dissertation was carried at Baku Slavic University in General linguistics department.

Scientific supervisor:

Doctor of Science in Philology, Professor Tamilla Hasan Memmedova

Official opponents:

Doctor of Philology Sciences, Professor Saida Ibrahim Ibrahimova

Ph.D. in Philology Camil Mammadaga Babayev

Ph.D in Philology Shafiga Mutellim Meherremova

Dissertation council ED 2.13 of Supreme Attestation Commission under the President of the Republic of Azerbaijan of Baku Slavic University.

Chairman of the Dissertation council: Doctor of Science in Philology,

Rahila Hasan Quliyeva

Scientific secretary of the Doctor of Science in Philology,

Professor

Nasiraga Shahmurad Mammadov

Chairman of the Scientific seminar:

Doctor of Science in Philology, Professor Eldar Rizvan Piriyev

### GENERAL CHARACTERISTICS OF THE SCIENTIFIC WORK

The relevance of topic Modern scientific and technical progress, intensive information flow, socio-political and social changes in our country, development of international relations enrich the vocabulary of the Azerbaijani language. The integration of our country into the world, the rapid development of international relations, and especially the expansion of mutual relations with the leading Western countries in many areas, enhance the process of technical terms. As a result, the technical terms in the language vocabulary form a special layout. In other words, the tendency of acquiring the same words and terms in different languages is conditioned by the current socio-political, social and cultural processes. The advancement of science and technology in this area. and the rapid introduction of new technical products into the home also play a special role. One of the main tasks facing modern linguistics is to study the terminological lexicon of any science in detail. Technical science has its own terminological lexicon. These terminological units represent some of the most important laws and laws of the real world, calling certain social and political processes, events of objective reality, and numerous concepts about them. In the technical terminology, the terminological units and their meaning parameters are coordinated. In the dissertation the semantic structure of the Azerbaijani and Russian technical terminology is studied in comparative diachronic and synchronic aspects, when the structuralsemantic, semantic-lexical features of the term are revealed. The development and differentiation of sciences, the expansion of the educational process, the use and application of technical achievements have laid the groundwork for the formation of field terminologies in languages, and the process of transferring terms from one language to another has taken place. The classification and systematization of such European-source terms is important in the normalization of scientific and technical terminology. It is the classification of terms that should be assimilated by the approximation of the corresponding language norm to the phonetic, graphic, grammatical and lexical-semantic

characteristic of the material form of the lexical unit, which is the assimilation of terms in the receptor language. Formal adaptation of the acquired term to phonetic and morphological norms of the language, working in different functional styles of the language, compliance with the rules of vocabulary, the formation of compounds of the acquired language by its synonyms, and the determination of the of the vocabulary. Their lexical-semantic, structurallimits grammatical, functional features, their origin, factors influencing the acquisition process, their development, developmental stages have not been systematically investigated. All these problems make a comprehensive study of ways to streamline and standardize purchases in Azerbaijani and Russian. Currently, the process of adjustment and unification of technical terms in Azerbaijani and Russian languages, studying the features of changes in the lexical system, both in terms of language and vocabulary is topical. That is, changes occur in the semantics of the acquired words, the need to master these words at different levels (phonetic, grammatical, semantic) in our language, and to identify the main ways of unification. These processes allow you to study in detail the causes, sources, paths, types and forms of verbalization, as well as semantic changes in acquisitions. In addition, the requirements for lexical-semantic and grammatical acquisitions, the manifestation of the semantic processes in the language, the ways to eliminate parallels in the terminological system, and the creation of a standard terminological system, in particular, determine the impact of their expression in the lexical system. Expressions of technical concepts, lexical-semantic, functional-semantic perspectives should be comprehensively investigated. All this justifies the relevance of the topic.

Azerbaijan has a dictionary of technical terms related to technical terms, as well as specific areas of technology. In particular, as a result of the attention and care of the late President H. Aliyev and his worthy successor, I.Aliyev, the state language, the terminology field has begun to develop rapidly, and lately, explanatory, bilingual, multilingual dictionaries for various fields of technology have been published. This has led to the involvement of the relevant field in monograph research. However, the comparative-historical and comparative study of technical terms in Azerbaijani and Russian languages has not been included. This is the key to our research.

The object and the subject of the research. The main research object of the dissertation is the technical terms in Azerbaijani and Russian. The transition of technical terms to the development of language relations in the context of globalization in the modern world has accelerated the process of enrichment of languages. Therefore, the unification of technical terms that are the subject of research contributes to the systematic development of the language.

The subject of the dissertation is linguistic analysis of technical terminology in Azerbaijani and Russian languages, ways of formation of terminology, lexical-semantic analysis. These technical terms are selected from various terminological dictionaries, descriptive dictionaries, bilingual and multilingual dictionaries, and literary works.

**The purpose of the study.** The main purpose of the research is a comprehensive study of lexical-semantic development of technical terms in Azerbaijan and Russian, which form a special layer in the terminological system of language.

