Новітні освітні технології у професійній підготовці конкурентоспроможних медичних та фармацевтичних фахівців

UDK: 621.372

ELECTRONIC LECTURE NOTES AS A MODERN EDUCATIONAL TECHNOLOGY IN PROFESSIONAL TRAINING OF COMPETITIVE MEDICAL SPECIALISTS

Berezutsky V. I.

State Establishment «Dnepropetrovsk Medical Academy» of Health Ministry of Ukraine, Dnipro, Ukraine.
Berezut@ua.fm

Summary: This article is devoted to the problem of improving educational competence for medical students using modern educational technologies. The article analyzes positive experience of using electronic lecture notes to improve educational program.

Key words: medical university, electronic lecture notes, competitive medical specialists

Lecture classes at universities still occupy a very important place in the educational process, they account for up to 30% of class hours. A lecture in the system of higher medical education is considered not only as a form of presenting information to a student, but also as an effective way of stimulating clinical thinking, a way of motivating a student to work independently to find and analyze information [1]. The success of the formation of the system of knowledge and competencies of the future doctor depends on the effectiveness of the lecture. Statistics show a rather low efficiency of lectures - within 3-5% [2]. Lecture efficiency means that part of the information that the student remembered and can reproduce [3]. Particularly low effectiveness of the lecture is noted among foreign students, which is completely explainable due to insufficient language proficiency [4]. However, the lecture notes along with the textbook for the student still serves as the main tool in preparation and one of the key conditions for ensuring the high efficiency of the educational process is a lecture notes, especially for foreign students [5].

The most significant drawback of lecture notes is the physiology of the relationship between the visual and auditory analyzer: while the student is recording information from the demo screen, he does not perceive the lecturer's comments [6, c.115]. Like 40-50 years ago, up to 90% of the information in a lecture is presented graphically. Only the form of presentation of information has

changed: cardboard tables were gradually replaced by pictures of slideoscopes and graphic projectors, and the latter by multimedia players. In the audience of foreign students, the problem is aggravated many times: the mechanical (unreasonable and therefore ineffective) rewriting of the contents of the slides takes several times more than that of domestic students. This significant problem is partially solved by using special listening and lecture notes for foreign students [7] and neuro-linguistic coding techniques for domestic students [8].

However, the only radical solution to the problem is to eliminate the need for notes during the lecture itself. This is possible if the student is provided with an abstract in advance. In this case, the lecturer can count on all the attention of the listener, and the effectiveness of the lecture depends entirely on the lecturer's ability to retain the interest of the audience. The issue of providing students with a ready-made abstract is also debatable. Repeatedly expressed fears that this will reduce the cognitive activity of students. In practice, these fears did not materialize. Already 10 years ago it was proposed to supply the student ahead of time with a paper lecture notes [10]. The methodology was developed, which was called the “leading independent work of students in preparation for lecture classes”, which proved its effectiveness [11]. Today, most universities have their own sites and can post methodological materials available for download, including electronic lecture notes. Among these universities is the Dnipropetrovsk Medical Academy. As soon as students had electronic lecture notes, the effectiveness of the lecture increased dramatically and continued to grow. For the better, both the behavior of students at the lecture and the attitude to the lecture per se have changed. Lectures have become fully interactive. In addition, the electronic compendium expectedly revealed indisputable and very important advantages [12]. Posting on the website and correcting the contents of abstracts requires minimal time and money compared with the publication process in the printing house. Correction of electronic notes is carried out daily if necessary. All 3rd year students pass through the department of “propaedeutics of internal medicine”, and therefore the same lecture is read many times. Verification at the next practical lesson of the share of “information” retained by students after the lecture allows us to identify its weaknesses in the lecture and an electronic summary.

It should also be borne in mind that for a modern student, a paper medium is atavism, but it is difficult to imagine it without any electronic gadget in hand. This generation prefers to use e-books, tablets or smartphones. Even when students make their very brief notes-memos during a lecture, they do them not in a notebook, but in notebooks of smartphones or tablets. Acquaintance with the notes showed that these are links to information sources, individual terms (the meaning of which must be clarified), the name of books and films (referred to by the lecturer, including fiction),

questions arising during the lecture, and completely independent thoughts. Now notes have become necessary not only for better memorization, but also for the formulation of one's thoughts, analysis of information, planning independent work. The student's notes (they can still be called an abstract) have taken on the form of a business diary of a creative specialist aimed at self-development. And this change in form was a reflection of a change in content. As we can see, only thanks to the presence of the abstract, the lecture acquired completely new properties and higher qualities.

