

# THE APPLICATION METHODS OF MEDIA TECHNOLOGIES IN PRACTICAL TRAININGS OF NATURAL GEOGRAPHICAL SCIENCES

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**Abstract:** *The importance of practical training in geographical education, the purpose of training and its methodic requirements are demonstrated in this article. The detailed information is given about how to work with various maps and globes, digital indicators in the basics of practical training in geography education, forming of skills and qualifications such as, monitoring of natural phenomena, as well as the methodology of conducting practical training of natural geographic sciences is widely illuminated through media tools, information and communication technologies and software products.*

**Key words:** *media tools, natural geography, practical training, software product, caliber, map without record, efficiency.*

**I. INTRODUCTION.** At the Present time, the enjoyment of youth from the advances in science and technology, the stability of peace and harmony in society is creating opportunity to further enriching their knowledge, to mobilize all their might into noble deeds. Big works are being carried out to realize all potential of youth in our country. Because the destiny of every country, of course, depends on how young people are brought up. The role of education is immensely big in the shape of broad outlook, labor activity, scientific potential, in the struggle of youth for the fate of their country. This, in turn, helps to do the harmonization of education and upbringing in educational institutions, equipping young people with modern knowledge, supporting their initiatives, raising cultural level to the requirements of time, revealing the talents of youth.

Today, one of the main tasks is the widespread introduction of information and communication technologies into the educational process, the improvement of the quality of education through the effective use of media, electronic resources and the Internet in the lessons. The main purpose of the introduction of information and communication technologies in the educational process is to create a modern information environment in the education system and the introduction of new types of education. While information and communication technologies have a great impact on the development of students' theoretical and creative thinking, they provide a figurative representation of a particular phenomenon in a student's memory and contribute to its academic development.

**II. THE PURPOSE AND OBJECTIVES OF THE WORK.** The use of media which is considered as the means of information and communication technology in our country is widely used in the education process. According to experts, the lessons based on media technologies will teach students to think

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independently, to develop their creative activity, to get information, to process it, to summarize it and to draw conclusions [1]. The better the use of media technologies in the education process, the better it will be for the younger generation to develop their mentality and intellectual potential.

**III.THE MAIN PART OF THE PAPER.**The main tool to increase the effectiveness of the classroom activities and to keep students active during the whole classroom activities is their practical exercises. Many practical training are required in geography education. Practical training is based on the content of the course; the purpose of the practical exercises is to work with various maps and globes, digital indicators, developing skills and qualification by observing natural phenomena, the consolidation of the theoretical knowledge acquired is the basis of practical training. Practical tasks require special preparation from both geography teachers and students. Practical tasks should be taught to the students slowly, from simple, elementary tasks to more complex tasks, by using the “from simple to complex” method of teaching.

Practical training allows students to apply theoretical knowledge in practice, to master the materials consciously and thoroughly, to form qualification and skills that have practical importance.

Practical activities determine the proportion of student-teacher activity. Such exercises can be performed both by students in public and with the teacher. Once students have mastered methods of mass work, such as reading a map, giving a geographical description of a particular area through map, they will have the opportunity to do the work independently [2].

Practical training requires careful preparation from both geography teachers and students.

The following methodological requirements are given to the practical work done by students [3]:

- Practical training should be appropriate to the abilities and training of the students, that they will be able to do so, and to develop the creative initiatives of their thinking abilities;
- Practical training of students should be further developed by using the acquired knowledge, skills and experience;
- It is important to keep in mind that the content of practical exercises is diverse and interesting, and that their results should provide students with innovation;
- It is desirable that the results of each practical training to be analyzed, discussed and evaluated and to establish competences for the practical application of the knowledge, skills and abilities gained through theoretical information in the learning process.

With the development of modern media technology today, the use of electronic software in educational systems, including in doing practical training carried out in geography lessons, is a requirement of the time. Media technology is the preparation of electronic documents, including visual and audio effects, programming different situations under the single control of the interactive learning process. These technologies are one method of communication, a product of human activity. Consequently, their use can be achieved by increasing the quality of education and students' interest in science, saving time for learning and deep learning of the material due to the simultaneous influence on several sensory organs, organization of trainings through the local network, introduction of distance and electronic education.

