

# Training of Future Primary School Teachers for Application of ICT at Language Lessons

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**Abstract.** The necessity of training of the future primary-school teachers for application of information communication technologies (ICT) in their professional activity is proven in the article. The author considers the essence of the teacher's language didactic competence, reveals constituent components of the latter, and proves the urgency of the problem of introducing the future primary school teachers to the basics of electronic language didactics as a branch of education studies. On this basis the possibilities of training the students in making language skills developing electronic and multimedia course books and also in their methodically competent application at the lessons in the primary school are described. The possibilities of using the standard set of Microsoft Office programmes to achieve language and speech skills improvement are also highlighted.

**Keywords:** information and communicative technologies, methodology of teaching Ukrainian language, primary-school pupils, multimedia course books, electronic course books

**Key Terms:** TeachingProcess, ICTComponent, Development, Integration, StandardizationProcess

## 1 Introduction

The modern innovative processes in the Ukrainian educational system caused by all-embracing informatization of world-wide community life are based on the laws of Ukraine "About the conception of the national programme of informatization" (№ 75/98-VR of 04.02.1998) with amendments introduced according to the laws N 3421-IV (3421-15) of 09.02.2006, VVR, 2006, N 22, article 199, N 3610-VI (3610-17) of 07.07.2011), according to the law "About the fundamentals of information-oriented society development in Ukraine for 2007 – 2015" (№ 537-V of 9.01.2007) and others.

Nowadays one can observe that a considerable period (more than several decades) of introducing of information-communicative technologies into the educational reality has given certain results: there are domestic theoretical and practical works on problems of educational system informatization in Ukraine, multimedia and electronic

course books are made for pupils of various age, conventional school textbooks are being made over into electronic form, educational programmes employing school netbooks are being tested, in primary schools in particular, etc. Besides these reserves are daily supplemented with or changed by new theoretical generalizations, with results of applied researches of scientists, with electronic learning aids, etc. Thus, the process of educational system informatization is evolving and generally speaking its development can be defined as rapid.

Taking into account the constant need of all educational system stages for competent educators who understand the interests of modern pupils and are able to adjust them to the didactical aim, the leading place in the informatization of education belongs to the training of teachers and instructors with a sufficient level of informational-communicative competence in various educational branches. The primary stage of education as a basic one for the whole education of a person plays an important role in this process.

The urgency of the training of primary school teachers in the course of informatization is closely considered by modern Ukrainian scientists such as O.Bigych, I.Bogdanova, V.Imber, A.Kolomiyets, L.Morska, L.Petukhova, I.Shyman and others. In their works is emphasized the fact that “the state recognises one of the most significant condition of updating of education. That is the training and advanced training of the teaching staff and their acquirement of modern information technologies” [3, p. 2]. It is mentioned that in this regard innovative technologies and individual-oriented approach in universities contain great implicit opportunities.

All the scientists agree on the point that the only way to solve this problem is to update the educational system as a whole and the system of occupational teacher training which are “an integral unit of interrelated and interdependent constituents (social and economic, special, psychological and cultural) which have the common goal to bring up an all-round person” [3, p. 3].

The majority of researches of modern Ukrainian scientists deal with the problems of moulding the informational competence of future primary school teachers. There is certain theoretical and methodological groundwork:

- the notion of “informational culture” of a primary school teacher is defined and described in detail. The necessity of its forming for modern teachers: “Informational culture is considered as integrated personal formation which is the cause and indicator of training, is a system of attainments, abilities and skills in stating the need for information, the accomplishment of the search for the necessary information considering the whole range of information resources, picking, estimation, saving, integration, structuring and creation of new information. The necessity of forming informational culture is determined by the changes of informational resources in the educational process in universities and comprehensive schools. The network of infobases, of electronic educational and interdisciplinary connections is expanding [6, p. 3];
- the necessity of new approaches to the forming of occupational competence of teachers is proven: “Developing and improving the informatization process in the educational institutions it is essential to learn as many teachers as possible to use new ways of giving lessons applying information-communicative technologies and to introduce them into the process of creation and filling of the information medium [8, c. 33];

