



© 2019 Konovalenko. This article is distributed under the terms of CC Attribution-Share Alike 4.0 International as described at <https://creativecommons.org/licenses/by-sa/4.0>

UDC: 378.091.33:811.111:004

DEVELOPMENT OF FUTURE TEACHERS OF ENGLISH INFORMATION-DIGITAL COMPETENCE

Tetiana Konovalenko

PhD in Education, Associate Professor

*Bohdan Khmelnytsky Melitopol State Pedagogical University, Melitopol, Ukraine
<https://orcid.org/0000-0003-4867-324X>, e-mail: tetiana_konovalenko@mdpu.org.ua*

The article focuses on the issue of future teachers of English information-digital competence development as an important condition for the development of the information society as one of the national priorities. The author states that while the future teachers are obtaining higher education, the secondary teachers and school students are also developing and moving forward. The issue of the development of the future teachers of English information-digital skills is considered to be an urgent issue facing modern pedagogical institutions of higher education. The ways of future teachers of English information-digital competence development are revealed, the factors influencing this process and the issues to be taken into consideration are studied. Special attention is paid to the communication and its features on the Internet: symbols, hieroglyphs, memes, emoticons, infographics, etc. as well as virtualization and digitalization. These tools are considered to encourage students to communicate in a non-native language as they make this process more expressive and easier for understanding. The issue of «digital immigrants» teaching the «digital natives» is partially touched. The article presents the unit «Application of Information and Communication Technologies in Foreign Language Learning» being a part of the experimental curriculum of «English Language Teaching Methodology» worked out within the Joint Project of British Council Ukraine and Ministry of Education and Science of Ukraine «New Generation School Teacher». Teacher's information-digital skills, presented in the article, include the ability to use a variety of software to learn and teach English; to use social networks, blogs, sites, to evaluate the potential of online audio and video material for language learning; to assess the potential risks of using the Internet for students of all ages and to set cybersecurity rules; to study current trends in mobile learning and to use mobile phones for educational purposes. The examples of the activities for future teachers of English information-digital skills development are described as they are used in Methodology classroom.



Key words: information-digital competence, future teachers of English information-digital skills, communication, information and communication technologies.

Статтю присвячено проблемі формування інформаційно-цифрової компетентності майбутніх вчителів англійської мови. Автор констатує факт, що поки майбутні вчителі здобувають вищу освіту, дипломовані вчителі загальноосвітніх шкіл вдосконалюють свої вміння і професійно зростають. Саме питання розвитку інформаційно-цифрових вмінь майбутнього вчителя англійської мови стоїть перед закладом вищої педагогічної освіти. Особливу увагу приділено спілкуванню та його особливостям в мережі Інтернет: символам, ієрогліфам, мемам, емотиконам, інфографіці, а також віртуалізації та цифровізації. У статті представлено розділ «Застосування інформаційно-комунікативних технологій у навчанні іноземних мов» як складової експериментальної навчальної програми з «Методики навчання англійської мови», розробленої в рамках реалізації спільного проекту Британської Ради в Україні та Міністерства освіти і науки України «Шкільний вчитель нового покоління». Описано приклади вправ для розвитку інформаційно-цифрових вмінь майбутнього вчителя англійської мови в тому вигляді, як вони використовуються на заняттях з методики.

Ключові слова: інформаційно-цифрова компетентність, інформаційно-цифрові вміння майбутнього вчителя англійської мови, спілкування, інформаційно-комунікативні технології.

Introduction. The profession of a teacher has probably never been boring or uninteresting. However, with the advent of information and communication technologies, being a teacher became even more interesting. In different countries, the integration of digital skills into the overall professional competence varies. Besides, all over the world people do not have the same access to information and communication technologies. It has become a cause for «The Global Digital Divide» which was presented within United Nations Global Development Goals Indicators (Pro shvalennia Strategii rozvytku informatsiinogo suspilstva v Ukraini, 2013). It is calculated by the number of computers per one hundred people. However, people have digital skills developed to some extent: someone uses a computer as a typewriter and someone can produce real miracles while using it.

