

## СУЧАСНІ АСПЕКТИ ЛІНГВОДИДАКТИКИ

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### ELEMENTS OF COMPUTER LEXICOGRAPHY IN AGRICULTURAL MANAGERS EDUCATION

Метою дослідження є розкриття специфіки застосування комп'ютерної лексикографії для підготовки фахівців-менеджерів в умовах сучасного вишу аграрного профілю. Для досягнення мети використано комплекс методів: теоретичні: порівняння та узагальнення (вивчення ступеня наукової розробленості терміну «комп'ютерна лексикографія»), аналіз, синтез та узагальнення даних психологічної, педагогічної і методичної літератури, теоретичне прогнозування і моделювання застосування комп'ютерної лексикографії для визначення наукових засад досліджуваної проблеми; емпіричні: діагностичні методи (бесіди, інтерв'ю з викладачами, анкетування, аналіз продуктів професійної діяльності викладачів, які забезпечують дисципліни філологічного спрямування в навчально-виховному процесі менеджерів аграрного профілю).

Аналіз проблеми показав недостатнє її висвітлення в сучасних наукових працях. У статті охарактеризовано роль дисциплін філологічного циклу в професійній підготовці здобувачів вищої освіти спеціальності «Менеджмент»; означено термін «комп'ютерна лексикографія» та виокремлено її типологію; визначено умови впровадження комп'ютерної лексикографії в навчально-виховний процес вишів аграрного спрямування; проаналізовано програмне забезпечення для впровадження елементів комп'ютерної лексикографії в підготовці фахівців-маркетологів в аграрному виші; розкрито позитивні та негативні сторони застосування комп'ютерної лексикографії як складової навчально-виховного процесу. Отримані результати дають змогу поглибити знання майбутніх фахівців у галузі менеджменту, розширити коло інтересів здобувачів вищої освіти, сприяти роботі студентів зі спеціальною термінологією, систематизувати здобуті знання, підвищити якість організації філологічних дисциплін за рахунок впровадження інформаційно-комунікаційних технологій.

*Ключові слова: комп'ютерна лексикографія, менеджмент, філологічні дисципліни, інформаційно-комунікаційні технології, аграрний сектор.*

Целью исследования является раскрытие специфики применения компьютерной лексикографии для подготовки специалистов-менеджеров в условиях современного вуза аграрного профиля. Для достижения цели использован комплекс методов: теоретические: сравнение и обобщение (изучение степени научной разработанности термина «компьютерная лексикография»), анализ, синтез и обобщение данных психологической, педагогической и методической литературы, теоретическое прогнозирование и моделирование применения компьютерной лексикографии для определения научных основ исследуемой проблемы; эмпирические: диагностические методы

(беседы, интервью с преподавателями, анкетирование, анализ продуктов профессиональной деятельности преподавателей, обеспечивающих дисциплины филологического направления в учебно-воспитательном процессе менеджеров аграрного профиля).

Анализ проблемы показал недостаточное ее представление в современных научных работах. В статье охарактеризованы роль дисциплин филологического цикла в профессиональной подготовке соискателей высшего образования специальности «Менеджмент»; обозначен термин «компьютерная лексикография» и выделена ее типология; определены условия внедрения компьютерной лексикографии в учебно-воспитательный процесс вузов аграрного направления; проанализировано программное обеспечение для внедрения элементов компьютерной лексикографии в подготовке специалистов-маркетологов в аграрном вузе; раскрыты положительные и отрицательные стороны применения компьютерной лексикографии как составляющей учебно-воспитательного процесса. Полученные результаты позволяют углубить знания будущих специалистов в области менеджмента, расширить круг интересов соискателей высшего образования, упростить работу студентов со специальной терминологией, систематизировать полученные знания, повысить качество организации филологических дисциплин за счет внедрения информационно-коммуникационных технологий.

