

## PROFESSIONAL EDUCATION

UDC 001.4:629.73-057.4(045)

Natalia Drobysheva

### THE ROLE OF TERMINOLOGY IN THE TRAINING OF AVIATION SPECIALISTS

National Aviation University  
Kosmonavta Komarova prospect, 03680, Kyiv Ukraine  
E-mail: nat.d@list.ru

**Abstract.** The article considers terminology of the aviation language for specific purposes and its role in forming the professional picture of the world and professional communicative competence of students are analyzed. Terms are examined from the cognitive point of view as verbalized concept means of access and transfer of special knowledge.

**Keywords:** professional picture of the world; teaching; term.

#### 1. Introduction

When preparing the aircraft engineer who possesses modern technology, the task of the use of English as a means of obtaining and processing information on the speciality from different sources begins to play a special role. Despite the increase in the international role of the English language, its recognition as a global language barrier is a factor that hinders communication between experts from different countries. The urgency of the task of teaching students professional communication in English in the real world, as well as working with foreign language texts as a model of oral and written communication always increases with time.

Perception and understanding in teaching and engineering communication are based on professional knowledge and largely determined by the presence or absence of community picture of the world, which is formed in the minds of future professionals in the learning process. Professional vision of the world has its own specific character both on the mental, and language levels and is primarily attributable to the professional affiliation.

E.A. Klimov notes that "the scientific picture of the world of the society would be just on the decline without such a subsystem as pictures of the world of professional communities and professions. In its turn, the picture of the world of professions would be incomplete if it overlooks the question of the specificity of the display in the minds of professionals of different types and levels of the confronting them "surrounding" world, environment, the universe [1].

Professional picture of the world of future experts is formed as a result of various processes of learning, based on professional knowledge and skills in the study area, is a certain way ordered information about the given fragment of reality and is defined as a system of concepts, applied to language as a system of terms.

At the level of a professional picture of the world languages of certain areas of science and technology, in other words technical languages, languages for special purposes (LSP) operate. In the aviation industry it is a professional language of aeronautical engineers, air traffic controllers, etc. LSP is a system of language resources of the national language, which are used in the limited professionally field of communication and represent a certain community of special knowledge of a particular profession and expressions in the language.

The main purpose of LSP is to represent conceptual and linguistic picture of a particular area of knowledge, be a repository of knowledge and experience, to serve the provision of the description of the specific area, communication in it and its development [2].

The composition of LSP includes all lexical means that provide understanding between professionals. This is terms, professionalisms, professional jargon and general vocabulary. The most important linguistic component, semantic core of LSP is terms.

The researchers' interest is aimed at studying the role of the term in the professional activities, linguistic structure of the term, the conceptual structure of the terminology, its system organization, etc.

**The aim** of this work is to study the role of terms in professional education and training of future professional aeronautical engineer, air traffic controllers.

#### 2. Problem statement

The standard ISO 1087-1 defines terms as language signs of general notions related to a specific subject field [3], that is, as a characterizing feature of the term its ability to denote specific concepts stands out. The terms semantics is directly related to a particular scientific cognitive or professional activities, presents information about logical generalized and typified attributes, characteristics, types of relations of homogeneous objects, cor-

relates the term not with a single object, but the whole class, subclass, logically related to the meaning of other terms as components of the terminological system, which is a logic-categorical apparatus of a particular specific area, is determined by definitions.

Typical characteristics of terms are objectivity, consistency, accuracy, compact and economical form, high information content, lack of expressiveness.

The main functions of terms are communicative, significant, cognitive, informational, heuristic, systematizing, prognostic, pragmatic.

During the existence of the aviation industry there was produced a large number of scientific and technical concepts – terms, which are a component part of the terminological system. The formation of the terminology of the industry occurred gradually and continues to increase with the growth of scientific and technical knowledge. The conceptual structure of the aviation industry terminology is a tiered hierarchy of the subsumption type and the type of parts to a whole. In the aviation industry highly specialized, industry-specific, general scientific and technical, interindustrial, terms of related sciences, nomenclature units are widely used.

The conceptual structure of the scientific and technical terminology is fixed in the aviation industry standards, recommended terms collections, dictionaries, harmonized with international standards and dictionaries.

The cognitive approach has opened up new possibilities for the study of terms related to their cognitive entities as linguistic units for receiving, presentation, transmission, processing and storage of special knowledge.

From the standpoint of cognitivism, terms are understood as a means of scientific knowledge conceptualization - verbalized concepts [4]; as a result of verbalization of a scientific, technical, economic and wider - special concept [5]; as a process of knowledge of a particular specific area or special activities and terminological knowledge as a complex net [2], as a verbalized result of professional thinking, significant linguistic cultural means of orientation in the professional field and the most important element of professional communication [6].

Since the structures of the special knowledge are presented primarily in terminology, with terms as both a means of access to specialist knowledge and linguistic form of the transfer of this knowledge to others, a way of knowledge transmission, then repeatedly the importance of the role of terms research in academic discourse increases.

The main motive activity of students is the need for professional knowledge. In the educational process in the first place there is the role of the terms in a formal-

ized representation and scientific and technical knowledge transfer.

Assimilation of the terminology is to master the knowledge structures that stand for terms. Academic discourse tasks include didactic and cognitive-pragmatic objectives.

The first and foremost task is to teach students to actively possess terminological vocabulary in English.

