

Information culture of a teacher as a factor of the development of the city human resources

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Abstract. The prerequisite for the study has been the need to develop a model for the formation of information culture for bachelors as future foreign language teachers, taking into account the requirements of the contemporary labor market of pedagogical specialties in the framework of developing the urban human resources potential. The purpose of the research is to study the problem in the context of training qualified humanitarian personnel who can meet professional challenges and be competitive candidates in the educational market of a contemporary city. The article discusses the concept of information culture and describes its functions and structural components. The research methods used include a conversation with teachers and students, a survey of teachers and students on key issues, generalization of experience in organizing work with students in the framework of contact and independent work at school and university, as well as experimental training. The authors describe the model of information culture formation in bachelors specialized in the humanities, the means of information culture formation, and identify the levels of its formedness. The formedness level of a bachelor's information culture is proposed to be evaluated according to motivational, substantive, professional and technological, and evaluative-performative criteria. The authors cover in detail the content of the information culture forming process of future foreign language teachers. Research results and novelty are presented by the described model of information culture formation in bachelors as future teachers of a foreign language reflected in the special authorial course. The article offers sample topics and control tasks on a developed course. The article may be of interest to specialists in the field of teacher education, e-learning, and the design of information and educational environments in the humanitarian sector of a contemporary city. The proposed model can be used in the system of professional development of foreign language teachers.

Keywords: urban educational environment, personnel training, information culture.

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1 Introduction

The educational space of a contemporary city implies the interaction of all subjects involved in educational processes, both through personal contacts and indirectly through various information resources. The urban information environment is well developed and abounds in various forms of information presentation. To carry out effective professional activities in the current state of the city's educational environment, a teacher must have a fairly wide range of competencies. The classical requirements for a teacher, such as knowledge of native and foreign languages, psychology, and pedagogy, are supplemented by the concept of information culture which is considered in the works of many scientists, such as V.P. Bepalko, A.M. Korotkov, M.Z. Biboletova, V.P. Sizikov, N.N. Chernenko, E.S. Polat, A.V. Khutorsky, and others.

The formation of information culture in bachelor as a future foreign language teacher will be more effective if:

1. highlighting the general status of information technologies development in the training process which can be used for pedagogical purposes, as well as the prospects for the development of the urban educational environment;
2. using various sources and forms of information presented in the learning process;
3. building learning process based on the developed model for the formation of information culture in bachelor as a future teacher in the open educational space of the city [1-4].

In the reference literature, information culture is most often understood as the presence of special knowledge, skills, and abilities to work effectively with information that provides a variety of available ways to search and use the necessary data ranged from working with the library database and possessing computer literacy to working with the Internet [5]. According to N.N. Elistratova, information culture is a part of the culture of a community or individual which includes awareness of the value of information and the ability to work with it [6]. Among the main functions of teachers' information culture, one may distinguish axiological, concentrating, developing, and regulating features. At that, motivational-value, cognitive, technological (instrumental-activity), and communicative components make up the structure of the teacher's information culture [7].

2 Methods

When working with the article, the authors used analysis of scientific literature, observation of the educational process, conversation with teachers and students, interviews, questionnaires of teachers and students on key issues, a generalization of experience in organizing work with students in the framework of contact and independent work at school and university, as well as experimental training.

3 Results

The teacher's information culture formation model is based on systemic, activity, and competence approaches. The systemic approach implies that the research object and subject are considered as a system, a set of interrelated elements. The activity-based approach is used to improve the effectiveness of the model so that students can acquire skills that contribute to the formation of an information culture independently during practical exercises. The competency-based approach implies the development of students' ability to independently solve problems that arise in the course of professional and educational activities [8].

The proposed model is based on the following didactic principles: professional orientation, differentiation, and individualization, scientific character, communicativeness, increasing the proportion of students' self-sufficiency, novelty, and strength.

To form information culture in a bachelor as a future foreign language teacher, it is advisable to choose the following means: information and communication technologies, which include software (application support software) and hardware as main components [9, 10].

Considering the problem of information culture formation in bachelors as the future teachers in the course of their learning, as well as taking into account the above analysis of this concept, the authors consider it appropriate to assess the level of information culture completeness of bachelors as the future teachers according to the following criteria:

- *motivational criterion* takes into account the desire to implement the teacher's capabilities, namely, creating their authorial digital educational resources, developing methodology, participating in project activities, having skills to work with the open educational space of a contemporary city and the Internet;
- *substantive criterion* takes into account the possession of technical, system, and software components, as well as methodological qualities, namely, the presence of professional and general cultural erudition, understanding the value of information activities, integrating the teacher's activities with these values, using digital educational resources of a contemporary city for self-education;
- *the professional and technological criterion* is applied to assess the set of skills and abilities to use information and communication technology (ICT) in professional activities (both for solving current pedagogical tasks and ensuring information interaction within the team in an educational organization, as well as in the humanitarian realm of the city in general);
- *evaluative- performative criterion* is used for checking and/or self-checking the level of knowledge, skills, and abilities; the presence of achievements in both pedagogical and informational activities; participating in joint projects with peers from other fields of activity [11, 12].

Considering these criteria indicators, one can distinguish three levels of formedness of the teacher's information culture, namely, low, medium, and high.