*Ключевые слова: компьютерная лексикография, менеджмент, филологические дисциплины, информационно-коммуникационные технологии, аграрный сектор.*

Improving the teaching of a foreign language with the help of information and communication technologies involves the main emphasis on the competence approach. This approach assumes that the main purpose of training is the formation of foreign language communicative competence. The implementation of this approach requires the transformation of the traditional teaching system into a learning system in which the applicant acts as an active and highly motivated subject. The teacher organizes the student's learning activities and manages it, stimulating the development of creativity, which is so necessary for future innovation.

Successful teaching of a foreign language to agricultural managers involves taking into account such characteristics as compliance of the program with the specialty and modern requirements of higher education, building mutually beneficial interaction between teacher and student, authenticity of communication, balance and systematization of quality requirements, adaptation of educational resources in accordance with the information environment.

The using of elements of computer lexicography in the educational process of agricultural universities has become an integral part of the formation of foreign language competencies of future professionals.

The field of science that studies the problems of realization of lexicography tasks with the help of electronic devices is characterized by different terms: electronic linguistics, engineering linguistics, algorithmic linguistics, etc. The term «computer lexicography» appeared in science in the 1960s during the separation of the field of electronic dictionaries. This philological term and the peculiarities of its implementation in the teaching of modern philological disciplines are insufficiently studied, because in the field of scientific thought computer lexicography was given little attention until the early 1990s. The initial term that characterized the work with electronic translation tools was the term «machine-readable dictionary» means that data from the dictionary (in electronic form) can be processed and researched using computer technology.

Scientist Yu.N. Marchuk called the field of interaction between philology and information and communication technologies "Computer Linguistics". The combination of computer linguistics and lexicography distinguishes computer lexicography, the formation of which is based on the basic laws of classical lexicography. That is why computer lexicography is defined as «a branch of lexicography in which theoretical and practical issues related to computer dictionaries are considered» [Marchuk, 2007].

Theoretical problems of computer linguistics have been studied for a long time. In 1980, the Association of Computer Linguistics was founded as a scientific and professional community of international importance.

Some issues of application of computer lexicography in the educational process of higher educational institutions and the creation of electronic dictionaries can be found in the works of such Ukrainian and foreign researchers as N.P. Darchuk [Darchuk, 2008], V.N. Selegey [Selegey, 2011], Barbara Ann Kiper [Kiper, 2010], Carolyn Mueller-Spitzer [Müller-Spitzer, 2014] and others.

There is no single meaning of the concept of electronic dictionary among researchers. For example, Ye V. Perebyinis interprets this term as «a dictionary compiled with the help of a computer» [Perebyinis, 2009].

I. Zavarueva gives a broader definition: «An electronic dictionary is a computer database of records specially coded to facilitate the search for words taking into account the morphological form and with the ability to search for phrases (use of words) and change the direction of translation» [Zavarueva, 2017]

The development and formation of modern computer lexicography is greatly influenced by new methods of information processing, which have become a condition for the emergence of dictionaries of completely new types.

The purpose of the article is to characterize the features of the introduction of computer lexicography in the training of future agricultural managers in higher education.

The strategy of successful teaching of a foreign language using electronic resources to future managers includes the selection of the optimal combination of techniques that would help students master various forms and methods of foreign language activities (including written, oral, extralinguistic) necessary for professional tasks. The construction of the educational process taking into account innovative methods and technologies of teaching foreign languages, implementation of complex methodical and software of philological disciplines, development and systematization of various types of electronic means of study (text-books and manuals), accompanying electronic materials is very important in the modern information society.

Successful teaching of foreign language philological disciplines to future managers of the agricultural sector involves the use of a full range of methods. The best results are achieved by combining different methods and forms of organization of the educational process. Each of the methods has advantages and disadvantages for a specific audience, and the teacher's task is to maximize the use of the first and minimize the second in each of the methods.