– approaches to the use of information-communicative technologies in the educational process are singled out: complex or partial use of ready electronic editions for educational purposes and the introduction of applied and instrumental programme tools to work out one's own learning aids etc. [1, p. 3]

At the same time the issue of forming the informational-communicative competence of future teachers in regard to the acquirement of subject methodology is yet insufficiently considered. Apparently during their study the students must receive not only general knowledge of information science and information-communicative technologies but also specialized knowledge as to how apply information-communicative technologies while teaching every single subject on the primary stage of school. These points are not yet brought to light in the Ukrainian science.

While examining the issue of introducing of information-communicative technologies into the process of teaching a foreign language, one ascertains that there exist theoretical works on this topic in Ukraine but their number is few and mainly concerning the learning of a foreign language (L.Morska, L. Kostikova and others). Moreover the majority of scientists cover these issues as a part of other ones – of a more general nature. There is a somewhat different situation in the Russian methodological science: in the recent years deep research is carried on in the field of language education (E.Azimov, M.Bovtenko, A.Bogomolov, L.Dunayeva, K.Piotrovska, E.Polat and others), of electronic language education (O.Hartzov). Owing to these researches the genres of electronic language-teaching editions of educational kind are defined and classified, the methods of their use in the educational process are worked out. However the majority of these researches concern the teaching of foreign languages or the teaching of Russian as a foreign language. Applying of information-communicative technologies as a means of stimulation of the process of learning of one's native language on the primary stage has not been yet investigated.

The aim of our article is to illustrate the necessity for a future primary school teacher to master the fundamentals of electronic language education and to demonstrate the prospects of forming his/her skills in the making of language-teaching course books for primary school pupils.

Considering the formation of language education competence of the primary school teacher-training faculty we describe it as an educational phenomenon and thus define it as an ability to organize a high-grade process of formation of primary school pupils' language and speech skills, on high-quality scientific and methodological levels. At the same time the teacher must take into account psychological and educational specific character, use different organization forms of the teaching-educational process and constantly improve himself/herself.

In the structure of this educational phenomenon we single out three groups of constituents: basic (psychological-educational, linguistic), main (linguistic-methodological and informational-communicative) and superstructure (diagnostic, acmeological). Recognising the importance of all the constituents and their role in the formation of the language education competence of a teacher we emphasize the significance of the informational-communicative constituent as the main indicator of professional ability of a modern teacher.

In the field of language teaching the formation of the informational-communicative constituent of the language education competence consists first of all in the

acquaintance of the students with the fundamentals of the electronic language education, its significance, the classification of the genres of electronic and multimedia educational and speech production, criteria of its analysis, the methods of its applying, etc.

Concerning this O.Hartsov says that “a modern teacher must not only possess the professional knowledge of his subject but also be able to apply freely didactical and methodological possibilities of new information technologies in practice. Global integration, general informatization, expansion of economic, political and cultural contacts between countries, democratization of education, migration of workers, spreading of mass media favour the forming of a unified worldwide multi-national, crosscultural, tolerant and multilingual media with new development patterns” [4, p. 34].

The scientist sees the aim of electronic language education in the integration of experience of the traditional methods of language teaching with the advantages of information technologies and as the main function of the electronic language education he considers in supplying theoretic and practical basis of language teaching under the conditions of information community. According to the successful thought of O.Hartsov, language education transforms the spontaneous process of informatization of the theory and practice of foreign language teaching into a scientific system guided by teachers- linguists [4].

