Sergii Sharov, *Ph.D.(Pedagogy), Associate Professor of the Computer Science Department*
Dmytro Motornyi Tavria State Agrotechnological University
Hanna Gladkykh, *Lecturer of the Foreign Languages Department*
Dmytro Motornyi Tavria State Agrotechnological University

THE IMPORTANCE OF COMMUNICATIVE COMPETENCE FOR THE PROFESSIONAL FORMATION OF FUTURE COMPUTER SCIENCE SPECIALISTS

The article is devoted to the analysis of the features of communicative competence of future specialists in computer science. It is noted that nowadays the profession of IT specialist is one of the most popular and highly paid in the labor market. A modern computer science specialist should have a professional and key competencies complex. Communicative competence occupies an important place among soft skills. For a future computer science specialist, it is relevant for some reasons: teamwork, communication with customers and clients, networking among non-specialists. It has been found that a lot of attention in the training of future specialists in computer science is paid to foreign language communicative competence and the state language proficiency. The reasons for the importance of foreign language communicative competence for future IT specialists have been identified. These include English-language syntax of programming languages, English-language software interface, employment opportunities abroad, and others. Some examples of word formation in computer terminology have been considered. It is noted that a large part of computer terms contains structural units of the English language. In addition, computer slang, that has specific forming words ways, is often used by IT specialists. It has been revealed that the development of communicative competence of future specialists in computer science occurs in the process of studying professional disciplines, disciplines in English and Ukrainian in the professional field. The means of developing communicative competence include interactive teaching methods, business games, creative work, information and communication technologies, etc. Further research that analyzes more detailed the means of developing foreign language communicative competence of future computer science specialists is planned.

Keywords: *programmer; communicative competence; high school; professional vocabulary; computer slang.*
Ref. 14.

Сергій Шаров, *кандидат педагогічних наук, доцент кафедри комп'ютерних наук*
Таврійського державного агротехнологічного університету імені Дмитра Моторного
Ганна Гладких, *викладач кафедри іноземних мов*
Таврійського державного агротехнологічного університету імені Дмитра Моторного

ЗНАЧЕННЯ КОМУНІКАТИВНОЇ КОМПЕТЕНТНОСТІ ДЛЯ ПРОФЕСІЙНОГО СТАНОВЛЕННЯ МАЙБУТНІХ ФАХІВЦІВ З КОМП'ЮТЕРНИХ НАУК

Стаття присвячена аналізу особливостей комунікативної компетентності майбутніх фахівців з комп'ютерних наук. Зазначається, що на сьогодні професія ІТ-фахівця є однією з найбільш затребуваних та високооплачуваних на ринку праці. Сучасний фахівець з комп'ютерних наук повинен володіти комплексом фахових і ключових компетентностей. Важливе місце серед навичок soft skills займає комунікативна компетентність. Для майбутнього фахівця з комп'ютерних наук вона актуалізується низкою причин: робота в команді, спілкування з клієнтами та замовниками, налагодження зав'язків серед нефахівців. З'ясовано, що велика увага при підготовці майбутніх фахівців з комп'ютерних наук приділяється іншомовній комунікативній компетентності, володінню державною мовою. Виявлені причини важливості іншомовної комунікативної компетентності для майбутніх ІТ-фахівців. До них належать англомовний синтаксис мов програмування, англомовний інтерфейс програмного забезпечення, можливість працевлаштування за кордоном та ін. Розглянуті окремі приклади словотворення комп'ютерної термінології. Зазначається, що значна частина комп'ютерних термінів містить структурні одиниці англійської мови. Крім того, часто вживаним серед ІТ-фахівців є комп'ютерний сленг, який має специфічні способи формування слів. Виявлено, що розвиток комунікативної компетентності майбутніх фахівців з комп'ютерних наук відбувається під час вивчення фахових дисциплін, дисциплін з англійської та української мови за професійним спрямуванням. До засобів розвитку комунікативної компетентності відносять інтерактивні методи навчання, ділові ігри, творчі роботи, інформаційно-комунікаційні технології тощо. У подальших дослідженнях передбачається більш детально проаналізувати засоби розвитку іншомовної комунікативної компетентності майбутніх фахівців з комп'ютерних наук.