The availability of such technologies makes it necessary for students to have special tools to help them manage it. These are multimedia communications or simply multimedia tools (MMS). MMS package is one of the part of the great potential of media education technologies. Their use in the learning process creates the maximum level of interactivity, sensitivity and wealth of information. [6] Multimedia Electronic Information Resource is electronic information and educational resource that complements the textbook and its teaching material includes a variety of information tools - text, graphics, sound, and video clips. Examples of multimedia electronic information and educational resources are video clips on the theme of certain subject (for example, introduction, physics, demonstration of laboratory work on chemistry, the process of plant growth and etc.) [4].

Multimedia is a tool of media technology to explain, present and deliver information`s educational materials via sound to students through the use of software and hardware tools and in media technology, students have the

opportunity to consolidate their acquired knowledge by using interactive teaching functions which exercise gained knowledge as well as seeing and hearing in receiving educational materials.

Scientific and methodological support of teaching consists of the following media technologies:

1. Social media technologies - active participation in social relations, acquiring skills and knowledge, sharing information with outsiders, expanding the database;

2. Individual media technologies - consistently improving information, increasing the level of natural geographical skill, demonstrating their internal capabilities in the pedagogical activity;

3. Methodological media technologies - methodical organization of pedagogical process, teaching natural geographical sciences in HEI, correctly identifying forms of information media education, purposeful choice of methods and tools, effective use of interactive methods in the process of media education, the achievement of guaranteed results in educational process by using media technologies;

4. Information media technologies – searching necessary, important and useful information in the information environment, collecting, sorting, processing and the purposeful, reasonable use in the process of media education, being informed from media technological skills as well as credit education, distance learning;

5. Creative media technologies - creative and critical approach to students in the teaching of natural geographical sciences, creativity, the ability to demonstrate creativity skills;

6. Innovative Media Technologies - enhancing the quality of education for students in improving the natural geographical sciences; promoting new ideas for improving the effectiveness of the process of media education, their successful implementation in the practice of media technology education;

7. Communication Media Technologies – the ability to communicate with all participants of the media education process, to receive and convey information correctly, to communicate in foreign languages; to have geographic knowledge about geographical map, countries, topographies on the Internet, to create geographic websites on the Internet;

8. Media technological approach - natural geographical knowledge, mastering advanced technologies for enrichment of skill, effectively use of the modern technical means, techniques and technologies in practice;

9. Psychological media technologies - to create a healthy psychological environment in the process of media education, to improve the information base regarding various media literacy, to timely understand and overcome the negative psychological conflicts.

Students' media technological qualifications arise from new forms of education in the process of teaching and learning, as the result of mastering independent natural geographical materials, besides the lessons and learning.

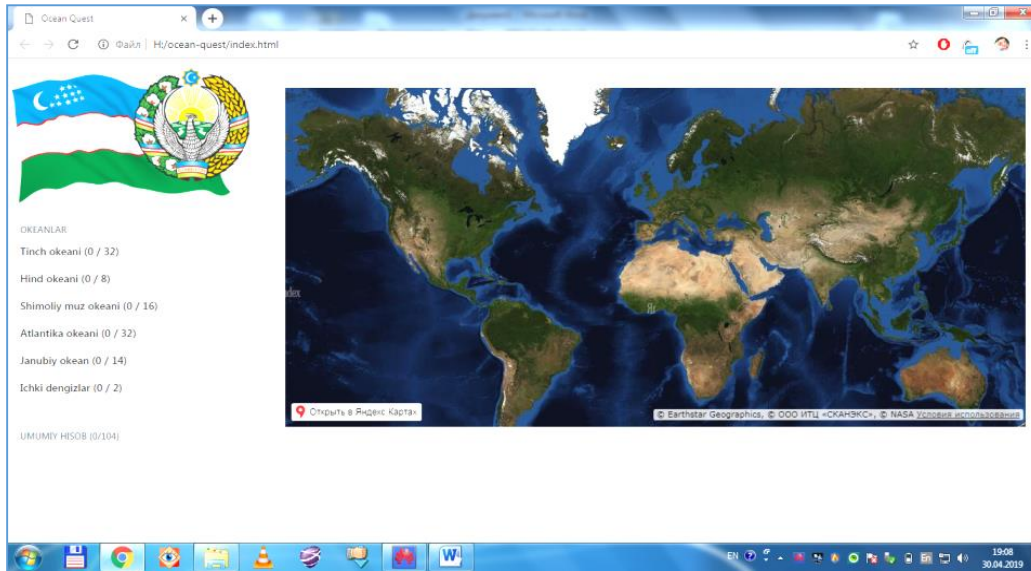
Thus, the wide use of media technology and the use of the Internet in the implementation of natural geographical disciplines will increase computer literacy, media literacy, media competence and media culture as well as increase students' interest in science during the practical exercises. 94 hours of practical lessons are taught in order to reinforce the topics highlighted in the educational program of “General natural geography” subject. It is clear that the practical work on the topic is important for students to be able to apply gained theoretical knowledge in practice. This article recommends a methodology for the use of software in the field of “Geographical Practical exercises” with the use of media technology used for practical classes in “General Natural Geography”. This media technological software product is designed for students, masters, scientific researchers and professor teachers who study geography in higher educational institutions.