The scientist names a large number of methods of electronic language teaching (object-oriented, project method, the method of visual editing, of the activation of language abilities, of information resource, of educational event and of interaction scenarios) emphasizing that the method of visual editing is of paramount importance for a future teacher. According to the estimation of O.Hartsov, application of this method allows to solve such problems of language education as:

- to produce electronic learning aids in the necessary amount independently of the specific character of a course;
- to create electronic learning aids on the base of dynamically updatable educational supplies;
- to constantly renew the present electronic learning aids according to the changes in reality, to the pupils’ requirements and the development of electronic language teaching methods;
- to create counterparts to the present electronic learning aids which favour the improvement of the education quality;
- to engage in the process of producing electronic learning aids as many teachers as possible [4, p. 149].

In the basis of this method lies the usage of widely available and well-known software which does not require specialized computer science knowledge or programming skills. Students and teachers should use this software to create electronic learning aids. We agree with O.Hartsov as to the role of the method of visual editing since the students of the primary-school teacher-training faculty have to master a large amount of various teaching materials from different branches of science for their future occupation. That is why their computer science competence develops on the most general level of operating.

Thus, the main task of training the students of the primary-school teacher-training faculty for the application of the fundamentals of electronic learning tools of

language education in the future professional activity consists in defining the most optimal set of computer programmes which allow to create educational language teaching aids, to structure them, to update them efficiently, etc. Describing the possibilities of producing electronic supplements for language and speech lessons in the primary school scientists and teachers chiefly point to the standard set of Microsoft Office programmes with the Word plug-in, WordPad, Excel, Paint, especially PowerPoint. In the list of programmes and educational courses be the resource centre “Information technologies in the language teaching” SpellMaster Word-Based Games, HotPotatoes, Filamentality and others are pointed out [9].

It is worth noticing that each of the programmes becoming more complex acquires more possibilities but in practice the most popular among the primary school teachers stands out the programme Microsoft PowerPoint. Its advantages in the fast producing of the electronic supplements for language and speech lessons, its possibilities to combine various methods of representation the language teaching material are indisputable. We suppose that the foundation of popularity of the programme Microsoft PowerPoint among teachers lies in its availability (one does not have to search for anything, to download or to study possibilities, etc.). But as for their resources the above mentioned programmes surpass PowerPoint in many issues.

Thus, the problem of choice of software for the training of future primary school teachers and for creating electronic aids for language and speech lessons lies in the orientation to the work in those programmes which they will be able to use in the future without difficulties. Here we should describe one more programme of the standard set of Microsoft Office programmes, it is Microsoft Publisher. This programme is not popular and widely used well enough.

The programme Microsoft Publisher possesses a wide range of functions – designing of advertisements, business cards, bulletins, booklets, etc. In the teacher’s work there constantly emerge a necessity to create such journalistic editions of a sufficient quality. But we consider it advisable with educational purpose to direct students on the creation of a web page in this plug-in of Microsoft Office with educational purpose. Unfortunately, the option “web page” is missing from the latest versions of the programme, they allow only to edit and to add to the examples created in the Microsoft Office Publisher 2003. That is why we give the students a pattern suggesting them to work out a fragment of an electronic course book on a definite topic using Microsoft Publisher of any version.

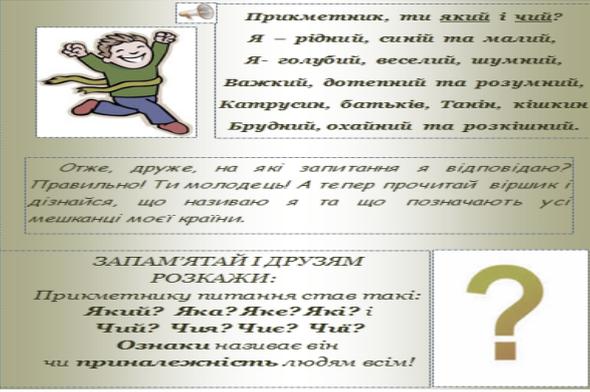
It is worth mentioning that this programme is of the same kind in its structure and means of usage as other ones in the set of programmes Microsoft Office, This allows a person without specialized computer science knowledge to master it fast, and in contrast to PowerPoint it has an important feature – interactivity, that is it gives a pupil an opportunity to navigate pages independently.