Ключові слова: *програміст; комунікативна компетентність; вища школа; професійна лексика; комп'ютерний сленг.*

Introduction. The rapid development of the information society and radical changes in the educational paradigm have led to increased training requirements for future professionals. In terms of implementing a competency-based approach, the competitiveness of the specialist is achieved not

only by the accumulation of knowledge, but also by a general competencies and personal qualities complex. In particular, this applies to soft skills, including leadership skills, conflict avoidance, social comfort and more.

These requirements are also applied in the training of future computer science specialists. The activity of creating software in itself involves a systematic and creative approach to solving the problem. In addition to subject knowledge, the professional activities of IT professionals are often associated with teamwork, communication with customers and other programmers.

Most of the tasks related to communication and interaction are solved with the help of developed communicative competence. At the same time, the communication peculiarities of computer science specialists are related to the use of English syntax of programming languages, special computer terms and abbreviations, etc. As a result, the development of professionally-oriented communicative competence is one of the important components of training future IT professionals.

Analysis of key studies and publications. In the works of L. Ivanova, E. Skornyakova, V. Kontsedailo, attention is paid to the soft skill importance in the process of training a competitive specialist in information technology. The works of N. Kolotiy, I. Nazarenko, S. Symonenko are devoted to foreign language education of IT specialists. The lexical competence structure of IT specialists as a component of foreign language communicative competence is reflected in the work of N. Shandra. The works of M. Matviichuk, V. Myrosnychenko, I. Shishkova reflect the issues related to the use and translation of computer slang. The application of information and communication technologies for the development of future programmers communicative competence is reflected in the works of S. Ruda. At the same time, the analysis of the communicative competence peculiarities of future specialists in computer science and the directions of its formation need attention.

The article aims are to analyze the directions of communicative competence formation of future specialists in computer science, to identify the features of verbal and written communication of IT specialists.

Presentation of the main research material. Today, the profession of IT-specialist is one of the most popular and highly paid in the labor market. This is due to the rapid technological development, constant creation and updating of software, the entry of digital technologies into the lives of almost every person. At the same time, in order to ensure their own competitiveness, computer science specialists should improve constantly their professional level, taking into account modern technologies of data processing, transmission, storage and protection.

The introduction of a competency-based approach to the educational process has led to the separation of general and professional competencies for each higher education graduate, including a specialist in computer science. They should be able to think abstractly and logically, self-learn, be resistant to stress [2, 85], generate new ideas, know different programming paradigms, modeling technologies [9, 109], be able to use the acquired knowledge in professional activities and more.

In addition to professional competencies, future IT professionals should have developed communication skills that involve the conscious transfer of ideas among interlocutors and understanding of each other [8, 137]. At the same time, within the Internet development, the spread of virtual social networks, some means of nonverbal communication in the online communication process become unavailable [10, 13].

Communicative competence is responsible for effective communication of people. This is an integral characteristic, which is based on the individual's life experience [12, 34], allows overcoming communication barriers between interlocutors, use a variety of communication situations [3, 89] in accordance with the situation. In combination with social competence, communicative competence allows to feel comfortably in a society, to solve the arisen problems, to reach understanding among people and social groups, in particular in the virtual space conditions. At the same time, a lot of attention in the training process of future specialist should be paid to professionally-oriented communication and the development of appropriate motivation [3, 90].

For future computer science specialists, communicative competence is important for several reasons. The first is a change in the way software is developed. In the past, local computer programs were often developed by a single programmer. Now the software development provides for the collective work of several IT specialists [14, 181] (designer, planner, programmer, content manager, etc.). In turn, working together by default involves the need for communication between group members. In addition, a significant number of professions in the IT area are associated with communication with customers, which also involves the communicative competence development, the ability to use verbal and nonverbal means of communication.