Students will be able to apply gained theoretical knowledge that they have learned during the classroom lessons in practice and will be able to complete practical tasks through the program via any media-enabled computer, tablet, smart phone and others. The program is created in the format of html through JavaScript and query. The software is downloaded and it runs from any modern browser. To launch the program, we will open the index.html file in the web browser.

To run the program, the media tools should be connected to the Internet. Because the geographical map of Yandex will be downloaded and based on this, practical lessons will be completed.

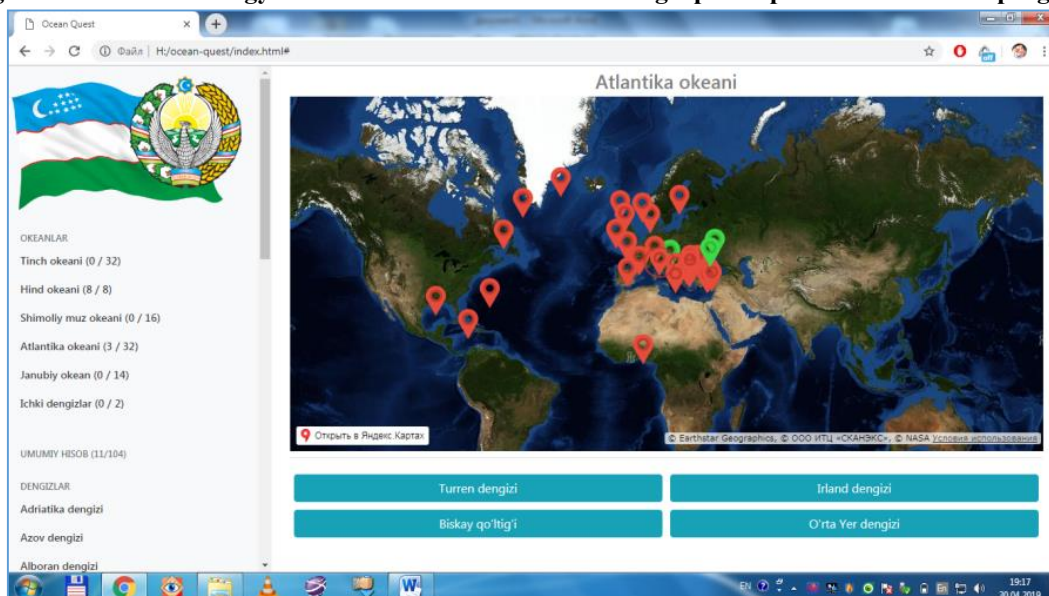
The map will be loaded after a few minutes. This usually takes from 1-2 seconds to 10-15 seconds depending on the internet speed. The map is the natural map of the World and there is the possibility of mapping without a record the World Ocean, seas, gulfs, bays, deep waters, World Ocean currents, rivers, lakes and glaciers (Figure 1).

