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# Multimedia technologies as an educational environment in the formation of sociocultural competence

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## Abstract

This article is dedicated to the features and importance of using multimedia technologies in education and their role in the formation of sociocultural competence via comparative qualitative research methods. As a result, computer technologies increase the efficiency of education, they help to increase student motivation, reveal the potential for learning foreign languages and ultimately contribute to the formation of sociocultural competence. In conclusion, the use of computer technologies in the process of teaching foreign languages, is an indispensable resource for the formation of sociocultural competence.

**Keywords:** Multimedia technologies, Sociocultural competence, Environment.

## Las tecnologías multimedia como entorno educativo en la formación de competencias socioculturales

### Resumen

Este artículo está dedicado a las características y la importancia del uso de tecnologías multimedia en la educación y su papel en la formación de la competencia sociocultural a través de métodos comparativos de investigación cualitativa. Como resultado, las tecnologías informáticas aumentan la eficiencia de la educación,

ayudan a aumentar la motivación de los estudiantes, revelan el potencial para aprender idiomas extranjeros y, en última instancia, contribuyen a la formación de la competencia sociocultural. En conclusión, el uso de tecnologías informáticas en el proceso de enseñanza de lenguas extranjeras es un recurso indispensable para la formación de la competencia sociocultural.

**Palabras clave:** Tecnologías multimedia, Competencia sociocultural, Medio ambiente.

## 1. INTRODUCTION

Terms informatization, computerization, mastery of modern info-communicative technologies are often used in the characterizing of modern society. The educational process follows this trend along with the whole society. Information technologies today are an integral element of teaching in all subject areas. Most scientists believe that the introduction of computer technologies into the educational process allows open and quick access to the necessary information. Russian linguists apply computer systems in language studies as well. In this regard, the concept of informatization of the educational process comes to the forefront. It means providing educational institutions with practical and methodological characteristics of the optimal use of information technologies. The benchmark of this concept is aimed at realizing all the goals of the educational process (GÜNTHER, 1994).

The main part of the modern educational process, in the framework of informatization, is the use of multimedia educational technologies. The very concept of multimedia technology includes a

set of interactive technologies that provide work with video images, still images, texts, sound, animation. At this stage of the introduction of multimedia technologies in the educational sphere, the principle of integrability is brought to the forefront. It involves the formation of integrative interactions and connections that allow a more vivid and clear presentation of the subject characteristic, reflect the relationship between the sections of the subject and its modules. Such connections allow you to include a computer in the educational process, combine computer and traditional teaching methods.

Multimedia educational technologies quickly became widespread in the educational area: multimedia dictionaries, encyclopedias, textbooks, etc. Application and use of multimedia technologies in the educational process contribute to the development and formation of students' creative abilities, provides new opportunities for organizing the educational process. Working with multimedia technologies requires the organization of various active forms of work in the classroom and extracurricular activities in the subject. They require a sufficient amount of equipment in the classrooms (DONATH & VOLKMER, 1997).

## **2. METHODOLOGY**

Computer competence refers to the ability to effectively use computer technology and the ability to apply them in accordance with goals and objectives.

To implement computer competency, the person must be able to:

- Navigate the world of computer technology;
- Use computer technology;
- Act creatively and work in the world of multimedia;
- Select and use information obtained using computer technology;
- Communicate through the use of information and computer technologies.

In the process of implementing the main components of computer competence and computer literacy, it becomes possible to expand the aesthetic experience, as well as to reveal the socio-cultural behavior of students. These opportunities contribute to the formation and development of adequate thinking and contribute to the perception of socio-cultural space (DECKERS, 1997). When learning a foreign language, computer competence should be possessed not only by the teacher but also by the student. When forming students' computer competence, it is important to rely on the basic didactic principles that contribute to the cognitive and intellectual development of students, as well as improving the efficiency of the process of learning a foreign language. These principles include:

- The principle of science. This principle helps to improve the presentation and organization of educational material, taking into account the intellectual and creative characteristics of a person.

- The principle of consciousness aimed at providing in a computerized process of training a conscious choice of adequate pedagogical and educational goals.
- The principle of accessibility, providing wide access to multimedia information.