In the system of training managers of Poltava State Agrarian University, the process of learning English includes a professional English course (English for Specific Purposes), which contains elements of basic English language course and a system of specialized tasks and vocabulary, which helps to deepen students' professional knowledge and skills. The curriculum of the specialty «Management» also provides for the study of the discipline «Business Foreign Language», which considers the specifics of working with business documentation and business communication and provides for the formation of all types of competencies.

The complex application of modern methods, forms and information and communication technologies allows to qualitatively form professional foreign language competencies through the system of disciplines «Foreign language (for professional purposes)» and «Business foreign language». The study of disciplines of philological orientation involves the use of a systematic set of methods, forms and means of teaching for the thorough formation of foreign language competencies and the formation of future managers as specialists (Table 1).

Analysis of applied software for foreign languages for future managers of agricultural areas showed that a difficult task for the teacher is to select such software that corresponds to the content of disciplines of philology and allows to form, deepen the necessary skills or abilities. This is facilitated by the powerful capabilities of information and communication technologies, which can significantly accelerate the implementation of long-term operations, avoid complex calculations, automate the verification and registration of results and focus the attention of higher education students on solving the situation.

For ensuring high-quality acquisition of knowledge in the disciplines of foreign philological direction «Foreign language (for professional purposes)» and «Business foreign language» in the training of future agricultural marketers and simplification, automation of the educational process will be appropriate to use computer lexicography.

Table 1

**Methods, forms and means of teaching for the thorough formation of foreign language competenc**

Course title	Teaching methods	Forms of organization of the educational process	Means of study	Competences
Foreign language (for professional purposes)	<p>Traditional: story, conversation, work with a book, written presentation, laboratory work, analysis of presentations. Special: case method, problem-searching, scribing, Guided discovery, Computer lexicography</p>	<p>Laboratory classes, independent work, consultation, project defense, pair survey, group work</p>	<p>Textbooks, manuals, audio-video equipment, electronic software, multimedia</p>	<p>Application of conceptual and basic knowledge, understanding of the subject area and professional the manager. Implementation of oral and written professional communication in state and foreign languages. Appreciation and respect for diversity and multiculturalism, ability to work in an international context. Ability to create and organize effective communications in the management process</p>
Business Foreign Language	<p>Traditional: story, conversation, work with a book, written presentation, laboratory work. Special lexical (Lexical Approach), method of functions (Functional Approach), communicative methods (Communicative Approaches), language learning through integration (Content and Language) Integrated Learning), Computer lexicography</p>	<p>Laboratory classes, independent work, pair and group work, creation and defense of projects, writing scientific articles, participation in student conferences.</p>	<p>Textbooks, manuals, audio-video equipment, electronic software, electronic textbooks and manuals, multimedia</p>	<p>Knowledge of various aspects of culture and language behavior in the domestic and professional environment. Possession of lexical material related to business communication, management and stylistic features of office work. Using basic means of communication to combine utterances into a clear, logically integrated discourse. Ability to prepare and produce business and professional correspondence. Analyzing English-language sources of information to obtain data that are necessary to perform professional tasks and make professional decisions. Effective communication in the academic and professional environment, which should be manifested in different types of speech behavior</p>

Computed lexicography is a branch of applied linguistics aimed at creating computer dictionaries, linguistic databases and developing programs to support lexicographic works. The main tasks of computer lexicography are to determine the structure of the dictionary and areas of the dictionary article, the development of principles for compiling different types of dictionaries.

An electronic dictionary is a special lexical graphic characterized by a nonlinear text structure (the volume of which depends on the user's queries), internal and external search, harmonious combination of different types of information (phonetic, semantic, encyclopedic, etc.), containing input, verbal and nonverbal means. presentation of information and the ability to communicate with other information resources [Kupriyanov, 2015].

Automatic dictionaries intended for the average user are often computer analogues of known regular dictionaries, for example:

- Oxford English Dictionary;
- Collins Automatic English Explanatory Dictionary or Online Etymological Ductionary.