Therefore, contemporary realities are reflected on the state level. Thus, in the Cabinet of Ministers Resolution of May 15, 2013 No. 386-p «On approval of the Strategy of development of the information society in Ukraine», it is stated that the rational consideration of the influence of the various factors set, as well as the peculiarities of the state development requires the coordinated steps for the development of the information society and the knowledge society. To achieve this aim, the efforts of the state, business and civil society must be combined. Currently, for most countries, the development of the information society is one of the national priorities. At the same time, information and communication technologies are a necessary tool for socio-economic progress, one of the main factors for innovative economic growth.



The document details the Strategy of Information Society Development in Ukraine for 2015-2020, the implementation of which enables:

- increasing the national competitiveness as a result of human development, especially in highly intellectual fields;
- improving the quality of life by ensuring economic growth, providing quality access to information, education, science, health, governance and widespread use of information and communication technologies;
- creating new jobs, expanding employment opportunities for the population;
- increasing the level of social protection of vulnerable population groups, in particular persons in need of social support and rehabilitation;
- creating a modern secure information infrastructure and ensuring the creation of conditions for the safe functioning of national critical infrastructure;
- promoting the formation of an open democratic society that will guarantee respect for citizens' constitutional rights to participate in public life, and to take appropriate decisions by public authorities and local self-government bodies (Pro shvalennia Strategii rozvytku informatsiinogo suspilstva v Ukraini, 2013).

At the end of the 21st century, the features of the world community were accumulated within the Concept of the Information Society by such authors as Tadao Umesao, Fritz Mahloop, Mark Porat, Elvin Toffler, Manuel Castels and others. Today, due to the rapid increase of telecommunication systems and new information technologies opportunities, the information environment of people's existence and activity is being formed, and the society aimed at the information age is being formed as well. For teachers, it is always important to stay up to date with technology as in the educational system of information society it is the leading means of learning and teaching.

The development of the information-digital competence of the future teacher of English is an urgent issue facing modern pedagogical institutions of higher education. This issue is getting more and more coverage every day. In the scientific literature, there are already a number of works devoted to the development of information and communication competence in the process of advanced training (Yu. M. Sergeiev, I. P. Vorotnikova), the concept of introduction of new information technologies in the educational process of secondary school (I. V. Robert), the study of the levels of information and communication competence of teachers (T.O. Panina, S. A. Dochkin, Yu. V. Kletsov), creating an educational space for the preparation of future educators by means of ICT (R. S. Gurevich, G. B. Gordiichuk, S. G. Litvinova, L. L. Konoshevsky, O. L. Konoshevsky, V. B. Moiseev, O. V. Shestopaliuk), methodological system of preparation of the future foreign language teacher for the use of information technologies in students teaching (L. I. Morska), the use of multimedia telecommunication technologies in educational process (M. M. Koziar, A. D. Kuzyk, Yu. V. Karavan), the use of social media services in the educational process of universities: Blogs, Web-quests, Blog-quests (M. Yu. Kademiya, O. V. Shestopalyuk, V. M. Kobysia), information culture of a teacher (M. I. Zhaldak, A. G. Oliinyk, R. S. Gurevich).



Ukrainian scientists state that information and communication or digital competence is especially crucial in the pre-service teacher-training system. New Ukrainian School Concept challenges the teachers whose school students are digitally literate and advanced. The importance of «information-digital competence formation of learners by means of a foreign language that broadens the learners' opportunities of using their knowledge, habits and skills in cross-cultural communication» was suggested by V. Kalinin and L. Kalinina (Kalinin V., Kalinina L., 2018).

As S. M. Prokhorova points, «digital competence is one of the key points in the modernization of education in Ukraine». According to her opinion «language teachers need to be not only computer-literate but to have professional confidence to use ICT adequately and methodologically correctly», «able to use ICT tools and different web resources in the classroom», «to broaden the context of lessons, build international cooperation and provide access to authentic materials in different forms: text, multimedia, streaming television, podcasts, various online systems, etc.» (Prokhorova S. M., 2015).

Babiy N. V., Furman O. A. and Kostiuchenko A. M. generalize the necessity of future teachers' information-digital competence development. They suggest the ways of development and the conditions for the formation of information and digital competence of future educators such as «the ability to surf in the information space, get the information and handle with it according to their needs and the demands of the high-tech society», «the ability to use information and digital technologies in their professional activity» (Babiy N. V., Furman O. A., Kostiuchenko A. M., 2018).

