

LEASECON 2020**International Conference «Land Economy and Rural Studies Essentials»****PROPOSING A CONCEPTUALIZATION OF TERMINOLOGICAL
TRAINING IN VETERINARY EDUCATION**

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Abstract

Agrarian universities play a significant role in the delivery of quality veterinary medicine by means of professional training. Special attention should be paid to terminological training of future specialists in veterinarian education. However, there is no systemic approach to realisation of terminological training in university practices. The purpose of the study is to provide a theoretical framework for terminological training of specialists in veterinarian education. The research was carried out on the basis of systemic and person-centred approaches. The concept of terminological training of veterinarians has been specified as a three-stage continuing process of developing the conceptual and terminological apparatus in the field of veterinary medicine, expertise and research work and its practical application in solving academic, professional and research tasks accompanied by the development of specialists' motivation to constantly improve their professional language for continuous professional self-development. The aim of terminological training is to develop sequentially terminological literacy, terminological competence, and terminological culture in veterinarians. The content of terminological training is comprised of three directions: cognitive (the formation of a conceptual and terminological apparatus of specialists), practical (the formation of skills to use professional terminology to solve academic, professional and research tasks), and motivational (the development of high motivation to learn and improve the professional language for continuous professional self-education). The novelty of the study is associated with the conceptualization of terminological training in relation to its content and outcomes in veterinary education.

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Keywords: Terminological training, terminological literacy, terminological competence, terminological culture, veterinary education



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1. Introduction

Professionalism of veterinarians can be measured by the level of proficiency in terminological knowledge and skills in veterinarian environments. Professional terminology plays a vital role in interactions of veterinarians with colleagues or owners of animals. On the international arena, it promotes successful collaboration between practitioners and researchers representing different professional traditions in the field of veterinary medicine. Besides, professional terminology ensures the continuity of veterinary knowledge and skills and the development of scientific paradigms. Terminological training pursues various objectives at different stages of specialist training and continuing professional development. At the early stage of veterinary education, terminology is a source of new knowledge, an instrument for shaping a scientific picture of the world and gaining experience in the learning environment. In the final years of graduate and postgraduate studies, in the internship, or in the workplace, terminology serves for purpose of professional communication and interaction between specialists and further professional development. In addition, every successful professional in the workplace inevitably faces the need to develop their terminological thesaurus (Shidlovskaya, 2019). Moreover, specialists arrive at understanding of openness of terminological systems, when some terms become obsolete and there is a need in updating certain terminological areas (Mozgovoi et al., 2019). There are professional communication situations in veterinary work when professionals have to choose a term from a number of existing ones, or in some cases, they have to create their own terms according to certain models and rules. Meanwhile, the level of terminological knowledge and skills tends to decrease (Murashko, 2013; Musokhranova et al., 2019). There are several reasons for that. Most commonly, it is due to the fact that there is no terminological cohesion between specialized and humanitarian disciplines in university practices. Vet Specialist programmes have an insufficient number of credit hours for the Latin language. Students demonstrate low motivation to acquiring professional language skills, unwilling to use dictionaries and reference books in the self-study work. All these factors lead to the lack of understanding of the cultural aspect of terminology, as well as ignorance of the etymology and rules of term formation. As a result, there are situations of miscommunications in academic and professional settings. Therefore, the issue of terminological training is of utmost importance in veterinary education.

The literature review on the issues of terminological training in universities allows us to make a conclusion about a significant contribution to the development of theoretical and practical aspects of this problem of the following researchers: O.V. Artyushkin, J.M. Barakhoeva, N.V. Bordovskaya, I.N. Churilova, A. Coxhead, J.E. Ermolaeva, E. Jata, O.N. Igna, E.A. Koshkina, B. Quero, E.G. Skibitsky, E.Ya. Sokolova, M.A. Tikhomirova, S.Kh. Visegurov, et al.

The essential characteristics and functions of terminological competence are described in the works of Bordovskaya and Koshkina (2016a; 2016b). Tikhomirova (2017) studied the motivational factors of developing terminological competence in teachers' education. Jata (2018) has proved the effectiveness of the communicative approach to teaching professional terminology in the agriculture settings. National and international specifics of professional terminology in economics have been studied in relation to the development of the professional and terminological culture of specialists (Zueva & Kralova, 2019). Professional language skills and terminology knowledge in the veterinary context can be

improved substantially with the development of soft skills in students (Kulamikhina et al., 2019; 2020). The integration of specialized and humanitarian disciplines can considerably enhance the development of the professional language (Kucirkova et al., 2017).