**Figure 1. World natural map mirror**

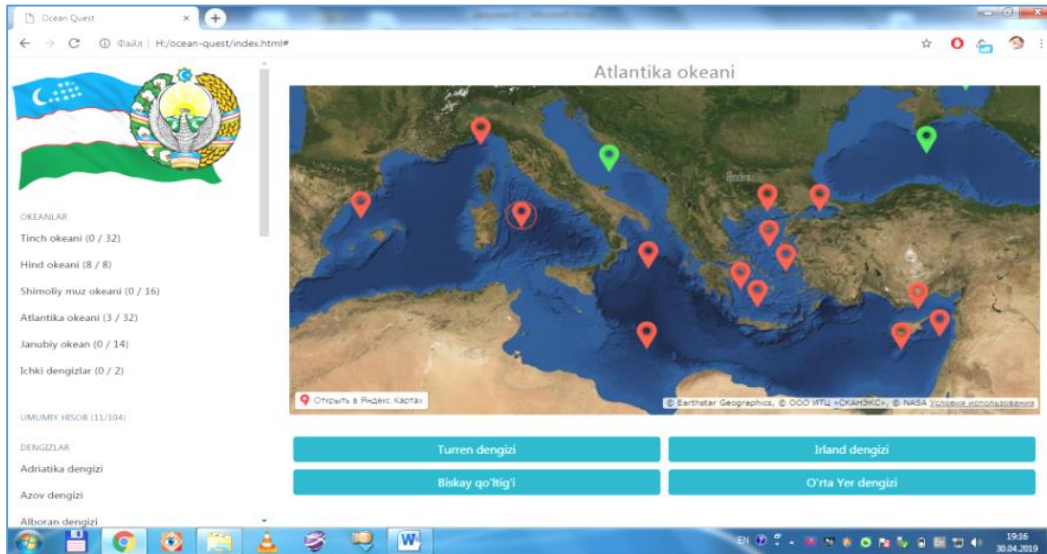


When the map is downloaded, the program will be fully operated. Students from the “Oceans” section of the “Geographical practical exercises” of media technological program choose any ocean and complete their practical tasks. The student can freely change the scale of the World natural map of “Geographical practical exercises” of the media technological program. This gives students a good opportunity to fully complete practical exercises. (Figure 2-3).

**Figure 2. Media technology is the small scaled mirror of “Geographical practical exercises” program**



**Figure 3. Media technology is the enlarged mirror of “Geographical practical exercises” program**



The student will be able to identify the location of seas in the oceans and strengthen their theoretical knowledge with the help of this media technological program “Geographic practical exercises”. If the students find the seas in the ocean correctly, the signs will be green, otherwise they will be red and the student will be given more opportunity.

The practical exercises completed by the researcher with the help of media technological software products were analyzed using the “SWOT analysis” method.

**SWOT analysis**

**The media technological program “Geographic practical exercises”**

<b>Strengths:</b>	<b>Weaknesses:</b>
-It increases student's information literacy;	- the lack of media literacy of user;
- It develops student's creative ability;	-small size of memory of reception of modern technical means
- Practical tasks will be performed by any media tools that can connect to the Internet - computer, tablet, smart phone ;	- high speed of internet access;
-Except for lessons students spend their free time effectively	-Inadequate level of user knowledge.
<b>Opportunities:</b>	<b>Threats:</b>
- presenting mapping without a record the world oceans, seas, bays, gulfs, deep swamps, World Oceanstreams, rivers, lakes and glaciers in the systemto online users;	-low internet speed;
-Users complete practical exercises online on each oceans	-Misunderstanding of GIS technology;
- providing download ofnatural geographic map as required for users;	-The inability to use of modern technologies
-the assessment of user knowledge.	-not accepting positively modern methods in the education system introduced by professor-teachers.

**IV. CONCLUSION.** In summary, in the course of these geographical practical lessons, students' media literacy and creativity are enhanced. One of the positive aspects of practical exercises with the use of media technologies is that the student's learning activity becomes more active, his / her interest in the subject increases, his / her teacher can be creative, not waiting for his or her free time, if necessary. The following recommendations have been developed based on the conclusions:

- To develop the scientific and methodological support of teaching based on media technologies from other sciences in geography and to introduce the new software that increases the intensity of their learning.

- In the context of new pedagogical technologies and innovative teaching approaches to the education system, it is necessary to further improve the software training programs on the basis of media technologies to meet the modern educational needs and requirements of the society and extend the effective use of the experience of developed countries to other sciences of geography.

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