There are numerous studies devoted to the effectiveness of information and communication technologies used in education all over the world. One of them is represented by A. Burns and N. Kurtoğlu-Hooton. It was the investigation of the processes and practices involved in conducting action research on the use of ICT and new technologies in the classroom as experienced by 12 teachers located across different international contexts, from Europe, the Middle East and Asia (Burns A., Kurtoğlu-Hooton N., 2016).

Thus, nowadays the issue of teachers information-digital competence development is considered by methodologists to be one of the key competences of a modern teacher. Therefore, the aim of this paper is to reveal the ways of future teachers' of English information-digital competence development as well as to study the factors influencing this process and the issues to be taken into consideration.

According to the aim of our research, we used theoretical research methods: analysis of scientific and methodological works on the information and digital development of the society, future teacher of English pre-service education, content analysis of research materials, followed by the synthesis of its results and coming to the conclusions on the issue of information and communication competence of a teacher of English.

Results. For both school and university students, the Internet is a usual channel of communication by means of digital and electronic technologies virtually. It is a good opportunity for future teacher to master Internet communication as a means of teaching. The difference between mastering native language, second language and the language of the Internet is rather significant. The last one is much



closer to school and university students. Though students' ability to use various Internet applications should become a part of their professional methodological competence, i.e. become the means of teaching a foreign language.

Therefore, such issues as emotions, memes, infographics etc. in the network communication are of great importance for the teacher trying to speak to students in their language. Emoticons, emoji and stickers have become not only a universal system for the transmission of emotions, but also an international, as well as paralinguistic, tool for written communication, since «kinetic means of expressing emotions are equally understood by representatives of different cultures because they are a part of biological heritage» (Avdeieva E. L., 2015). These tools can encourage students to communicate in a non-native language as they make this process more expressive and easier for understanding. The use of emoticons has already gone beyond the Internet. There exist series of books in emoticons, i.e. *Emoji Phantom of the Opera* or *Emoji Pride and Prejudice*. They help students to join the reading class in spite of the fact that perception of emoticons is not so difficult as reading. But by using them the teacher will succeed in drawing students' interest to reading books in a foreign language. If the teacher uses memes skilfully they become the information of the kind that arouse students' interest or cause certain associations. As Yulia Shchurina points out that «the effectiveness of communication in this case depends directly on the ability of the Internet user to explicate the hidden cultural connotations of the meme, to restore those associative relationships that provide comic effect» (Shchurina Yu. V., 2012). In teaching foreign languages memes are especially good for developing students' intercultural competence, though future teachers should understand that the issues of culture prejudices, stereotypes and tolerance are to be taken into consideration.

In Methodology classroom future teachers acquaint with the ways and means of virtual communication, which are characterised by the following characteristics: indirectness, distance, interactivity, global intercultural character, anonymity of participants, ample opportunities for constructing personal and social identity, lack of status hierarchy, indeterminacy of uncertainty, uncertainty processes. It is necessary for the development of the ability to create the safe cyberspace for their future students. Future teachers while being students should learn to create safe cyberspace and teach their future students to respect themselves and other people online, be careful with information, behave properly, protect themselves and their personal information, share only positive content, avoid harmful information and sharing it, avoid bullying and report cases of it to a trusted authority, etc.

A new culture of communication has emerged because of usage of personal computers, smartphones, smart-watches, virtual reality glasses, and it got the name of digital or network communication. According to David Crystal, today the language of the Internet (Netspeak), although written in its essence, acquires features of oral speech, since the main peculiarity of the Internet is its real or potential interactivity (Crystal David, 2006). It is the urgent demand to teach the culture of communication online as to teach face to face communication. The teacher should take into consideration the form, value, role and nature of communication in the information society and apply it to meet the students' needs. Thus, it is possible to make use of



digital communication in class: at the interpersonal level it is the use of hieroglyphs, symbols to simplify communication, the use of emoticons in the message to convey emotions, the use of infographics for the efficient transmission and perception of large amounts of data and information; at the international level they are virtualization and digitization of communication, changing the intensity and frequency of communications, the global nature of communication. All together these skills make up the teacher's information-digital competence.