Successful training of future specialists in the IT field is based on the practical orientation of the educational process, its proximity to the conditions of professional activity [2, 84]. In this case, the future

specialist in computer science after graduating from higher education will be able to immerse themselves immediately in the professional environment and perform their professional functions effectively. If we mean the development of professional communicative competence, then future software engineers should learn clearly to form ideas in writing and oral form, convey information orally to everyone, including non-computer scientists, listen to colleagues, customers, managers carefully, ask relevant issues of a clarifying nature [4, 246]. In addition, a future IT professional should use a variety of communication electronic means (e-mail, instant messaging, etc.) and means of information visualization (spreadsheet, presentations, etc.) to bring information to the interlocutors, even online.

The important role for software engineers' professional growth plays English [8, 134]. This can be linked with the English syntax of modern programming languages and databases [5], network technologies, etc. Moreover, lots of software (application, system, tool) have an English-language user interface. As a result, the ignorance of the IT specialist in English leads to a decrease in his professional productivity.

Within professional communication in the IT field, specialized and technical vocabulary, neologisms, abbreviations, professional idioms are often used [11, 191]. Computer terms have certain specific features that are not typical for the Ukrainian language. The signs of English vocabulary remain for such terms: features of the language structure; word abbreviations, or a combination of Ukrainian tokens with English; spelling rules; features of words-names with a combination of words, letters, and numbers. An example of Ukrainian and English combination is the term *"file server"*. An example of a combination of words, numbers and letters is the term *"3D-format"*. When it comes to the use of abbreviations in English (eg, URL, LAN, DNS), then for non-professionals, these terms may also be incomprehensible.

In addition to a certain level of English proficiency, future computer science specialists should be proficient of course in the state language. This is quite logical, as a significant part of graduates are employed in Ukraine. Ukrainian language skills are a mandatory requirement for professionals working in institutions of various forms of ownership. They should speak Ukrainian, serve the population, provide information about goods and services, and so on. At the same time, information may be duplicated in other languages.

Computer science specialists need to be able to exchange messages that are professionally oriented.

Written communication, including in English, is used in business and private correspondence, during participation in professional forums, chats and conferences, in the process of creating posts on bulletin boards [11, 191], etc. IT professionals often use computer slang. It is usually used to adapt the English term to Ukrainian use. Unlike jargon, computer slang has its own written form and is characterized by the multifunctionality of lexical units. In addition, due to the deep penetration of computer slang into the conversation of non-specialists, it gradually loses its narrow special character and becomes part of the common vocabulary [7, 90].

Methods of computer slang formation should include reduction, univerbation, phonetic mimicry, borrowing from other professional slang, metaphorization [6, 98] and others. Productive types of word formation in computer vocabulary include word formation (combining two or more bases); conversion (transition from one part of speech to another); affixation (addition an affix to the base); reversion (cutting off affixes); contamination (combining the features of several words into one); reduction (truncation of the word) [7, 90]. It should be noted that slang cannot be used during official correspondence. In this case, it is appropriate to use the forms of treatment, terms and concepts that correspond to the corporate ethics of a particular enterprise.

The communicative competence of a computer science specialist goes in different directions and involves oral and written communication. For this purpose, the relevant academic disciplines are integrated into the curricula. For example, the educational program "Computer Science" of the first (bachelor's) level, which trains future specialists at Dmytro Motornyi Tavria State Agrotechnological University, provides students with the ability to communicate in Ukrainian (orally and in writing) and foreign languages. For this purpose, the curriculum of the educational program contains the disciplines "Ukrainian language (for professional purposes)" and "Foreign language (for professional purposes)". Additionally, within professional disciplines studying (for example, programming), students are introduced to English terms of professional orientation. At the same time, communication in the state language between students and teachers takes place at all levels of the educational process.

The level of communicative competence development depends on the topic of communication, interlocutors [1, 72] and their number, purpose of communication, etc. In the process of communication, the appropriate communicative experience is accumulated, communicative patterns, verbal and

visual means of communication are mastered. In this case, future computer science specialists are encouraged to expand the circle of interlocutors, establish contact with employees and classmates [14, 182], participate in discussions of professional topics on forums and social networks, and so on.