Thus, we can conclude that the formation of computer competence among students helps to broaden their horizons, the formation of positive and adequate ideas about the socio-cultural space.

Learning a foreign language using a computer has several advantages:

- Students' interest in computers leads to high motivation in the learning process.
- Students are willing to have a dialogue with the computer, their general, computer and language culture is improving.
- Individualization of training (ENGEL & KLEIN, 1999).
- The ability to provide direct feedback.
- The computer does not show negative emotions when repeating errors: objective marking.
- Effective implementation of exercises and training is provided.

In the process of learning a foreign language, a computer makes it possible for students to develop their communicative skills in real-time, real situations. This can occur by performing various exercises:

1. Communication in a foreign language through the use of computer programs.
2. To model and play speech situations with the help of graphic sources, multimedia, and video programs, creating contacts in a foreign language environment.
3. To carry out testing and training in the form of dialogue.
4. Use a visual speech situation as an incentive, support for the implementation of a communicative act (BECKER, BLELL & RÖSSLER, 2016).

A personal computer can be used by a teacher to solve personal didactic tasks during the lesson:

- Presentation of information in various forms;
- Formation in students of general and special knowledge and skills in the subject;
- Control, evaluation, and correction of learning outcomes;
- Organization of individual and group training;

- Management of the learning process.

A computer can be used at all stages of the learning process: when explaining new material, fixing, repeating, monitoring.

Computer tutorials have many advantages:

- They allow you to train different types of speech activity and combine them in different combinations.
- Help to understand linguistic phenomena.
- Form linguistic abilities; create communicative situations.
- Automate language and speech skills, and also provide the ability to account for a leading representative system.
- Implementation of an individual approach and the intensification of the student's independent work.
- Contribute to increasing cognitive activity, motivation and quality of knowledge of students.
- Individualization of training is provided.
- Students are willing to have a dialogue with the computer, their general, computer and language culture is improving.

- There is the possibility of providing direct feedback.
- The computer does not show negative emotions when repeating errors.
- The mark is more objective.
- Effective implementation of exercises and training is provided.

Learning with a computer has its drawbacks:

- Abuse of computer effects, redundancy of colors.
- It is very difficult to adapt ready-made educational computer programs in a subject to a traditional lesson since they do not always correspond to the work program of the discipline, methodological goals, and didactic principles in teaching (APEL, 2011).

### **3. RESULTS**

The introduction of such technologies requires the enormous work of the teacher. They must develop other educational tasks that differ from traditional and generally accepted ones, as well as transferring these tasks to multimedia technologies. Multimedia programs in education contain a certain set of components, the use of which in the educational process allows the teacher to visualize the material offered in such a way, that

students easily can draw logical connections. This set of components includes the following aspects:

- Interaction of various information blocks. Simultaneous work and translation on the screen/computer of text, graphic, sound files.
- Interactivity. The user's interactive mode with a source of information, where he chooses information, the amount of information, its visual form.

Besides, the use of multimedia technologies allows students to perceive information by several senses at once. We can also attribute here such positive aspects of using multimedia technologies in education as:

- Increasing motivation for the subject under study. Using information and communication technologies in the lessons of a foreign language, students are actively interested in the issue, topic. The student becomes the center of the learning process and can choose for himself a convenient option, explore, show imagination, and reflect.
- A deeper understanding of educational material. When using information and communication technologies in the lessons, the student is not limited to the material provided by the textbook but can receive additional material from the Internet (KORNIG, 1997).
- Increased speed of learning and perception of educational material. Interacting with various sources while working with a

computer, all touch analyzers are activated in students, working simultaneously on one task, they allow to perceive, analyze educational material faster and better.

- The possibility of independent training of educational material, self-control of the subject development. Today, there are large numbers of training programs, simulators, using which students can independently train the training material.