However, nowadays a variety of high technologies is a real challenge for educators called «digital immigrants» to teach the «digital natives» – their students. In this regard the generation gap appears in 1980 as those born before this year are considered to be «digital immigrants». For «digital natives» information and communication technologies are important in the study of any school subject just because they represent a part of their every-day living.

The latest revision of school curriculum in foreign languages states that students should master information-digital competence, in particular, the following skills should be developed to:

- learn a foreign language using special software, games, social networks;
- create information objects in foreign languages;
- communicate in a foreign language with the use of information and communication technologies (ICT);
- apply ICT to search, process, analyse and prepare information in accordance with the objectives of learning;
- willingness to adhere to copyright and network etiquette (Core Curriculum).

The statement that the profession of a teacher is interesting and not boring can be supplemented with the fact that it becomes sad when the development of secondary school is ahead of the development of higher education, and when the teacher does not develop the necessary skills for students because he or she does not own them. A lot of traditional methods of teaching professional component in higher education have grown outdated and static. They do not give an opportunity to the future employee to become a flexible, innovative and competitive one in his or her professional branch. The process of teacher training is often similar to the process of making a computer. As soon as the computer appears in the store, it is already considered obsolete. While the future teachers are obtaining higher education, the secondary teachers are also developing and moving forward. Students at school, the content of school subjects and the form of the educational process need modern teachers who do not stop in their development after obtaining higher education.

Unfortunately, having a broad research interest in this issue does not solve it, however, with the rapid development of technology, there is an increasing scope for exploring the theoretical foundations and finding the most practical ways to use ICT effectively in the educational process and a future teacher's preparation for it.

In the current scientific research on the development of information and digital competence of the future teacher of English, the methodology of teaching foreign languages is studied somewhat apart from the use of ICT in the educational process.



An important event in the Ukrainian system of professional higher education of English teachers was a joint project of the British Council in Ukraine and the Ministry of Education and Science of Ukraine «New Generation School Teacher». One of the most crucial results of this project was the Experimental Curriculum on Methodology of English Language Teaching, which became the link that united detached parts of professional education into a single context. For example, in contrast to the separate study of psychology courses and methodology of teaching foreign languages, the curriculum includes the unit «Psychological factors of foreign language learning». This course also contains the unit «Application of Information and Communication Technologies in Foreign Language Learning». It is important that students do not have to listen to lectures and then retell them at seminars. All the classes within the discipline are practical, and this is especially valuable in mastering digital technologies.

In the methodological training of the future teachers of English the most important is its practical focus, that is, the development of skills for the effective implementation of professional functions. In addition to the ability to teach different aspects of English, the teacher needs a whole set of social, personal, instrumental, general and professional skills, and surely the skills of information and communication technologies use in teaching. As mentioned above, this is an issue urgent to solve because of the rapid development of digital technology and the rapid response of students to technical and technological innovation.

For the teacher of English, information and communication technologies, on the one hand, can present some difficulties and challenges, and on the other hand, can be the enhancing factor that will have a positive impact on the educational process. In order to ensure that ICT has a positive impact on English language teaching, the teacher must have a digital competence including two components: relevant knowledge and skills.

The basic knowledge basis on the use of ICT in the educational process is the information about the advantages and disadvantages of using computer technology compared to traditional activities (in workbooks, textbooks, on the blackboard, etc.); criteria for evaluating and selecting online language learning resources; tips for the use of interactive whiteboard, mobile phone and other ICT in the educational process.

Teacher's ICT skills include the ability to use a variety of software to learn and teach English; to use social networks, blogs, sites, etc., to evaluate the potential of online audio and video material for language learning; to assess the potential risks of using the Internet for students of all ages and to set cybersecurity rules; to study current trends in mobile learning and to use mobile phones for educational purposes.

As noted by Roman Gurevich, Maya Kademiya and Mikhail Koziar, «Information and communication technologies, their rapid improvement and use in all spheres of human activity provide virtually unlimited possibilities for placement, storage, processing and delivery of information of any amount, content at unlimited distances» (Gurevych R. S., Kademiia M. Y., Koziar M. M. et al., 2006). Besides, these modern opportunities help the teacher to explain, demonstrate, visualize teaching materials in a language comprehensible and habitual for the students.