2. Problem Statement

Literature review shows that little research has been carried out to analyze the principles and systemic characteristics of the concept of terminological training. In our work, an attempt is made to conceptualize terminological training of specialists as a system of the interconnected components and outcomes in veterinarian education.

3. Research Questions

In accordance with the problem of our study, we put the following research questions: 1. What are the stages and outcomes of terminological training of specialists? 2. What are the main content directions of terminological training?

4. Purpose of the Study

The purpose of our study is to provide a theoretical framework for terminological training of specialists in veterinarian education. In accordance with the purpose of the study, we set the following tasks:

1. to specify the concept of “terminological training of specialists”;
2. to identify the stages and of terminological training in veterinary education;
3. to identify the outcomes and their structural components of terminological training;
4. to define the content of terminological training in veterinary education.

5. Research Methods

The study of terminological training is based on the systemic and person-centred approaches. Literature analysis on the concepts related to terminological training (Bordovskaya & Koshkina, 2016a; 2016b; Ermolaeva, 2014; Tikhomirova, 2017), the ideas about the content of the terminological competence of a specialist (Bordovskaya & Koshkina, 2016b), the ideas about the successive educational outcomes (Gershunsky, 1998) are methodologically important for conceptualization of terminological training.

6. Findings

Literature analysis shows that the concept of terminological training is closely related to a number of similar concepts such as “terminological potential”, “terminological awareness”, “terminological

literacy”, “terminological competence”, and “terminological culture”. Often, researchers use these concepts as interchangeable, interpreting them in a similar way as an “integral professional and personal characteristic”, “skill”, “ability” or “willingness” of a specialist to apply terms in a particular field of knowledge to solve professional problems. However, other scholars differentiate these concepts, highlighting their specific content (Bordovskaya & Koshkina, 2016b; Ermolaeva, 2014; Sokolova, 2014; Tikhomirova, 2017). According to Ermolaeva (2014), terminological awareness is the initial stage of development of the terminological potential of a person, and terminological competency is an integral characteristic of a specialist, reflecting not only the level of knowledge, skills, experience sufficient to achieve the goals in professional activities, but also their social and moral values (Ermolaeva, 2014). Bordovskaya and Koshkina (2016a) point out that terminological and profession-related communication practices are very important for the development of terminological competence in specialists during their university studies and further in their carrier.

According to Gershunsky (1998), the personal development can be fixed through a range of successive educational outcomes: literacy, knowledge and awareness, professional competence, culture and mentality. Using Gershunsky’s terminology, we distinguish three stages in terminological training of specialists: the stage of terminological literacy, the stage of terminological competence and the stage of terminological culture.

These stages correspond to successive outcomes in terminological training. Future specialists acquire terminological literacy during their initial years of studying at university. Through their theory studies and communication practices, they develop their knowledge of terminology and ability to competently apply it in academic settings. The next stage in terminological training is aimed at the development of terminological competence, which is defined as the ability and willingness to correctly apply terminology in profession-related contexts and in the process of professional communication (Bordovskaya & Koshkina, 2016b). The terminological culture of a specialist as the outcome of the final stage of terminological training includes the development of a conceptual and terminological apparatus at the level that allows successful communications on professional arena, in research activities and everyday life (Ermolaeva, 2014).

Thus, terminological training is a three-stage continuing process of forming and enriching the conceptual and terminological apparatus and its practical application in solving academic, professional and research tasks with the successive outcomes, accompanied by the development of specialists’ motivation to constantly improve their professional language for continuous professional self-development.

The next important issue is to describe structural components of terminological training outcomes. In our opinion, the frameworks of terminological literacy, terminological competence and terminological culture are of a similar type. Based on Bordovskaya and Koshkina’s (2016a; 2016b) model of the terminological competence, we distinguish three interrelated structural components: cognitive, practical and reflective.

The cognitive component is represented by the knowledge of active personal profession-related terminological vocabulary that forms the conceptual and terminological apparatus of a specialist in the field of veterinary medicine, expertise and research work.