**Research objectives.** For this purpose the following tasks are planned:

Defining the relationship between technical terms and terminology;

- to study the history of terminological ideas in Azerbaijani and Russian linguistics;

- to trace the history of origin and development of technical terms in the Azerbaijani language, to study the stages and sources;

- To trace the origin and development of technical terms in Russian, to study the stages and sources;

- To define the main methods of formation of technical terms in the Azerbaijani and Russian languages;

- To study the semantic method of creating technical terms in Azerbaijani and Russian languages;

- To study morphological method of formation of technical terms in Azerbaijani and Russian languages;

- to study syntactic methods of formation of technical terms in Azerbaijani and Russian languages;

- to study the method of the formation of technical terms in the Azerbaijani and Russian languages;

- to study the technique of aberration of technical terms in Azerbaijani and Russian languages;

- to investigate Azerbaijani acquisition as a source of enrichment of technical terms;

- Investigate Russian acquisitions as a source of enrichment of technical terms.

- To reveal the general and different features of technical terms in the languages studied;

**Research methods.** The research is based on descriptive, comparative-historical, and comparative-typological methods that combine traditional methods of linguistics research.

**Scientific novelty of the research.** For the first time, technical terms in modern Azerbaijani and Russian were studied monographic in theoretical and practical aspects. The study investigated the impact of different forms of language communication (contact and contact) on the enrichment of the Azerbaijani and Russian vocabulary content, and their regularity in the assimilation process. At the same time, the formation of technical terms, their lexical-semantic, structural-grammatical, functional features, directions of their development, stages of mastering were systematically investigated.

**Theoretical and practical significance of the research.** The study provides rich evidence for the opening of the process of entering technical terms into the language under the influence of linguistic connections, refining the theoretical dimensions of the terms of language acquisition by transcription and transliteration. Complex research of technical terminology in Azerbaijani and Russian clarifies and determines the place and position of terms in the term system, the specific and fundamental developmental laws of these terms, the extra linguistic and introsurgical relations, factors and so on. occurs. Practically, the results and materials obtained from the dissertation can be used in the preparation of multilingual and explanatory dictionaries in various fields, including technical terms, writing textbooks on

technical terminology, lexicology and lexicography, as well as methodological manuals in the dictionary of the Azerbaijani language.

#### **Basic provisions for defense**:

- The difference between the term and common words is expressed not in the words, but in the internal meaning of the word. The use of the term as a part of a specific vocabulary against common vocabulary is more acceptable. Although the history of scientific terminology in linguistics is not very ancient, many prominent scholars of the time have been thinking about the particular problems of terminology, and in their works have made certain considerations about the specific problems of terminology.

- Not every word in the technical terminology, or the term, has been included in the thermocouple system of the Russian and Azerbaijani languages. In both languages, technical provisions have begun to be understood after a long and conflicting development. The technical provisions in all differentiated languages have never been formed in the simplest form or at the same time. As is the case in other areas, technical terms have gone through a long process to include them in the language system.

- Determination of the technical terminology in linguistics contributes to the development of terminology.

- Technical terminology does not have its own separate method of creation. Universal methods used in other field terminology are also applicable in technical terminology. There are five basic ways of creating a technical term in both Azerbaijani and Russian: semantic, morphological, syntactic, hatching and abreast. It is a chemical nomenclature that relates only to chemical terminology that distinguishes technical terminology from other field terminologies.

- There are some similarities and differences in the techniques of acquiring both languages. Acquisition technical terms have played an important role in the enrichment of technical terms in both languages. However, comparable languages have been adopted from different languages at different times, depending on historical and geographical factors.

**Approbation and application.** Dissertation submitted to defense was performed at the Department of General Linguistics at

Baku Slavic University. The main provisions of the research have been reported at scientific conferences, scientific seminars and are reflected in the author's scientific articles.

**Structure of the research.** The dissertation consists of an introduction (6 pages, 8961characters), first chapter(44 pages, 161096 characters), second chapter (82 pages, 151085 characters) third chapter (22 pages, 40280 characters) the conclusion (6 pages, 11580 characters), a list of references (11 pages, 19198 characters), total volume of the dissertation 175 pages, 312397 characters.

#### **BASIC CONTENT OF WORK**

The first chapter, **The Organization and Development of Technic terms in the Azerbaijani and Russian Languages**, consist two paragraphs.

The first paragraph, untitled **Term concept. Terminology discussions in Azerbaijan and Russian languages** is more theoretical. An attempt has been made here to clarify what the term (technical term) is and to illuminate the views of Azerbaijani and Russian linguists on it. The linguistic nature of the term differs from the usual words of the national language. The term refers to objects, events and concepts about them. The terms with complex internal semantic structure are single, independent, separate names.

Terms play a special role in the development of science and technology, materialize the concepts in words, and serve as a tool for the perception of the world around us and the consolidation of our knowledge. In general, researchers have a holistic approach to the role and function of terms. However, there are differences in the definition of the term. It is well-known that the terms are a subject of research not only in linguistics, but also in other sciences such as philosophy, logic, science, and computer science.

As V.F.Asmus explains the term: "Verbal expression of a definite and definite conception is suitable in science." It is also a combination of words", in other Russian dictionaries it also refers to a specific area of science and technology. As a result of such widespread use, it is difficult to give a logical description of the term. Therefore, many researchers give a description of the term by distinguishing it

from one or another of its features (for example, ambiguity, accuracy, neutrality, systematic, the strict, accurate definition of terms).