Discussion. Digital literacy of English language teachers will help to improve the quality of learning and modernize its content. For example, such a teacher will know not only how to create a blog, but also how to engage his students, to expand the community, to attract the people who can share useful ideas with students, to promote active student activity and develop their critical thinking, creativity, culture of communication on the Internet and the use of multimedia technologies.

The integrative approach to the organization of practical classes in «English Language Teaching Methodology» within the unit «Information and Communication Technologies in Learning and Teaching English» will provide an opportunity to use the experience of students with the benefit of directing them into the professional field. Through a thorough analysis of all the digital opportunities in English language learning, the positives and negatives, the practical mastering new ways of action, students will be able to confidently realize their digital competence.

In general, teachers should be able to develop the skills of using ICT in the educational process, not only at the methodological level, but also at the technological level. That is why G. M. Fedoruk gives the examples of the future teacher's multi-level practical digital skills. Low level:

1. Type a text document (not containing tables and charts). Save it to your hard drive and to My Documents folder.

2. Learn the weather forecast using the Internet.

3. Find the specified file on your computer and copy it to an electronic medium.

Average level:

1. Create a sample presentation on the topic "The results of the academic year" containing photos, tables and charts, save it to flash-card and print slides on the printer.

2. Scan parent's memo containing text and pictures, and send it to an email inbox at a specific address.

3. Connect the projector to a computer (laptop).

High level:

1. Connect the multifunctional printer to your computer and find new drivers for it on the Internet.

2. Develop a test program consisting of 10 questions and place it on the educational institution site.

3. Prepare an electronic student portfolio of audio/video containing certain fragments and demonstrate its use (Fedoruk G. M., 2015).

Such checklists can be used as a self-assessment tool for the teachers who may consider themselves digitally literate while being not able to create a good PowerPoint presentation.

In this context it will be relevant to give the examples of activities in Methodology class used to develop information-digital competence of future teachers of English.



Ping-Pong

- Split students into two groups. Ask them to discuss in their groups advantages/disadvantages of information and communication technologies (one group discusses only one aspect).

- Invite groups to stand in two lines, one opposite another. Give them a ball and ask students in turns to say one (dis)advantage at a time and throw the ball to the opposite line and so on until all suggestions end.

- Summarize in plenary.

This activity helps students to get the balanced awareness of both positive and negative effects of using information and communication technologies in educational process.

Metaphor of classroom in modern technological age

- Ask students to brainstorm the ideas as for the classroom in modern technological age, its peculiarities and functioning.

- Split students into small groups. Invite students to summarize the discussion and to create a metaphor of the classroom in modern technological age.

- Ask groups to present their posters.

- This activity is aimed at modelling the shared and accumulated knowledge on the topic of a session.

Cyber wellness

- Ask students the questions: What is cyber wellness? What are educational implications for cyber wellness?

- Split students into pairs. Ask them to share their opinions as for principles of cyber space wellness. Invite them to present their ideas.

- Ask students to look the information* through and to think of possible transformation of principles for the use in classroom.

- Invite them to create the profile of students' cyber wellness on the basis of suggested principles.

*Principles

(1) Respect for Self and Others

(2) Safe and Responsible Use

(3) Positive Peer Influence

- Discuss the results in plenary by asking the question: What is the main aim of school students' cyber wellness awareness?

Answer: to equip students with life-long social-emotional competencies and sound values so that they can become safe, respectful and responsible users of Information Communications Technology (ICT)

This activity prepares future teachers to creating safe cyber educational space in their professional branch.

Blogging for English language learners

✓ Ask students the questions:

What for do blogging create opportunities?

What is the use of blogs for English-language learners?

How to start blogging in English classroom?

What are the purposes of student blog?



✓ Invite students to brainstorm the ideas about benefits of blogging for English-language learners.

✓ Split students into two groups. Ask them to create blogs of teachers of English/learners of English equipping them with the tips as for blog components:

- Information about class, assignments, daily routine, tasks, etc.
- Discussion and comments forum.
- Class photos and videos.
- Photos and videos of resources related to classwork.
- Interesting articles and stories.
- Vocabulary lists.
- Links to resources, games, and fun ways to learn English.
- Cultural stories written by students.

This activity acquainted students with the notion of blogging and encouraged them to create their own blogs for educational purposes. The blogs created by students in their Methodology class were used by them during their school experience stage. According to the students' feedback it was a real fun and attraction for their school students and a wonderfully motivating factor for enhancing their learning.