In educational activities, the use of multimedia technologies can be considered in three different forms:

- A computer as a simulator. To use the computer as a simulator in foreign language lessons, the Finnish SANAKO program is well suited. It allows you to master the material by the repetition of the same tasks. Besides, this program contains functions that allow you to train listening, speaking, reading and writing.
- A computer, as a tutor, which partially serves as a teacher. A computer can be a source of educational information (partially or completely replacing a teacher or a book), a visual aid (of a qualitatively new level with the capabilities of multimedia and telecommunications), an individual information space, and a diagnostic and control tool.
- A multimedia device, as a device through which a specific learning environment is modeled. In an environment where a multimedia device is used, the formation of learning situations

occurs where a student becomes not only a participant but also an organizer of this activity (ISSING & KLIMSA, 1995).

Given the characteristics of multimedia educational technologies discussed above, we can talk about the need to create a special educational environment, taking into account the above-mentioned components. We call such an environment in a multimedia educational environment.

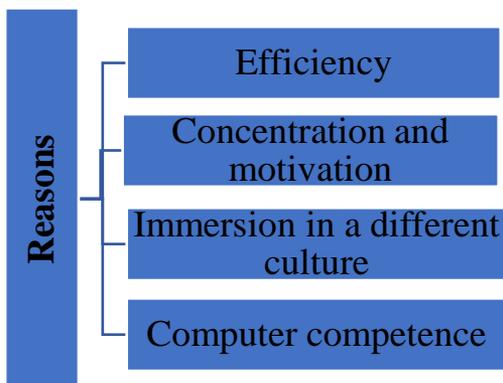
#### **4. DISCUSSION**

In our opinion, the multimedia environment is a logically structured and well-organized structure where, based on multimedia resources, all kinds of conditions are created that contribute to the educational and upbringing process. The organization of the multimedia educational environment is structured in such a way that the management of the pedagogical process becomes possible not only by the teacher but also directly by the student himself. It creates the prerequisites for an independent study of subjects. This is the exact moment when the formation of sociocultural competence takes place. This process has several mandatory postulates that must be implemented.

This broad information environment is becoming available through the use of the Internet. It is with the use of Internet resources that it becomes possible to use authentic texts, ways to listen and communicate with native speakers appear outside the language

environment. During the process of learning this type of reading students try to predict the content of the text from the title or the first sentences of the text, emphasize the semantic meaning, guess the meaning of the keywords and avoid unfamiliar words without interfering with understanding the main content.

As mentioned above, the use of multimedia technologies in the lessons is attractive in the educational process, however, the benefit from the data can be most clearly seen in the examples of the subjects of the humanities, especially in foreign languages. Russian and foreign teachers identify several main motives for using multimedia technologies, which are reflected in the table below:



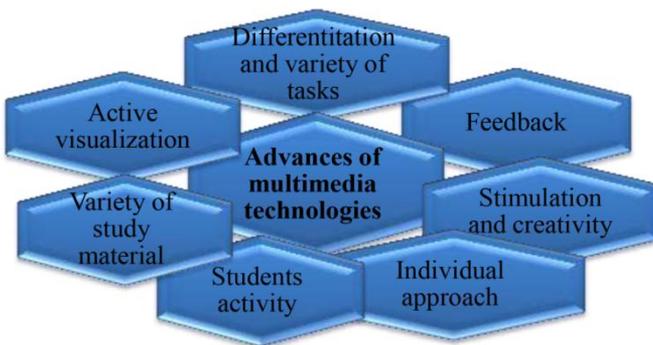
Pic. 1: Reasons for the use of multimedia technologies

Various resources offer a variety of tasks, training materials that differ from the traditional ways of presenting training material. The use of information and communication technologies in foreign language classes

makes it possible to present the material clearly, helps to improve the quality of education and reduce student fatigue.

One of the most important aspects in the application of multimedia technologies is the real possibility of implementing an individual and differentiated approach to learning since it becomes possible to take into account the training of students, the development of tasks of varying degrees of difficulty within the same subject. Here, an important principle of feasibility and accessibility of tasks is implemented taking into account the individual pace of students.

The active and creative nature of the training tasks created and applied using multimedia and computer technologies excludes the passive participation of students in the educational process, which also contributes to the subsequent motivation for independent deeper study of the subject. Speaking about the advantages of working with a computer and the use of multimedia technologies, the following can be distinguished:



Pic.2: Advances of use multimedia technologies

Student activity means two-way communication — the student's dialogue with the computer, interactive forms of working with educational material. It organizes the interactive work of students during the lesson, which allows you to generate the skills necessary for mastering the subject dynamically.