Technology with the help of appropriate technical facilities can be used for mechanical, physical, chemical and other factors that are important for the impact on raw materials and materials. combines knowledge about processes. Centuries ago, our people enjoyed pottery, carpentry, paddling, tattooing, hunting, etc. technologies. A number of terms have emerged from this tradition to the modern technical terms:

For example, metal and alloy names such as qurğuşun, polad, bürünc, qalay, çuğun, as well as non-metallic names like mərmər, pas, paxır, kərpic, şüşə, ağac are common technical terms that have come to our day.

Although basic terms in technical terminology are terms like mathematics, chemistry, physics, aviation technology and engineering, biochemical technology, chemical technology and engineering, computer devices and technology, construction technology, construction, etc. terms are considered to be technical terms.

The main task of the science and techniques involved in manufacturing processes is to facilitate human labor and increase labor productivity based on the understanding of the laws of nature. The technique reduces human participation in the performance of technological functions related to mental and physical labor, replacing it partially or completely in production and contributing to the increase of human labor efficiency.

After the independence of the Azerbaijani state, the development of national consciousness and the establishment of a democratic society governed by the need to expand the scope of the native language. The decree of the great leader Heydar Aliyev, signed on June 18, 2001 "On improving the functioning of the state language", is an indication of the great care and attention paid to the Azerbaijani language. As a worthy successor of such forward-looking policy, the President of Azerbaijan Ilham Aliyev entered the new stage of development and implementation of the native Azerbaijani language on May 23, 2012 following the decree "On the use of the

Azerbaijani language in the context of globalization and the State Program for the Development of Linguistics in the Country". The above-mentioned decree addresses a number of important linguistic issues, as well as a special emphasis on the development of terminology in the Azerbaijani language. In this case, the issues of terminology and linguistic research of terms are of particular importance.

Recent research in the field of terminology has received a wide range of books and monographs, textbooks, explanatory and two-, even three-, four-term terminological dictionaries on theoretical problems of terminology.

In Russian, terminology was formed as a part of lexicology. However, since the 1980s, terminology has been viewed as an independent, complex field of science. Although this science was related to linguistics, its problem was beyond language. Terminology in Azerbaijani and Russian linguistics has gone through a different evolution.

The second paragraph, untitled the development stages and sources of technic terms in Azerbaijani and Russian languages, has been used to describe the technical and vocabulary of Azerbaijan and Russian in terms of the development of technical terms of both languages. Thus, the development of technical terminology in linguistics contributes to the development of terminology. Definition of understanding is a logical process. Definition should fully define the content of the concept. The language vocabulary is enriched with the influence of sociolinguistic factors over time as the need arises. That is, changes in public lexicon are reflected in the vocabulary of the language. From this point of view, the lexical system of the language is the carrier of the history and culture of the people. Political, social change, scientific and technological progress, and changes in the economic and cultural life of society have a significant impact on the language and its internal development laws. The history of creation and development of technical terms in the Azerbaijani and Russian languages has its own way, and depending on the historical path, the political and geographical conditions of the people, the vocabulary of these languages has gone through different evolution.

Studies show that the technical origins in the Azerbaijan and Russian languages originated from different periods. Common words related to technology have subsequently become terminology. The first period of the formation and development of the terminology in Azerbaijani language can be considered from the VI-VII centuries. It is possible to compete with the different fields in the Orkhon-Yenisei books, in the books of Yusuf Balasaghini's "Kutak knowledge", in the Divan-Lughat-it-Turk, and in Kitabi-Dede-Korqud by Mahmud Kushgairi. In the Russian language, the scientific and technical terms were established from the time of Peter I, in the XVII century. The origins, formation and evolution of technical terms in Azerbaijani and Russian are reflected in the first chapter of the thesis.

Not every word in the technical terminology, or the term, has been included in the thermocouple system of the Russian and Azerbaijani languages. In both languages, technical provisions have begun to be understood after a long and conflicting development. The technical provisions in all differentiated languages have never been formed in the simplest form or at the same time. As is the case in other areas, technical terms have gone through a long process to include them in the language system. Technologically, the process of implementing the technical provisions in our language has been scientifically defined. The development of new areas of science is necessary for the development of new technologies related to the development of linguistic techniques against them. Innovations in industry, world science, information technology, and many other areas are just emerging trends in science, which, in turn, dictate the proper technical procedures.

It is important to note that the twentieth century has seen significant changes in the development of technology, as was the case in other areas in the early twentieth century. These processes have led to drastic changes in the vocabulary of the Azerbaijani and Russian languages, in its thermal system, and in particular in the technical terminology. The scientific and technical provisions are based on complex and multidisciplinary terms. It should be noted that during this period technical terms in both Azerbaijani and Russian languages were more common. The modern technical technic system is one of the most important issues in the field of thermocouple research, as well as the reduction of connections between the different languages.