An important aspect in students' learning activities is to develop skills in working with terminology dictionaries and consolidation of terminological minimum with the help of specially designed exercises. The glossary of the educational dictionary includes the most common terms of disciplines and covers the main thematic groups based on the semantic generality. For example, first-year students majoring "System Engineering" and "Aeronavigation" must obtain the general technical, sectoral and cross-sectoral terminology on the topic "History of Aviation". "Types of Aircraft", "Aircraft Design", "Helicopter". "Parts of an Aircraft", "Fuselage", "Wing", "Empennage" and "Maintenance of Aircraft and Engines"; "Types of Engines", "The Laws of Aerodynamics", "Main Causes of Failure of an Aircraft", "The Powerplant", "Types of Engines"; "Electric Current" – "Characteristics", "Conductors", "On Board Power Supply", "Units of Measurement of Electric Current", "Natural Energy Sources", "Measuring Equipment"; "International Civil Aviation Organizations", "New Achievements in the Industry".

In the process of teaching the didactic principle "from simple to more complex" is commonly used. When considering any new term at the given stage of training as a reference material already known or discussed in the previous stages terms are added.

The description of professional vocabulary is systematically applied with the study of patterns of functioning and presentation of paradigmatic relations of its units. For the selection and proper use of the term information about the term, its meaning, equivalent, collocability, etc. is considered. Terms and their definitions are studied with regard to their structure (both linguistically and conceptually).

Learner's dictionary is formed as a professional specialist's thesaurus. For each term of the glossary a number of terms reflecting the hierarchy of terms, the relationship between them are selected. The objective of the study includes the development of the brief generic definition of the term, the establishment of the definition volume, definition of the place of the notion in the system of notions, summarizing the term under well-known broad categorical universal concepts such as: method, process, system, apparatus, appliance, machine, struc-

ture, mechanism and etc. (for example: *aircraft, airplane, air-IL-18*).

Such lexical-semantic series implement a process of generalization and specificity inherent in human thinking, they can be built for any term [7]. Work on the terms should provide a strong and conscious assimilation of the material on the future speciality and the ability to properly and freely use the terms in students' speech, including all kinds of communicative activities: speaking, listening, reading and writing.

As a result of study, students must obtain such a level of communicative competence that is sufficient for communication with foreign specialists, so that they can understand and produce foreign-language statements on special subjects in accordance with the specific situation.

Obtaining the terminology positively impacts the linguistic and intellectual development of students.

### 3. Conclusions

Thus, the strong acquisition of the aviation terminology including terminology in a foreign language by students, is considered as an important prerequisite for the acquisition of students' professional competence as a basis for successful professional communication activities and as one of the most important stages of intellectual development, the formation of an important element of specialist's professional picture of the world in students' minds.

### References

[1] *Klimov E.A.* Image of the world in professions of different type. Moscow, MGU, 1995. P. 20. (In Russian).

[2] *Novodranova V.F.* Methods of cognitive analysis in the study of language for specific purposes. Terminology and knowledge. Proceedings of the III International Symposium. Moscow, West Consulting, 2013. P.11-18. (In Russian).

[3] ISO 1087-1:2000 (E/F) Terminology Work – Vocabulary – Part 2 : Computer Applications. Geneva: ISO.

[4] *Ratsiburskaya L.V.* Pragmatic aspects of synonymy of terms, morphemics and derivation. Terminology and knowledge. Proceedings of the I International Symposium. Moscow, 2009. P.179-188. (In Russian).

[5] *Shelov S.D.* The new paradigm of terminology – some prospects. Terminology and knowledge. Proceedings of the III International Symposium. Moscow, West Consulting, 2013. P.54-60. (In Russian).

[6] *Novodranova V.F.* New approaches to the definition of the basic concepts of terminology. New Russia: New developments in language and language science: Russian Scientific Conf. Ekaterinburg, Publishing House of the Ural University Press, 2005. P. 218-223. (In Russian).

[7] *Drobysheva N.L.* Repeated naming units in scientific and technical periodicals texts. Scientific notes of V.I. Vernadsky Taurida National University. Series: "Philology. Social Communications". 2010. Vol. 23 (62). P. 185-190. (In Russian).

Received 24 June 2015.

#### **Н.Л. Дробишева. Роль термінології в професійній підготовці авіаційних фахівців**

Національний авіаційний університет, просп. Космонавта Комарова, 1, Київ, Україна, 03058

E-mail: nat.d@list.ru

Проаналізовано термінологію мови для спеціальних цілей авіаційної галузі та її роль у формуванні професійної картини світу й професійної комунікативної компетенції студентів. Терміни розглянуто з когнітивних позицій як вербалізовані концепти засобу доступу і передачі спеціального знання.

**Ключові слова:** навчання; професійна картина світу; термін.

#### **Н.Л. Дробишева. Роль терминологии в профессиональной подготовке авиаспециалистов**

Национальный авиационный университет, просп. Космонавта Комарова, 1, Киев, Украина, 03058

E-mail: nat.d@list.ru

Проанализированы терминология языка для специальных целей авиационной отрасли и ее роль в формировании профессиональной картины мира и профессиональной коммуникативной компетенции студентов. Термины рассмотрены с когнитивных позиций как вербализованные концепты средства доступа и передачи специального знания.

**Ключевые слова:** обучение; профессиональная картина мира; термин.

**Drobysheva Natalia.** PhD in Philology. Associate Professor.

National Aviation University, Kyiv, Ukraine.

Education: Kyiv Slavonic University, Kyiv, Ukraine.

Research area: social linguistics, cognitive linguistics.

Publications: 8.

E-mail: nat.d@list.ru