The availability of a large number of patterns and coloured schemes makes it possible to create a unique look of every single electronic learning aid for language and speech lessons and the set of elements to manage the form (switches, flags, text and edit boxes, etc.) allows to make tests to check the progress of primary school pupils using both closed and open forms of tests. The results of fulfilment can be preserved in a separate file or can be delivered per e-mail.

All this makes primary school language teaching convenient as the psychological peculiarities of primary school pupils require application of a vast number of visual

aids and the present tests often do not admit insertion of pictures, animation pictures or sounds which do not relate immediately to the task. Besides an important favourable feature of application of the programme with educational purpose we see in the possibility to preserve the result in the layout of one web page without downloading it into Internet. This web page can be opened by means of any browser.

As an example can serve an electronic course book in Ukrainian language for the fourth grade pupils on the topic “Adjective as a part of speech” made in 2011 by means of the programme Microsoft Publisher within the framework of a master’s thesis at the primary school teacher-training faculty of Slovyansk state teacher training university. This electronic course book contains five main pages: “Hello!”, “Think”, “Try”, “Your helpmates”, “Test yourself”. They contain correspondingly the main material concerning adjective as a part of speech (fig. 1), a task to select an appropriate adjective for a given animation picture, tasks to describe the characters of animated situations and to compose a text with a large number of adjectives, concise theoretical material on grammar characteristics of adjectives and their lexical categories (fig. 2), tests and other tasks to check attainments, abilities and skills of the fourth grade pupils (fig. 3).



Прикметник, ти який і чий?  
 Я – рідний, сивий та малий,  
 Я- голубий, веселий, шумкий,  
 Важкий, дотепний та розумний,  
 Катруси, батьків, Тахі, кішки  
 Брудний, охайний та розкішний.

Отже, друже, на які запитання я відповідаю?  
 Правильно! Ти молодець! А тепер прочитай віршик і  
 дізнайся, що називаю я та що позначають усі  
 мешканці моєї країни.

**ЗАПАМ'ЯТАЙ І ДРУЗЬЯМ  
 РОЗКАЖИ:**  
 Прикметнику питання став такі:  
**Який? Яка? Яке? Які?** і  
**Чий? Чия? Чье? Чій?**  
 Ознаки називає він  
 чи **приналежність** людям всім!

Fig. 12. A fragment of the page “Hello” of the electronic course book “The Land of Adjectives”.



Згадай і назви якомога більше мешканців моєї країни,  
 які називають ознаки чи принадлежність чогось цим  
 симпатичним істотам і предметам. Тобі допоможуть мої  
 запитання.

Який?     
 Чий?

Яке?     
 Які?

Яка?     
 Які?

**Fig. 13.** A fragment of the page “Think” of the electronic course book “The Land of Adjectives”.

Визнач рід та число іменника на малюнку і прикметників, які ти до нього дібрав.

Зроби висновок:  
Рід і число прикметника залежать від

Завдання 2  
Заповни таблицю: упиши поряд із прикметниками потрібні рід, число і відмінок.

Прикметник	Рід	Число	Відмінок
червона			
воєвничі			
Даринкими			
дідусевого			
шляхетному			
на українських			

**Fig. 14.** A fragment of the page “Test yourself” of the electronic course book “The Land of Adjectives”.

Such contents and structure of the course book allow to apply it at the lessons (fragmentary), in the individual, unassisted, home work, etc.

Consequently, the issue of informatization of education on all its stages requires urgent attention to the training of teaching staff taking into account information-communicative competence. In the field of the methods of Ukrainian language teaching of future primary school teachers we define an educational phenomenon of language education competence of a teacher and its information-communicative constituent as chief guiding lines of modern language education training. The basis of this process is the mastering of theoretical footing of electronic language education and mastering of the skills of making electronic language teaching aids depending on specific purposes of their employment.

The outlooks for further scientific researches in this field are in the detection and study of another available and user friendly software for students to create electronic language teaching supplements for language and speech lessons in primary school.

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