The second chapter of dissertation the technic term forming ways in Azerbaijani and Russian languages consists 5 paragraphs. This chapter explores the technical terms of both languages in terms of synchronicity, and is currently trying to determine the main ways in which they were created. In both languages, technical terms are formed mainly by morphological, syntactic, semantic, backward, and abrasive methods. A separate paragraph is devoted to each of these five basic methods for establishing technical terms in Azerbaijani and Russian respectively. In each passage the words, phrases and technical terms of both the Azerbaijani and Russian languages are studied in parallel, and are studied separately in terms of seismic, morphological, syntactic, epileptic and economic techniques. are based on examples. The five main methods mentioned above have different meanings in term creativity in different historical periods. In both languages, technical terms arise within the language. In both languages, morphological, syntactic, semantic, abstractive, hash methods are widely used in the creation of technical terms.

The first paragraph is called **semantic method of technic term forming in Azerbaijani and Russian languages**. There is a new understanding of scientific and technological progress that is necessary to name them. This is when adding new content to existing words or terms in a language, that is, using a semantic method. While creating new terms in semantic terms in the terminology system, new words are not added, but new meanings are added to the existing terms, quality is changed, and words are enlarged in meaning. The reason for this phenomenon is the rapid advancement of scientific and technical progress, and the limitations of any natural language.

A.Gurbanov believes that "There is and cannot be any language in the world that expresses every concept in a special way. Often new words are not searched for expressing new concepts that have arisen in relation to development"<sup>1</sup>.

<sup>&</sup>lt;sup>1</sup> Qurbanov, A.M. Müasir Azərbaycan ədəbi dili / A.M.Qurbanov. -Baku: Maarif. - 1967. -374 p. p.389

In the early stages of the formation of terminological names in both languages, the semantic method, in particular, depends on the level of social and mass thinking that created a broad term for metaphor use. Early term terminological names retain the features of concrete-image thinking based on purely external similarity of objects and events. For example: "forma oxşarlığı: цепные химические peaкции – zəncirvari kimyəvi reaksiyalar (əmələ gətirdiyi aralıq reaksiya məhsulundan ibarət aktiv hissəciyin arası kəsilmədən regenerasiyaya olunaraq ilkin maddənin külli miqdarda molekulu və *va nüvəsində kimyəvi cevrilmələr törədən reaksiyalar*)<sup>2</sup>. Or function similarity: "вакансия (lat. Vacans – boş yer)- vakansiya kristallardakı qüsurlardan biri; kristal qəfəsin qovşağında atom və ya ionun olmaması)"<sup>3</sup> Methanimy (yağlar, spirtlər), synonymy (arsenalcəbbəxana, liman-port), antonymia (tərpənən blok- tərpənməz blok, fokal sistem-afokal sistem) homonymy ((bel (Лопата - Kürək. Bel. (torpağı qazmaq, yumşaltmaq və s. üçün işlədilən əl aləti) və bel (Бел (amerikalı ixtiraçının adından) - Bel (eyni adlı iki fiziki kəmiyyətin nisbətinin loqarifmik vahidi)), and other cases have been extensively studied in the dissertation, some of which have been identified and substantiated by the rich factual material of both languages, and have sought to identify similar and distinct features.

D.S.Lotte notes that "when the ordinary word has become a scientific and technical term, it has acquired the proper meaning in any system of terminology and, to be precise, it has added a new meaning to the previously mentioned meaning." Although the method of expressing the terminological notion of words is still used today, morphological and syntactic terms are less commonly used. This is due to the tendency of the terms to be isolated.

Morphological method of technic term forming in Azerbaijani and Russian languages is devoted to the morphological method of the formation of the second paragraph. It has been found

 $<sup>^2</sup>$ Rusca-Azərbaycanca texniki terminlərin izahlı lüğəti / tərtibçi G.Qocayeva, - Bakı: Azərbaycan Milli Ensiklopediyası, -2004. s.618

<sup>&</sup>lt;sup>3</sup> Rusca-Azərbaycanca texniki terminlərin izahlı lüğəti / tərtibçi G.Qocayeva, - Bakı: Azərbaycan Milli Ensiklopediyası, -2004. s.69

that in both languages it is possible to say that the most efficient way of creating a technical term is the morphological method.

In the Russian and Azerbaijani languages, other methods are used in the process of punitive disorder by their own efficiency. Different from other methods, lexical units, such as form and content, appear in the context of the technical rules developed by this method. This process is largely alive with the word-for-word and, sometimes, in-picture artists in the language itself. Different from the Russian language, the process of malpractice, that is, the language of the process, is extremely rich in the language of Azerbaican. There is a wealth of lexicon artists in the Azerbaican language. The rates of activity of the modern painters have been determined. There are many examples that have been compared to this. For example, in the Azerbaijani language, some painters exhibit higher performance, while other artists exhibit relatively low productivity. The same situation can be seen in Russian technical terminology. Some suffixes are high in the formation of technical terms, while others are less productive. In the technical system of the Azerbaijani and Russian languages, considerable differences can be met. Well, the Russian language has specific features in terms of word and phrase. It should be noted that the language of the word processor uses three bases in which the word originates from the prefixes and prefixes. The prefix, postfix, interface, suffix, etc., when creating a technical term morphologically in Russian, which is a fictional language. used by the artists. This situation is different in Azerbaican. In the case of the Ilocular language, there is almost no prefix, postfix, and interface, except for some prefixes. Based on the technical terminology of both languages, these differences are compounded and the differences identified.