Online dictionaries of this type almost repeat the structure of ordinary dictionaries, but they have access to functions that are not typical of their traditional prototypes. Electronic dictionaries have the following special functions: they sort data by dictionary fields, perform an automatic search of all vocabularies that have a certain semantic component in the interpretation, and so on.

In the context of the content of philological disciplines, it is possible to use electronic dictionaries for sorting and isolating professional terms by future specialists in the specialty «Management», finding the most appropriate synonymous equivalents, speeding up translation through technological and software tools, creating special electronic dictionaries for the marketing industry, sorting them by areas of application.

Online dictionaries usually contain an alphabet in their structure with hyperlinks under each letter that go to the corresponding pages of the dictionary. This function contributes to the systematization of special terms in the study of foreign languages by agricultural specialties. Hyperlinks also make it easy to link different dictionaries to each other. Having received the necessary information, for example, about the meaning of the word "company", the user can click on the link in the comments of this word in other dictionaries and learn the features of its interpretation in special fields of knowledge (terminological dictionaries) or get additional linguistic information about its form. Almost every modern electronic dictionary contains an automatic search function, which allows future managers to save a lot of time and effort while working with special terminology.

Some modern e-dictionaries have special functions, for example, the ABBYY Lingvo electronic multilingual dictionary provides a learning function (ABBY Lingvo Tutor), which allows students to memorize words selected on a specific topic and presented in pairs, compile new dictionaries and dictionary cards, save learning outcomes in a file, etc.

During the development of contemporary electronic dictionaries with economic terminology distinguish linguistic, encyclopedic and intermediate (linguistic and terminological). Linguistic dictionaries describe the economic terms themselves, their meanings, features of use, structural properties, compatibility, comparison with lexical systems of other languages. Encyclopedic dictionaries describe economic concepts, facts and realities of the world. The intermediate type of dictionaries combines the characteristics of both types of dictionaries.

Encyclopedic electronic dictionaries containing special agro-economic and financial terminology include the British encyclopedia, encyclopedic economic dictionaries.

Examples of special purpose electronic translation dictionaries for managers are ABBYY Lingvo, Multitran, Merriam Webster electronic explanatory dictionaries, dictionary of economic terms, dictionaries of financial terms and economic concepts, etc.

Multilingual computer dictionaries are created on the basis of texts using the means of automatic processing and search of dictionary units. To perform this task, special programs are involved. The most important programs for creating a special electronic dictionary of management are databases, computer files, word processing programs that allow students to automatically generate dictionary articles, store dictionary information and process it.

Creating an electronic dictionary by A.N. Baranov, provides the following main stages [Baranov, 2011]: the formation of texts and in parallel the creation of a dictionary; automatic gen-

eration of examples; writing dictionary articles; introduction of dictionary articles in the database (DB); editing dictionary articles in the database; proofreading of the text in the database; selection of the dictionary text and formation of the original layout; download of vocabulary information.

Gilles Morris uses in his electronic typological dictionaries such parameters as: form (online dictionaries on the Internet and dictionaries in electronic form distributed on a CD), placement of information (text and hypertext dictionaries). Hypertext dictionaries can be creolized (containing non-linguistic elements such as pictures, audio and video) and non-creolized dictionaries.

The presented structure of creating an electronic dictionary can be adjusted depending on its type, research principles and other factors. But in any case, the use of computers and ready-made texts in computer lexicography can reduce the number of stages in the process of creating an electronic dictionary and save time on almost every one of them.

In modern computer lexicography in the teaching of disciplines of philological profile to future managers instead of creating a dictionary card using databases. Database records allow students to automatically sort the array by selected parameters, select the desired examples, combine them into groups.

There are almost no specialized software shells for lexicographic purposes on the market. D-Base, ACCESS, FOX-Base or PARADOX databases are used to create modern electronic dictionaries.

Modern computer programs make it possible to select word equivalents from texts stored in machine format on a computer in automatic mode. The search for word equivalents is called concordance construction. Some computer concordance programs can convert found contexts into database records. For example, the DIALEX program allows student managers to receive concordances both in the traditional form (as a file for a text editor) and in the PARADOX database format.