Since the main goal of modern humanities is the formation and development of a harmonious person, and the first place is taken by a personality-oriented approach. It can be argued that the computer technologies used in the lessons of a foreign language meet the specified requirements for education, as well as contribute to the formation and development of a harmonious personality.

In this regard, it is worth considering the computer-information model of education, the essence of which is the formation of a motivated personality who can make decisions in accordance with a specific situation, sociocultural and communicative orientation. It is important when studying the possibilities of using computer technologies in teaching foreign languages, to consider the concept of computer literacy and computer competence. The contents of computer literacy, its main components are clearly stated in their writings by German researchers. According to their research, a computer literate specialist should be able to:

- Create your information;
  
- Keep information;

- Look for the information;
- Convert information;
- Use modified information;
- Counteract the effects of information that reduces the ability to influence the environment.

B. Rüschoff in his writings focuses on the fact that the content of computer literacy is primarily associated with knowledge of the basic concepts and principles of computer technology. Koerber presented the content of computer literacy as a classification of levels of computer literacy, which included the following components:

- Ability to use programs for working with a computer;
- Familiarity with the basic concepts;
- Programming skills.

Of course, we understand that the above components of the content of computer literacy are more focused on the course of computer science, however, relying on them, we can highlight the main characteristics and apply them in the area of humanities. So, we can say that the teacher of humanities should be able to present the structure of the task in a clear and concrete form, to determine

probable difficulties, expected results, with the help of the computer. Thus, we can define computer literacy as the ability to solve problems using computer technology, plan actions, anticipate their consequences, own a minimal person, as well as a minimum amount of knowledge from the area of computer science. It is customary to distinguish five levels of computer literacy of a teacher:

1. General computer skills;
2. The ability to work in the MSOffice program;
3. The ability to use and apply database management systems;
4. Structuring information, creating electronic resources, creating sites;
5. Logic, ideology, programming.

These levels can also be considered as constituent components of computer literacy. Having considered the concept of computer literacy, we can define the concept of computer competence, since these two concepts are closely interrelated with each other. The active and appropriate use of a computer in a foreign language lesson seems possible and appropriate based on the specifics of the subject. When learning to listen, each student gets the opportunity to hear a foreign language speech. In teaching speaking, each student can pronounce phrases in a foreign language into the microphone. When studying

grammatical phenomena, each student can perform grammar exercises, can solve crosswords, puzzles, search for words, and perform game exercises. So, computer technology helps:

- To attract passive listeners.
- To make classes more visual.
- Provide the educational process with new, previously inaccessible materials that help students to show their creative abilities.

Thus, we can say that the use of computer technologies in teaching foreign languages has a positive effect on the formation of cognitive interests among students, broadens their horizons and encourages research. The need to study foreign languages, which also implies the study of foreign culture, has become today an integral part of the pedagogical, educational and upbringing process in the modern education system. The most high-quality and effective formation of sociocultural competence is carried out through the use of modern computer technologies, the use of which contributes to immersion in a linguistic authentic and inauthentic environment, require students to work, use the elements of research. Studying in the lessons with the help of computer technologies contributes to the independent development of key skills that a competent, competitive person should possess today.

In this regard, we believe that it is necessary to combine the study of cultures, languages, learning technologies to solve problems associated with the formation of sociocultural competence. Thus, the use of computer technology is a syndicate of research, creative, educational activities of students aimed at achieving results and developing sociocultural competence using computer technology. The widespread use of computers, multimedia technologies, and the Internet has influenced the education system, causing significant changes in the content and methods of teaching foreign languages. The use of ICT in the educational process has several advantages: additional opportunities are created for the development of students' creative skills, and interest in the scientific activity is inculcated. The use of multimedia technologies allows students to work with educational materials in various ways: students choose the method of studying the material themselves, using the interactive capabilities of technical means. Using a computer allows you to optimize the learning process.

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