The practical component is represented by skills to use terminology to solve academic, professional and research tasks in situations of oral and written communication on the topics of animal health, animal diseases, veterinary control and examination, peculiarities of veterinarian work.

The reflective component combines practical experience of using terminology in academic, professional and research communicative situations, the need of a specialist for acquiring new terms and motivation to further professional development through improving their professional language.

The three components can be revealed through the following learning categories: knowledge, skills and motivation. The structural components of all terminological training outcomes are typical, but they are different in the depth of relevant knowledge, skills, experiences and motivation of specialists. The outcomes of terminological training of specialists are described at the three stages in Table 01.

Table 1. The description of structural components of outcomes and their indicators at the three stages of terminological training

Structural components	Indicators	Terminological literacy	Terminological competence	Terminological culture
Cognitive component	Recognising and understanding of terms and term elements	Recognising and understanding of terms and term elements according to contents standards.	Recognising and understanding of terms and term elements in full in academic and professional settings.	Full awareness of the conceptual and terminological apparatus in professional and scientific settings.
	Knowledge of term formation	Having knowledge of most common rules of term formation; having difficulty in building a term from term elements.	Having knowledge of basic rules of term formation; having an ability to build a term from term elements.	Having a full knowledge of rules of term formation; having an ability in building a term from term elements to describe profession-related objects and phenomena.
	Ability to systematize and classify terms	Having difficulty in systematizing and classifying terms due to the lack of full professional knowledge in first years of studying.	Having a well-developed ability to systematize and classify professional terms.	Having a well-developed ability to systematize and classify professional and scientific terms.
Practical component	Ability to adequately use professional terminology in the process of verbal communication on professional topics; ability to use terms and term elements in the studies.	Having an ability to use limited professional terminology in academic communication; having difficulty in using terms and term elements in first years of studying profession-related disciplines.	Having an ability to use professional terminology in academic and professional communication; having an ability to use terms and term elements in the studies.	Having a well-developed ability to use professional terminology in professional and scientific communication; having a well-developed ability to use terms and term elements for professional development.

	Recognising and understanding of terms in academic and professional communication or reading professional or scientific texts.	Having difficulty in recognising and understanding of terms in academic and professional communication or reading professional texts with general understanding of information without any details.	Full recognising and understanding of terms in academic and professional communication or reading professional texts with full understanding of information.	Full recognising and understanding of terms in professional and scientific communication or reading professional or scientific texts with full understanding of information.
	Ability to systematize professionally relevant information by classifying terms.	Having difficulty in systematizing professionally relevant information by classifying terms.	Having an ability to systematize professionally relevant information by classifying terms.	Having a well-developed ability to systematize professional and scientific information by classifying terms.
	Understanding of the correctness or difficulties in using special terminology in the process of academic, professional or scientific communication.	Understanding of the correctness or difficulties in using special terminology is limited by academic settings.	Understanding of the correctness or difficulties in using special terminology in academic and professional settings.	Full understanding of the correctness or difficulties in using special terminology in professional and scientific settings.
Reflective component	Motivation to use specialized literature or Internet resources when working with new terms.	Having motivation to use specialized literature or Internet resources when working with new terms for academic purposes.	Having high motivation to use specialized literature or Internet resources when working with new terms for academic and professional purposes.	Having high motivation to use specialized literature or Internet resources when working with new terms for professional development.
	Motivation to further professional self-development through improving the professional language.	Having motivation to academic-development through learning the professional language.	Having high motivation to professional development through mastering the professional language.	Having high motivation to professional and scientific development through improving the professional language.

The system of terminological training consisting of the three successive stages should be implemented with due consideration of the professional context. For example, future veterinarians can be engaged in vet practices from the first years of studying, so they have to get the knowledge of the most common terms, term elements and concepts which are needed in practice immediately, and with an expansion of their professional activities, their knowledge of conceptual and terminological vocabulary will be enriched.

The description of the structural components of outcomes allows us to define the content of terminological training which includes three main content directions: cognitive, practical and

motivational. The cognitive content is aimed at the formation of a conceptual and terminological apparatus of specialists. The aim of the practical content is the formation of the skills to use the conceptual and terminological apparatus for solving academic, professional and research tasks. The motivational content is aimed at the development of high motivation to learn and improve the professional language for continuous professional self-education.