Publishing systems such as Page-Maker or WinWord are used to create the original layout of dictionaries, which allow formatting of dictionary styles, alphabetization, creation of numbering, indexes, etc.

An example of a specialized computer program designed for computer lexicography is the "Program of automated compilation and processing of dictionaries". This program is widely used in philological research and applied linguistics.

The selection of special software for the use of elements of computer lexicography for the training of future managers of agricultural areas requires thorough philological and information and communication training and helps to improve the formation of language competencies in higher education.

The use of computer lexicography in the training of future managers of the agricultural field has a number of significant advantages:

- electronic dictionaries allow to present the content of a dictionary article in different ways (different «projections» of the dictionary), including with the help of various graphic and multimedia tools that are not used in ordinary dictionaries;
- the information published by dictionaries covers various technologies of computational linguistics, such as morphological and syntactic analysis, full-text search, recognition and synthesis of sound, etc;
- increases the speed of receiving and processing information contained in the dictionary and directly corresponds to the request, which is formulated by the user in a convenient form;
- electronic dictionary allows students to respond quickly to language changes and special terms, the release of each subsequent version or making changes to the online version does not take much time.

In turn, the use of computer lexicography in the training of future managers of agricultural areas contains unresolved issues relevant to both traditional and computer lexicography. The problem of describing semantics and practical implementation of grammatical word change and word formation is not reflected in mass computer lexicographic practice. Each language has its own ways of grammatical coding, which are not systematically described in electronic mass dictionaries. Therefore, the problem of using computer lexicography in the teaching of disciplines of the philological cycle in applicants for higher education in the field of agriculture requires the continuation of a thorough and comprehensive study in modern science and methodology.

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**Key words:** *computer lexicography, management, philological disciplines, information and communication technologies, agricultural sector.*

The development of all spheres of public life is associated with the optimization of information processes (collection, storage, processing, transmission of information), so modern society is called information. Modern information and communication technologies play an important role in teaching a foreign language in non-philological higher education institutions. The organization of education using electronic tools allows significant deepening the professional knowledge and optimizing the educational process for students.

Modern lexicography has significantly expanded and strengthened its tools with computer technology for creating and using dictionaries. Special programs (databases, computer files, word processing programs) let us automatically generate dictionary entries, store dictionary information and process it.

*The purpose of the study* is to reveal the specifics of computer lexicography use for training managers in a modern agricultural university.

To achieve this goal, a set of *methods* was used: theoretical: comparison and generalization (study of the degree of scientific development of the term “computer lexicography”), analysis, synthesis and generalization of psychological, pedagogical and methodological literature, theoretical forecasting and modeling of computer lexicography to determine scientific bases of the researched problem; empirical: diagnostic methods (interviews, interviews with teachers, questionnaires, analysis of products of professional activity of teachers, which provide philological disciplines in teaching the agricultural managers).

The analysis of the problem showed its insufficient representation in modern scientific works. The article characterizes the role of disciplines of the philological cycle in the professional training of higher

education students majoring in “Management”; the term “computer lexicography” is defined and its typology is singled out; the conditions for the introduction of computer lexicography in the educational process of agricultural universities are determined; analyzed software for the introduction of elements of computer lexicography in training the marketing specialists in agricultural universities; the positive and negative aspects of the use of computer lexicography as a component of education are revealed.

The article for the first time revealed the specifics of the use of computer lexicography in teaching the philological disciplines for the specialty “Management” at the universities in the agricultural sector.

The variety of trends in the introduction of computer lexicography at all stages of teaching the discipline is obvious, and, in particular, the variety of approaches to the creation of electronic dictionaries of different types.

The obtained results allow deepening the knowledge of future specialists in the field of management, expanding the interests of higher education seekers, simplifying the work of students with special terminology, systematizing the acquired knowledge, improving the quality of philological disciplines through the introduction of information and communication technologies.

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