Conclusions. Thus, the issue of future teachers of English information-digital competence development is considered to be an urgent one facing the pedagogical institution of higher education. Future teachers should be ready to implement the up-to-date information and communication technologies, to create the conditions for effective communication in the classroom. Knowing the features of communication on the Internet, having skills for its realization and the ability to handle with the newest technologies will help a teacher to involve his or her learners into active and motivated learning.

A new culture of communication comprising emoticons, memes, infographics helps a teacher to present the educational materials in more effective ways. Besides of involving attractive for students means of transferring the information, the future teacher should remember about creating the safe cyberspace and teaching students network etiquette. In teaching English language future teacher's communication-digital competence comprises skills of using information and communication technologies for organizing students' learning, creating information objects in English, applying to communicate, search, process, analyse and prepare information in accordance with the objectives of learning

The unit «Application of Information and Communication Technologies in Foreign Language Learning» of the experimental curriculum «English Language Teaching Methodology» demonstrates how to organize methodological training of future teachers of English. Development of future teachers' information-digital skills is an integrative part of their overall methodological competence.

Prospects for further scientific research are seen in creating the detailed algorithms of the information and communication technologies implementing in teaching English language and developing relevant digital skills of a teacher.



References:

- Avdeieva E. L.** (2015). *Sposoby vyrazhenia emotsionalnyh sostoianii v mezhlichnostnom obshchenii i Internet-kommunikatsii*. Filologicheskie nauki. Voprosy teori i ipraktiki. No.1 (43). Part 2. P. 13-15. [in Ukrainian].
- Babiy N. V., Furman O. A., Kostiuchenko A. M.** (2018). *Formuvannia informatsiino-tsyfrovoi kompetentnosti maibutnih pedagogiv*. Naukovyi visnyk Kremenetskoï oblasnoï gumanitarno-peadagogichnoï akademii imeni Tarasa Shevchenka. Pedagogika. No. 10. P. 7-16. [in Ukrainian].
- Burns A., Kurtoğlu-Hooton N.** (2016). *Using action research to explore technology in language teaching: international perspectives*. British Council. Retrieved from: <http://www.teachingenglish.org.uk/article/using-action-research-explore-technology-language-teaching-international-perspectives>.
- Core Curriculum.** English Language Teaching Methodology. Bachelor's Level. Available at: <https://ngschoolteacher.wixsite.com/ngscht/core-curriculum-1>.
- Crystal David** (2006). *Language and the Internet*. Cambridge University Press.
- Fedoruk G. M.** (2015). *Formuvannia informatsiino-komunikatsiinoï kompetentnosti maibutnih uchiteliv tehnologii u protsesi fahovoi pidgotovky*. PhD of education thesis. Vinnytsia. [in Ukrainian].
- Gurevych R. S., Kademiia M. Y., Koziar M. M. et al.** (2006). *Suchasni informatsiini tehnologii ta ihne vykorystannia*. Kyiv. [in Ukrainian].
- Kalinin V., Kalinina L.** *Formuvannia informatsiino-tsyfrovoi kompetentnosti uchniv starshoi shkoly zasobamy inozemnoi movy iak kliuchovoi kompetentnosti novoi ukrainskoi shkoly* (2018). Molod. i rynek. No. 9 (164). P. 85-90. [in Russian].
- Prokhorova S. M.** (2015). *Poniattia tsyfrovoi kompetentnosti maibutniogo vchytelia inozemnoi movy u svitovomu osvithniomu prostori*. Visnyk Zhytomyrskogo depzhaonogo universytetu. Pedagogichni nauky. No. 4 (82). P. 113-116. [in Ukrainian].
- Pro shvalennia Strategii rozvytku informatsiinogo suspilstva v Ukraini** (2013). Postanova KМУ, May 15, 2013 No. 386-p [in Ukrainian].
- Resolution adopted by the General Assembly on 6 July 2017** (2017): Retrieved from: <https://undocs.org/A/RES/71/313>.
- Shchurina Yu. V.** (2012). *Internet-memy kak fenomen internet-kommunikatsii*. Nauchnyi dialog. No. 3. P. 161-173.

Received: October, 10
Accepted: November, 14