7. Conclusion

The purpose of the study was to develop the system of terminological training of specialists in veterinarian education. On the basis of the literature review, we proposed a specific definition of the concept of terminological training in veterinary education as a three-stage continuing process of forming and enriching the conceptual and terminological apparatus of a specialist in the field of veterinary medicine, expertise and research work and its practical application in solving academic, professional and research tasks accompanied by the development of specialists' motivation to constantly improve their professional language for continuous professional self-development.

The process of terminological training includes three stages aimed at the development of the successive outcomes: terminological literacy, terminological competence, and terminological culture. The content of terminological training is defined in the three directions: cognitive content (the formation of a conceptual and terminological apparatus of specialists), practical content (the formation of skills to use professional terminology to solve academic, professional and research tasks), and motivational content (the development of high motivation to learn and improve the professional language for continuous professional self-education).

References

- Bordovskaya, N. V., & Koshkina, E. A. (2016a). Structural-functional model of terminological competence of a specialist. *Bulletin of St. Petersburg State University. Series 16. Psychology. Pedagogy*, 4, 97–109. <https://doi.org/10.21638/11701/spbu.2016.2016.408>
- Bordovskaya, N. V., & Koshkina, E. A. (2016b). Terminological competence of a specialist: manifestation and levels of development. *Man and Education*, 3(48), 4-11.
- Ermolaeva, Z. E. (2014). Formation of the terminological culture of cadets and students of the Academy of the State Fire Service of the Ministry of Emergencies of Russia for the training direction "Fire Safety". *Historical and Socio-Educational Thought*, 6(6), 85-88.
- Gershunsky, B. S. (1998). *Education philosophy for the 21st century (in search of practice-oriented educational concepts)*. Moscow, Sovershenstvo.
- Jata, E. (2018). Teaching ESP terminology - case study agricultural university of Tirana. *European Journal of Language and Literature Studies*, 4(4), 22-27.
- Kucirkova, L., Alipichev, A. Y., Vasbieva, D. G., & Kalugina, O. A. (2017). Teacher's role and students' role in English for specific purposes in e-learning. *XLinguae*, 10(2), 63-77.
- Kulamikhina, I. V., Esmurzaeva, Z. B., Marus, M. L., & Zhbikovskaya, O. A. (2019). Developing Soft Skills in Veterinary Students in the ESP Class: Teaching Approaches and Strategies. *Advances in Social Science, Education and Humanities Research*, 393, 445-449.
- Kulamikhina, I., Esmurzaeva, Z., Marus, M., & Zakotnova, P. (2020). Pedagogical Technologies for Developing Visual Literacy in Veterinary Students in the Profession-Related Foreign Language Class. *Siberian Pedagogical Journal*, 18, 103-110. <https://doi.org/10.15293/1813-4718.2002.12>

- Mozgovoi, S., Abrosimova, E., & Kononov, A. (2019). Is fluid biopsy a biopsy: vocabulary and usage. *Virchows Archiv*, 475, 361-361.
- Murashko, L. I. (2013). Problems of terminological literacy in geology. Proceedings from VII University Geol. Readings: *Problems of Regional Geology and Mineral Exploration*. Minsk: Publ. BSU Center. <http://elib.bsu.by/handle/123456789/94423>
- Musokhranova, M. B., Orlyanskaya, T. Y., & Nesterova, K. I. (2019). Pedagogical approaches to the formation of the basics of terminological literacy as a condition for maintaining the continuity of biomedical knowledge. *Modern Problems of Science and Education*, 3.
- Shidlovskaya, O. V. (2019). Terminological literacy as an important component in the formation of the professional competence of a future doctor (based on the Latin clinical terminology of transplantology). *Journal of Grodno State Medical University*, 17(4), 474-477. <https://doi.org/10.25298/2221-8785-2019-17-4-474-477>
- Sokolova, E. Y. (2014). Formation of the basics of terminological literacy in the process of teaching a professional foreign language. *World of Linguistics and Communication*, 1, 71-76. <http://www.tverlingua.ru>
- Tikhomirova, M. A. (2017). *Psychological factors for students to master didactic terminology* (Dissertation of Candidate of Psychological Sciences). St. Petersburg.
- Zueva, E. A., & Kralova, Z. (2019). Intercultural approach as a prerequisite for economics students to form an accurate professional thesaurus. *International Journal of Applied Exercise Physiology*, 8(2.1), 317-323.