The third paragraph is called a **syntactic method of technic term forming in Azerbaijani and Russian languages**. In Russian and Azerbaican, it is also widely used in the technical education system by other synthetic methods. In this way, the definitions of the essay can be divided into three groups: 1) Complex words. For example: əlmişarı, çaydaşı, taxtaucu, divarqurğusu; "*Aлунит (fran.* 

alun –  $z \ge y$ )- Alunit. Z $\ge y$ daşı (sulfatlar qrupuna aid mineral)"<sup>4</sup>, 2) It is a combination of words, that is, the processing of single words in different parts of the speech, and the meaning of a single sentence. For example: "зона с промышленной нефтегазоносностью – zone with commercial oil-and-gas content, pay zone – sənaye neft-qazlı sahə: müasir texnika və texnologiyadan istifadə etməklə yerin təkində şaquli istiqamətdə (layın qalınlığı boyunca) kifayət qədər çıxarıla bilən neft *və qaz yığımı olan sahə. Bax: промышленные запасы нефти и ca3a*<sup>35</sup>; 3) form of word combinations. At the same time, the syntactic method separated in two methods as lexical-syntactic (At this time no morphological tool is used. Only words or terms combine to form a new term. Lexical units create a new term without the help of a figure. For example: "Газлифт-Gaslift – <u>Qazlift</u>: izafi təzyiq altında olan sıxılmış səmt qazının və ya qaz yatağından alınan qazın enerjisi hesabina mavenin guvudan galdırılma üsulu<sup>"6</sup> and morphologicallysyntactic (The terms formed in this method use both lexical and grammatical formulas, and when words combine together to form a new term, for example: ikifazalı, borudüzən. "menлопроводность – termal conductivity – istilikkeçirmə. Maddənin özündən enerjini qabiliyyətini mikrohissəciklərin istiliyi formasında keçirmə səciyyələndirən fiziki parametr. Bu ədədi qiymətcə vahid temperatur gradiyentində vahid zaman ərzində izotermik səthin vahid hissəsindən keçirilən istiliyin miqdarına bərabərdir. Ötürülən enerjinin miqdarı, yəni istilik selinin sıxlığı Furye qanunu ilə müəyyən olunur<sup>7</sup>.

As in the English version of the NCAA rules, the names of the items in the Azerbaijani language are "formulated":  $H_2O_2$ -hidrogen peroksid, SiO<sub>2</sub>-silisium dioksid. In the chemical language of the Russian language, the re-reading of the formula is used as a

<sup>&</sup>lt;sup>4</sup> Rusca-Azərbaycanca texniki terminlərin izahlı lüğəti / compiler G.Qocayeva, - Baku: Azərbaycan Milli Ensiklopediyası, -2004. p.232

<sup>&</sup>lt;sup>5</sup> Azərbaycanca-rusca-ingiliscə neft və qaz yataqlarının işlənməsinə aid terminlərin izahlı lüğəti. -Baku, - 2007.p.225

<sup>&</sup>lt;sup>6</sup> Azərbaycanca-rusca-ingiliscə neft və qaz yataqlarının işlənməsinə aid terminlərin izahlı lüğəti. -Baku, - 2007.p.107

<sup>&</sup>lt;sup>7</sup> Azərbaycanca-rusca-ingiliscə neft və qaz yataqlarının işlənməsinə aid terminlərin izahlı lüğəti. -Baku, - 2007. p.664

nomenclature option:  $H_2O_2$  –перекись водорода, SiO<sub>2</sub> диоксид кремния.

The fourth paragraph is devoted to abbreviation as technic term forming method in Azerbaijan and Russian languages. Although in modern terminology both in Azerbaijani and Russian languages the method of abreviation is less used than other methods, the number of terminology related to the development of scientific and technological progress is increasing. In particular, the presence of a number of words in a number of complex names necessitates such a method. Because there is a great need to replace such multilingual names with short words. Abortion is the most effective method in this area. The preference for shortening multilingual names is also due to the simplicity and convenience of such a method. The rapid development of science in modern times stimulates the development of abreviate method in terminology. The development of science poses the problem of the emergence of new inventions and the improvement of their expression on a regular basis. Devices released on upgraded or newly created models will enrich individual lexical layers of each language from the need to be renamed.

