

**Ragrina Zhanna Michaylivna**

Ph.D, Associate Professor of language training department,  
Zaporizhzhia State Medical University, Ukraine

**Zherebiatiev Oleksandr Serhiiovych**

PhD, Associate Professor of the Department of Microbiology,  
Virology and Immunology,  
Zaporizhzhia State Medical University, Ukraine

**Yehorov Artem Anatoliiovych**

Ph.D, Associate Professor of the department of  
pharmacology and prescription with a course of normal physiology,  
Zaporizhzhia State Medical University, Ukraine

**OPTIMIZATION OF THE TEACHING MEDICAL AND  
PHARMACEUTICAL DISCIPLINES BY THE IMPLEMENTATION  
OF ONLINE-APPLICATIONS AS ONE OF CONDITIONS FOR  
PROFESSIONAL IDENTITY FORMING**

***Abstract.** Modern online tools are analyzed. Virtual online-boards are highlighted. The advantages of services on mindmapping are characterized. The necessity of using multimedia support during the study medical and pharmaceutical disciplines is highlighted.*

***Keywords:** medical and pharmaceutical disciplines, online-applications, medical students*

**Introduction.** The requirements for the training of specialists in higher education institutions, especially the medical and pharmaceutical profile is necessary according to the reforming and restructuring of the national education system. The main task of such requirements is the formation of students' identity for the future professional activities. Seen this a priority is a searching of new forms, methods and technologies to improve the efficiency and effectiveness definite process. The need to modernize the system of students' training in higher education institutions is conditioned, first of all, by updating its content, reorienting to

international educational standards, and involving in the educational process of pedagogical innovations. The necessity of the system modernization of students' training in higher education institutions is demanded, first of all, by updating its content, reorienting to international educational standards and involving in the educational process of pedagogical innovations.

The study of foreign experience shows that most innovations are related to the development of modern interactive learning tools. Unfortunately, the national practice of teaching prefers using of the traditional methods. Insufficient attention to the problem of online technologies development and implementation in pedagogical theory and practice, specificity of its application during the training of medical and pharmaceutical students has determined actual research.

**Methods and materials.** The innovative methods of teaching have been analyzed in the pedagogical theory. They are oriented to the effective acquisition and mastering of knowledge by students, development of their intellectual abilities, formation and consolidation of professional skills, skills of search and scientific work, acquisition of qualities that will facilitate the professional realization of future specialists. A separate place among the innovative teaching methods the interactive type plays an especial and important role. The interactivity is a principle of constructing and functioning pedagogical, psychological, and computer communication in the dialogue mode [3].

The purpose of using interactive methods for studying at higher medical schools is a providing comfortable teaching conditions that will promote more qualitative and effective preparation for future activity, formation of the skills and abilities which are necessary and sufficient for solving professional tasks, development of critical thinking and formation personality.

Special attention should be paid to the abovementioned methods for the study of medical and pharmaceutical disciplines [2].

In view of the fact that the activities of future pharmaceutical specialist are based on saving and strengthening of human health and the prevention of various diseases, the researching and the improving of new effective medicines for treatment and disease prevention.

The lectures and practical classes with using the multimedia supporting is one

of the effective forms of teaching. We suggest to enrich and diversify traditional lecture and practical classes with multimedia presentations, which can radically transform the educational process, and influence the students' perception of the educational material.

The possibilities of interactive perception of the study material allows not only the synthesis of unique educational horizons, but also creates a more comfortable learning environment where the student plays an active role, It's positively influences and increases his internal self-assessment. The Microsoft Power Point is a main tool for creating multimedia presentation in the modern teaching practice, This software is part of any Microsoft Office package for a personal computer.

For example, it is important to create and develop a complex of multimedia presentations for the main topics as "General Pharmacology", "Pharmacology of the Autonomic Nervous System", "Pharmacology of the Central Nervous System, "General and special microbiology", "General and special virology", "Fundamentals of Infectology".

However, a specific complex of multimedia presentations should not include only demonstration material, but it also consists of practical exercises that will add the learning process efficiency. Therefore, we suggest to involve to the practical classes material of disciplines ("Microbiology, virology, immunology", "Pharmacology"), training exercises that would help future specialists to get new professional skills, to avoid errors and difficulties in forming the basis knowledge of chosen profile. Features of special computer training programs such as Learningapps, Flippity will allow you to design exercises with tasks such as: "Matching", "Separating Required Information", "Grouping," "Finding Options," etc.

Among the simplest online tools are also virtual boards that open up space for drawing, writing and others functions. The most common services are Classroomscreen.com and Twiddla. Applications do not require registration and work with any browser. Both applications are multilingual, have a user-friendly interface and a wide arsenal tools: from adding a variety of shapes, the presence of creative tags, work with text fragments, images and other media to a virtual chat with visitors (available in Twiddla).

Online-board Gynzy is already more advanced. It is the virtual online-board with the ability to create interactive exercises and tasks. With the help of the service you can create original classes and involve students in teamwork. It is possible to work with a board in several modes. First one is ordinary. It is similar to Whiteboard Teams. It contains animated tools. Second one is an advanced. It provides using different templates for the organization and presentation of educational material [9]. You can choose the most optimal templates according to the discipline, occupation or educational purpose. It also contains a library of interactive exercises.

One more compact and very easy for using is the virtual sticker board Scruml. It is fully free and does not require registration. It provides services for the joint work of several users simultaneously.

Another online-platform is Renderforest service platform. It allows you to create educational slide shows quickly, to prepare animations, educational videos, etc. It has a lot of templates and blanks, but you can also experiment with your video.

The possibilities of services for Mind Mapping (Spiderscribe.net, Mindmeister, MindMup, XMind) will stimulate students' mental activity, since teaching material in this way is an alternative to traditional means of processing and transferring information (abstracts, charts, tables) [2].

Besides some Mind Mapping services support the work of several people creating one mental map, and therefore it can be teamwork in online mode, for example, the creation of a topic project. Cooperative Mind Mapping enhances the interest in the subject, promotes the creation of a certain emotional mood in the group, which is engaged in the creative ability of students.

Taking account of the fact that the development of technical progress and the requirements for the training of future specialists will be effective and appropriate to provide audiences for practical training using modern learning tools, including interactive whiteboards and projectors. On the condition that departments are equipped with the abovementioned tools, we propose to develop a set of exercises and tasks for the lessons using the software package "Smart Notebook" and the interactive tools kit "Easy Interactive Tools". It will allow to create original classes with a distinct structure. The software package "Smart Notebook" is easy-to-use, has a

user-friendly interface and allows you to work simultaneously with text, graphics, video and audio data.

Using animation, moving objects, changing and selecting the most important elements by color and font will help put in place the visual, audio and kinesthetic channels of learning information. And it also will increase the motivation of students to study the discipline and the quality of knowledge acquisition [7].

**Conclusions.** In conclusion it should be noted that systematic work with active and interactive learning technologies will ensure the integrity and consistency of the learning material acquisition, increase the motivation and quality of the training process, create optimal learning conditions and allow all students to be involved in collaboration, stimulate the development of their mental and creative activity.

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