The development of communicative competence occurs indirectly during any communication and specifically through interactive teaching methods (business games, modeling and solving life and professional situations) [13, 165], trainings and master classes. Means of formation of communicative competence can be creative works, use of educational communicative situations, etc. The application of the communicative-cognitive approach has proved itself well during the formation of foreign language communicative competence. In this case, future software engineers master specific strategies, authentic examples of a foreign computer language, form critical thinking and reflection [8, 135]. In the case of creative work, students learn to express their own opinions, defend their own work in front of classmates [12, 33], develop skills of consistent presentation of the material.

Great opportunities are offered for language learning by information and communication technologies (ICT). ICT tools include automated test systems, mobile applications, electronic educational resources, electronic dictionaries of computer terms, computer translation programs [10, 14], etc. Such variety allows you to use the powerful potential of ICT effectively to develop communicative and social competence both in the classroom and independent work at home.

Conclusions and prospects for further research. Thus, the training of modern specialists involves the formation and development of relevant general and professional competencies. Communicative competence occupies an important place among soft skills. It allows people to understand each other and transfer the information between them. The communicative competence of future computer science specialists has its own characteristics due to the profession's specificity. Future software engineers should be able to communicate on professional topics, work in a team, transfer information to non-specialists. A lot of attention in the training of future specialists in computer science is paid to foreign language communicative competence and state language proficiency. For this purpose, the curricula for the relevant disciplines are provided. Such means of communicative competence development of future specialists in computer sciences as game teaching methods, business games, creative works, information

and communication technologies, and others could be applied. Further research that analyzes the means of developing foreign language communicative competence of future computer science specialists is planned.

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Світлана Яців, *кандидат педагогічних наук, доцент кафедри англійської філології Прикарпатського національного університету імені Василя Стефаника*

МЕТОДИЧНІ АСПЕКТИ ПРОЦЕСУ ФОРМУВАННЯ ІНШОМОВНОЇ КОМПЕТЕНТНОСТІ МАЙБУТНІХ УЧИТЕЛІВ АНГЛІЙСЬКОЇ МОВИ
(у контексті "Загальноєвропейських рекомендацій")

Стаття присвячена методичним аспектам процесу формування іншомовної компетентності майбутніх учителів англійської мови (у контексті "Загальноєвропейських рекомендацій з мовної освіти"). Наголошено, що провідне місце в професійній підготовці вчителів іноземної мови повинно бути відведено комунікативній підготовці, позаяк саме комунікативні вміння допоможуть учителеві англійської мови, окрім іншого, ефективно організовувати педагогічний процес, будувати переконливу комунікацію з дітьми, їхніми батьками, а також своїми колегами, громадськістю тощо. Виокремлено положення Загальноєвропейських Рекомендацій з мовної освіти, основним завданням яких є формування у майбутнього фахівця комунікативної компетенції, тобто здатності і готовності здійснювати іншомовне міжособистісне, міжкультурне і професійне спілкування з носіями мови. Проаналізовано власний досвід з формування іншомовної компетентності майбутніх учителів англійської мови.

Ключові слова: формування іншомовної компетентності; майбутні вчителі англійської мови; професійно-комунікативна компетентність; заклад вищої освіти; Загальноєвропейські Рекомендації з мовної освіти.

Табл. 1. Літ. 8.

Svitlana Yatsiv, *Ph.D.(Pedagogy), Associate Professor of the English Philology Department of Vasyl Stefanyk Precarpathian National University*

METHODOLOGICAL ASPECTS OF THE PROCESS OF FORMATION OF FOREIGN LANGUAGE COMPETENCE OF FUTURE ENGLISH TEACHERS
(in the context of "European recommendations on language education")

The article devoted to methodological aspects of the process of formation of foreign language competence of future English teachers in the context of European recommendations on language education. It is emphasized, that the leading place in the professional training of foreign language teachers is given to communicative training, because it is communicative skills that will help an English teacher to effectively organize the pedagogical process, build convincing communication with children, parents and colleagues. It is highlighted the provisions of the