The fifth paragraph is devoted tracing (calca) method of technic term forming in Azerbaijani and Russian languages. In both languages, the technique of hips demonstrates productivity in the creation of technical terms. Making terminals with the use of hats has greatly expanded lately. This method is widely used to find the optimal correlation of the relevant terms in the developing fields of science and technology. There are different opinions about the essence of the method. Some researchers believe that the terms generated by hips should be considered as a type of acquisition term. Others, on the contrary, think that hats are a way of translating foreign words into their native language. In the Azeri and Russian languages, we use the internal resources of the language: both root and morphemes, as well as lexical formers when making terminals. In the Azerbaijani and Russian languages, the balconies are divided into different groups according to different criteria. These are reflected in our research and are supported by examples. For example: next calca types are under consideration "Природный газ - təbii qaz (Yer qabığında sərbəst halda, suda və neftdə məhlul şəklində, süxurlarda udulmuş halda rast gəlinən qazlar)"<sup>8</sup> semantic calca, "<u>Электронная пушка</u> – <u>elektron</u> <u>topu</u> (elektron dəstəsinə və ya axınına lazımi forma və intensivlik verən qurğu)"<sup>9</sup> structure-semantic calca, "<u>Полуприцеп</u> – <u>yarımqoşqu</u> (dartı qurğusu ilə yedəyə götürülən bir və ya iki oxlu motorsuz qoşqu)" full calca, "<u>Фазорегулятор</u> – <u>Faza tənzimləyicisi</u> (asinxron faza maşını şəklində olan tormozlanmış rotorlu qurğu; çıxışdakı gərginliyin fazasının girişindəkinə nisbətən səlis dəyişmək üçündür)"<sup>10</sup> half calca.

The third chapter of the study is called **borrowing as a source** of enrichment of technic terms Azerbaijani and Russian languages. This chapter is divided into two paragraphs and is fully devoted to the problem of borrowing. Borrowing terms from other terminologies of languages is a continuous process. During the exchange of information, these terms go beyond the national language and the primary basis for borrowing appears.

In the first paragraph, named **borrowing as a source of enrichment of technic terms Azerbaijani language** the technical terms used in the Azerbaijani language, their historical-genetic layouts, and the factors that influence their entry into our language have been studied. For example, different languages have been adopted from different languages at different times, compared to historical and geographical factors. When we look at the origin of the technical terms in our language, it is clear that at various times, in accordance with the requirements and conditions of the period, the dictionary of the Azerbaijani language includes Arabic and Persian, Russian and European words.

However, when looking at the second paragraph, **borrowing as a source of enrichment of technic terms Russian language**, the Arabic-Persian technical terms in Russian technical terminology are insignificant, even inadequate.

<sup>&</sup>lt;sup>8</sup> Rusca-Azərbaycanca texniki terminlərin izahlı lüğəti / compiler G.Qocayeva, -Baku: Azərbaycan Milli Ensiklopediyası, -2004.p.442

<sup>&</sup>lt;sup>9</sup> Rusca-Azərbaycanca texniki terminlərin izahlı lüğəti / compiler G.Qocayeva, -Baku: Azərbaycan Milli Ensiklopediyası, -2004. p.647

<sup>&</sup>lt;sup>10</sup> Rusca-Azərbaycanca texniki terminlərin izahlı lüğəti / compiler G.Qocayeva, -Baku: Azərbaycan Milli Ensiklopediyası, -2004. p.594

The study of terms derived from a foreign language shows that certain changes have occurred in both their writing and pronunciation. As there are different systems, the transfer of the term from one language to another requires that it be adapted to the norm. The acquisitions in the terminology of the Azerbaijani language are used in accordance with the language and historically formed language laws and specifications. However, it should be noted that while some of the English-language vocabulary is adapted to the phonetic and grammatical features specific to our language, the other preserves its existing form in the source language and has been used without any modifications in the source language. The terminology of each language is a continuous process of obtaining terms from other languages. This is due to the fact that science and technology do not develop in one country, in a region dominated by a national language. Science can develop in many parts of the world, and as science develops, new discoveries and terms emerge as the discovery is made. In the process of information exchange, those terms go beyond the national framework and provide the basis for the acquisition of terms.

Thus, we can summarize the results of the study as follows:

- Determination of technical terminology in linguistics contributes to the development of terminology.

- Definition of understanding is a logical process. Definition should fully define the content of the concept.

- The vocabulary of the language is enriched with the influence of sociolinguistic factors over time, as the need arises. From this point of view, the lexical system of the language is the carrier of the history and culture of the people. Political, social change, scientific and technological progress, and changes in the economic and cultural life of society have a significant impact on the language and its internal development laws.

- The origins, formation and evolution of technical terms in Azerbaijani and Russian are reflected in the first chapter of the thesis. The history of creation and development of technical terms in the Azerbaijani and Russian languages has its own way, and depending on the historical path, the political and geographical conditions of the people, the vocabulary of these languages has gone through different evolution. Studies show that the technical origins in the Azeri and Russian languages originated from different periods. Common words related to technology have subsequently become terminology. The first period of the formation and development of the terminology in Azerbaijani language can be considered from the VI-VII centuries. It is possible to meet the different fields of Orkhon-Yenisei's books, such as the "Knowledge of Yusuf" by Joseph Balasaghini, "Divaani-Luqaitit-Turk" and "Kitabi Dede-Korqud" by Mahmud Kushgairi. In the Russian language, the scientific and technical terms were established from the time of Peter I, in the XVII century. However, the "Word of the Igor Regiment" and other examples can be considered as the early period of the formation and development of the Russian terminology.

- Not every word or phrase used in the technical terminology has ever been directly involved in the thermological system of Azerbaican and Russian. In both languages, technical provisions have begun to be understood after a long and conflicting development. The technical provisions in all differentiated languages have never been formed in the simplest form or at the same time. As is the case in other areas, technical terms have gone through a long process to include them in the language system. Technologically, the process of implementing the technical provisions in our language has been scientifically defined. The development of new areas of science is necessary for the development of new technologies related to the development of linguistic techniques against them. Innovations in industry, world science, information technology, and many other areas are just emerging trends in science, which, in turn, dictate the proper technical procedures.