The model is implemented in certain pedagogical conditions, which include:

1. proper substantiation of educational activities;
2. professionally-oriented content of learning material;
3. development of the student's creative potential.

The implementation of the model should result in a specialist, who:

- has theoretical knowledge in the field of ICT, sufficient for the successful implementation of pedagogical activities, and can work with data in the contemporary urban educational space;
- possesses knowledge at the reproductive level, i.e. can reproduce the information received not only in the course of training but also when accessing the information resources of the city;
- knows how to search and process data using ICT, as well as how to solve professional problems using ICT;
- can independently assess current situation, create an action plan to perform new tasks, and achieve the corresponding goal, as well as offer nonconventional ways to solve problems [13-16].

4 Discussion

Extensive Table 1 shows a model reflecting the information culture formation in bachelor as a future foreign language teacher.

Table 1. Model of information culture formation in bachelor as a future foreign language teacher.

Goal: to form information culture in bachelor as a future foreign language teacher			
Approaches: systemic, learner-centered, activity-based, and competence-based			
Principles: professional orientation, differentiation, and individualization, scientific character, communicativeness, increasing the proportion of students' self-sufficiency, novelty, and strength			
Content of the information culture forming process in a bachelor as a future foreign language teacher			
<i>Cognitive aspect</i>	<i>Developing aspect</i>	<i>Educational aspect</i>	<i>Upbringing aspect</i>
Expanding professional horizons based on comparative analysis of didactic material and its mastering	Developing flexible pedagogical thinking	Acquiring knowledge about approaches to the information culture formation	Mastering the value orientations of a foreign language teacher
		Developing information management skills	Educating a person with a global mindset
	Developing pedagogical motivation	Mastering the experience of using multimedia technologies in the educational process	Training pedagogical responsibility
			Educating tolerance
Means of forming information culture (ICT)			
Software component: general and special purpose application software		Hardware component: studying seats equipped for effective training	
Pedagogical conditions			
Motivating educational activities	Developing students' creative potential	Professionally-oriented content of educational material	
Information culture formedness criteria			
<i>Motivational</i>	<i>Substantive</i>	<i>Professional and technological</i>	<i>Evaluative-performative</i>
The desire to implement their own capabilities	Technical, software, system-based, and methodological components	Set of skills and abilities to apply ICT in professional activities	Diagnostics (self-diagnosis) of knowledge, skills, and abilities
Levels of information culture formedness			
Low	Medium	High	
Information culture presence indicators			
Fragmentary theoretical knowledge and skills of	Possessing knowledge at the reproductive level (reproducing	Using data search and ICT-based processing tools; solving professional	Ability to independently assess current situation, create an action plan to perform new tasks and

working with data	information received, operations and actions learned in the learning process)	tasks using ICT	achieve the corresponding goal; ability to offer nonconventional ways to solve problems
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The proposed model was tested in the framework of a training course to form information culture in bachelors as future foreign language teachers. The training course is designed for 10 academic hours and contains information and tasks on seven key topics:

1. General information about computerization, the Internet, the concepts of “Information culture”, “Digital educational resource”, and “Electronic educational resource”.
2. Safe work on the Internet. The concepts of “Computer virus”, “Antivirus”, precautions when working on a computer and searching for information to prepare for classes.
3. Searching for information on the Internet. Using search engines. Bibliographic resources on the Internet. Familiarizing with the city's information resources.
4. Working with office programs using the Microsoft Office Suite as an example.
5. Working with Microsoft PowerPoint. Creating interactive presentations, games, and tests based on learning material.
6. Creating, editing, and maintaining a teacher's personal website using the Website Builder as an example.
7. Distance learning. Concepts, rules, and aspects. Opportunities for an application.

Below is a brief description of one chapter of the course, namely, General information about computerization, the Internet, the concepts of “Information culture”, “Digital educational resource”, and “Electronic educational resource”.

This section is designed as the introductory topic of the course. Its purpose is to familiarize the reader with the main concepts that will be used during the course, as well as the chronology in the development of modern computer technologies, focusing in more detail on the last decade, as well as giving the most likely projected development of computer technologies.

The topic includes the following issues:

1. The emergence of the first computer networks;
2. The File Transfer Protocol, WorldWideWeb;
3. Computerization of education;
4. Mobile platforms: history and prospects of use;
5. Control tasks.

Table 2. Final tasks for assessing the level of formedness of the bachelor's information culture after studying the course.

Criterion	Tasks
Motivational	<ol style="list-style-type: none"> 1. How often would you like to use the digital educational resource (DER) in your classes? 2. Will you create DER customized for your personal needs?
Substantive	<ol style="list-style-type: none"> 1. Is your university equipped with computers? 2. Do you have a ready-to-implement methodological program using ICT?
Professional and technological	Checking the portfolio of tasks completed during the course
Evaluative-performance	<ol style="list-style-type: none"> 1. Tell us about bibliographic resources on the Internet; 2. How to create an interactive presentation in PowerPoint? 3. What should be the professional website of a teacher? 4. Distance learning: opportunities for application.

5 Conclusion

The developed model can be recommended for use in the preparation of training courses or programs aimed at the formation of the teacher's information culture in the urban educational space.

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