- It is important to note that the twentieth century has seen significant changes in the development of technology, as was the case in other areas in the early twentieth century. These processes have led to drastic changes in the vocabulary of the Azerbaijani and Russian languages, in its thermal system, and in particular in the technical terminology. The scientific and technical provisions are based on complex and multidisciplinary terms. It should be noted that during this period technical terms in both Azerbaijani and Russian languages were more common. The modern technical technic system is one of the most important issues in the field of thermocouple research, as well as the reduction of connections between the different languages.

- In both languages, technical terms are formed mainly by morphological, syntactic, semantic, backward, and abrasive methods. However, in different historical periods, these methods have played a significant role in the term creativity.

The Russian and Azerbaijani languages, as well as the majority \_ of the different languages, have been tried to distinguish between words, terms, and technical terms by means of seismic, morphological, syntactic, epic, and economic methods. In both languages, technical terms arise within the language. In both languages, morphological, syntactic, semantic, abbreviation, calc methods are widely used in the creation of technical terms. The technical terminology of both Azerbaijani and Russian is enriched by acquisitions. However, there are also significant differences in the technical regulation of the Azerbaijani and Russian languages. Well, the Russian language has specific features in terms of word and phrase. It should be noted that the language of the word processor uses three bases in which the word originates from the prefixes and prefixes. The prefix, postfix, interface, suffix, etc., when creating a technical term morphologically in Russian, which is a fictional language. used by the artists. This situation is different in Azerbaijan. In the case of the Ilocular language, there is almost no prefix, postfix, and interface, except for some prefixes. Based on the technical terminology of both languages, these differences are compounded and the differences identified.

- Azerbaijan has a dictionary of technical terms related to technical terms, as well as specific areas of technology. In particular, as a result of the attention and care of the late President H. Aliyev and his worthy successor, I.Aliyev, the state language, the terminology field has begun to develop rapidly, and lately, explanatory, bilingual, multilingual dictionaries for various fields of technology have been published. This has led to the involvement of the relevant field in monograph research. However, the comparative-historical and comparative study of technical terms in Azerbaijani and Russian languages has not been included. This is the key to our research.

- In the Azerbaijani and Russian languages, other methods are used in the process of punitive disorder by their own productivity. Different from other methods, lexical units, such as form and content, appear in the context of the technical rules developed by this method. This process is largely alive with the word-for-word and, sometimes, in-picture artists in the language itself. Different from the Russian language, the process of malpractice, that is, the language of the process, is extremely rich in the language of Azerbaijan. There is a wealth of lexicon artists in the Azerbaijan language. The rates of activity of the modern painters have been determined. There are many examples that have been compared to this. For example, in the Azerbaijani language, some painters exhibit higher performance, while other artists exhibit relatively low productivity. The same situation can be seen in Russian technical terminology. Some suffixes are high in the formation of technical terms, while others are less productive.

- In the Azerbaijani and Russian languages, the system of technical training is widely used by other methods, including the syntactic method. In this way, the definitions of the essay can be divided into three groups: 1) Complex words. 2) It is a combination of words, that is, the processing of single words in different parts of the speech, and the meaning of a single sentence. 3) Those in the form of word combinations. At the same time, the syntactic method is divided into lexical-synthetic and morphological-syntactic methods.

- Hər iki dildə terminoloji adların formalaşmasının ilkin etaplarında semantik üsuldan, xüsusilə metaforadan geniş istifadə termini yaradan ictimai, kütləvi təfəkkürün səviyyəsindən asılı olub. Erkən dövr terminoloji adlar əşya və hadisələrin sırf xarici oxşarlığına əsaslanmış konkret-obrazlı təfəkkürün xüsusiyyətlərini qoruyub saxlayır. Müasir dövrdə də semantik üsulla texniki termin yaranması öz məhsuldarlığını və aktuallığını saxlayıb. Müasir elmi texniki və digər terminologiyalarda da ümumxalq dilinin yeni semantik məna verilmiş, əsasən də abstrakt mənalı xeyli sayda sözləri işlənir.

- Although in modern terminology both in Azerbaijani and Russian languages are used less than abreviation methods, the number of terminology related to the development of scientific and technological progress is increasing. In particular, the presence of a number of words in a number of complex names necessitates such a method. Because there is a great need to replace such multilingual names with short words. Abortion is the most effective method in this area. The preference for shortening multilingual names is also due to the simplicity and convenience of such a method. The rapid development of science in modern times stimulates the development of abreviate method in terminology. The development of science poses the problem of the emergence of new inventions and the improvement of their expression on a regular basis. Devices released on upgraded or newly created models will enrich individual lexical layers of each language from the need to be renamed.

- In both languages, the technique of hips demonstrates productivity in the creation of technical terms. Making terminals with the use of hats has greatly expanded lately. This method is widely used to find the optimal correlation of the relevant terms in the developing fields of science and technology. There are different opinions about the essence of the method. Some researchers believe that the terms generated by hips should be considered as a type of acquisition term. Others, on the contrary, think that hats are a way of translating foreign words into their native language. In the Azeri and Russian languages, we use the internal resources of the language: both root and morphemes, as well as lexical formers when making terminals. In the Azerbaijani and Russian languages, the balconies are divided into different groups according to different criteria. These are reflected in our research and are supported by examples.

- There are similarities and differences in the technical requirements for both languages. Acquisition technical terms have played an important role in the enrichment of technical terms in both languages. However, comparable languages have been adopted from different languages at different times, depending on historical and geographical factors. When we look at the origin of the technical terms in our language, it is clear that at various times, in accordance with the requirements and conditions of the period, the dictionary of the Azerbaijani language includes Arabic and Persian, Russian and European words.

In Russian technical terms, the Arabic-Persian technical terms are insignificant. The study of terms derived from a foreign language shows that certain changes have occurred in both their writing and pronunciation. As there are different systems, the transfer of the term from one language to another requires that it be adapted to the norm. The acquisitions in the terminology of the Azerbaijani language are used in accordance with the language and historically formed language laws and specifications. However, it should be noted that while some of the English-language vocabulary is adapted to the phonetic and grammatical features specific to our language, the other preserves its existing form in the source language and has been used without any modifications in the source language. The terminology of each language is a continuous process of obtaining terms from other languages. This is due to the fact that science and technology do not develop in one country, in a region dominated by a national language. Science can develop in many parts of the world, and as science develops, new discoveries and terms emerge as the discovery is made. In the process of information exchange, those terms go beyond the national framework and provide the basis for the acquisition of terms.

# The main content of the dissertation is reflected in the following theses and articles:

1. Həmidova, M.H. Müasir Azərbaycan dilində termin yaranmasının konversiya üsulu // -Bakı: BSU, Elmi Əsərlər, Dil və ədəbiyyat seriyası, -2018. №1, - s.16-19.

2. Гамидова М.Г. Калькирование парных технических терминов Азербайджанского языка // - Чернігів, Ministry of Education and Science of Ukraine State Scientific Institution «Institute of Education Content Modernization» of MESU Chernihiv National University of Technology (CNUT) International Scientific-Practical Conference of Students and Young Scientists YOUTH SCIENCE – 2018: SOCIO-ECONOMIC AND HUMANITARIAN ASPECTS OF SOCIETY DEVELOPMENT, -11-12 April, -2018 CONFERENCE PROCEEDINGS PART 2 2018 p.248.

3. Həmidova, M.H. Azərbaycan dilində texniki termin yaradıcılığında kalka üsulu və alınma texniki terminlər //

Doktorantların və gənc tədqiqatçıların XXII Respublika elmi konfransı, -Bakı, ADPU, -22-23 noyabr, -2018, -s.155-157.

4. Həmidova, M.H. Termin anlayışı və Azərbaycan və rus dilçiliklərində terminoloji fikir tarixi // - Bakı, Tədqiqlər, -2018. №4, -s.135-149.

5. Həmidova, M.H. Azərbaycan və rus dillərində texniki terminlərin yaranmasının abreviasiya üsulu // -Bakı, Filologiya məsələləri, -2018. №20, -s.171-176.

6. Həmidova M.H. About some specialties of morphology way of technic term forming in Azerbaijan and Russian languages // - Черкаси, Черкаський національний університет імені Богдана Хмельницького, Вісник Черкаського університету, Серія філологічні науки, -2019. №1, -р. 57-62.

7. Həmidova, M.H. Azərbaycan və rus dillərində leksik-semantik yolla yaranan texniki terminlər // -Bakı, Terminologiya məsələləri, - 2019. №1, s.211-221.

8. Həmidova, M.H. Rus dilində texniki terminlərin tarixi inkişaf mərhələləri və mənbələri // Tanınmış türkoloq alim Məhəbbət Mirzəliyevanın 70 illiyinə həsr olunmuş "Azərbaycan dilçiliyinin aktual problemləri" mövzusunda respublika elmi KONFRANSI, -Baku, Azərbaycan Milli Elmlər Akademiyası, İ.Nəsimi adına Dilçilik İnstitutu, -11 oktyabr, - 2019. -s. 146-149.

9. Həmidova, M.H. Rus dilində alınmalar texniki terminlərin zənginləşməsi yolu kimi // - Bakı: BSU, Humanitar elmlərin öyrənilməsinin aktual problemləri, -2019. №4, -s.38-41.

The dissertation defense will be held on  $\frac{28}{16}$  october 2022, at  $\frac{16}{22}$  at the meeting of Dissertation Council ED 2.13 of Supreme Attestation Commission under President of the Republic of Azerbaijan at Baku Slavic University

Address: 33, Suleyman Rustam Street, Baku, Az1014

Dissertation is accessible at the library of Baku Slavic University.

Electronic versions of the dissertation and its abstract are available on the official website of Baku Slavic University.

Abstract was sent to the required addresses on "<u>J6</u>" "<u>reptember</u>" 2022.

Signed to print:16.09.2022 Dimension of paper: A5 Size: 39644 Number of hardcopies: 20