A modern clinical lecture at a medical university has become multimedia. This made it possible to perfect all the traditional elements of a clinical lecture and opened up absolutely incredible demonstration possibilities [13]. The specificity of clinical lectures in medical universities is the need to demonstrate the clinical symptoms of the disease and the data of instrumental research methods [14].

The traditional form of this task was to demonstrate the patient, which was always associated with ethical and technical difficulties. Finding and persuading a "thematic" patient to undress in front of a hundred students is not an easy task. Moreover, the patient should be "student" - i.e. with very pronounced clinical manifestations. But, the more pronounced the clinical symptoms, the worse the patient feels and the less he has a desire to participate in such a demonstration. Even if success is achieved at this stage, it should be honestly acknowledged that only those sitting in the forefront will see and hear the patient. Radiographs, test forms, ECG films are just a few students. Using a multimedia video-audio system provided excellent visibility and audibility anywhere in the hall. Thorough preparation of demonstration clinical material (high-resolution photos and videos, clean audiograms) made it possible to present in every detail the clinical picture of any disease and involve the entire audience. A well-thought-out algorithm of alternating forms of presentation of material allowed to keep the attention of most of the audience throughout the entire lecture.But the compendium / lecture relations have mutual influence - the modern lecture, transformed in form and content, modifies the compendium. An electronic summary of a clinical lecture may contain photographs, video clips, and audio recordings, which in itself makes it specific. This specificity naturally follows from the tasks of clinical disciplines and very clearly stimulates the student to further expand his knowledge in this direction. That is why, during a multimedia lecture, many students, even having an electronic synopsis, take photos, videos and audio recordings on their smartphones for themselves. Thus, the modern compendium of the clinical lecture of a student of a medical university is an electronic multimedia compendium, supplemented during the lecture itself and supplemented in the subsequent independent work. It carries much more information in a form that is very convenient and valuable for preparing a future

doctor, it is not only a reflection of the contents of the lecture, but also lays the foundation for deepening knowledge and is organically included in the system of forming clinical thinking. Only the form of the synopsis has changed and the methods of its maintenance, the goals and objectives have remained the same, and the possibilities have expanded significantly.

Obviously, in the modern system of medical education, the success of specialist training is ensured by the rational combination of traditional classical teaching methods and innovative capabilities of electronic means of storing and transmitting information, multimedia demonstration equipment, and modern pedagogical techniques.

References:

1. Denisova V. Yu., Karlash A. E., Denisova V. V. Lecture as the main form of organization of higher education. Mezhdunarodnyj zhurnal eksperimentalnogo obrazovaniya. 2015. №4. P.434-437.[ru]
2. Polyakova M. V. The secrets of a good lecture. Obrazovanie i nauka. 2008. №5. P.118-131. [ru]
3. Semyonova I.V. On the issue of effective lectures in an educational institution. Uspehi sovremennogo estestvoznaniya. 2013. №5. P.89. [ru]
4. Zherebcova Zh. I. Problems of academic adaptation of foreign students in Russian universities and ways to solve them. Vestnik TGU. 2013. №11 (127) P.116-122. [ru]
5. Ustinova I. G., Podberezina E. I. Functional summary as a method of activating students' independent work in the modern concept of higher education. Universum: психология и образование. 2015. №5 (15) P.4-10. [ru]
6. Gippenrejter Yu.B. Attention Psychology. 2008 – 704 p. [ru]
7. Pashkova M.N. Problems of teaching foreign students of technical universities of Russia listening and taking notes of lectures on the profile of the future specialty. Teoriya i praktika obshestvennogo razvitiya. 2014. №7 P.58-61. [ru]
8. Kuzmin M. Yu., Kozlova N. M. The use of neuro-linguistic programming techniques in the preparation of lectures for students of medical universities Sib. med. zhurn. 2010. №7. P.56-57. [ru]
9. Policinskaya E. V., Policinskij E. V. To the organization of advanced independent work of students in preparation for lecture classes. MNKO . 2011. №1. P.236-239. [ru]
10. Vasilev V. S. Multimedia support of lectures at the clinical department. Zhurnal GrGMU . 2005. №3 (11). P.254. [ru]
11. Evstigneeva N. A. Electronic lecture notes as a means of the pedagogical process. Mezhdunarodnyj zhurnal prikladnyh i fundamentalnyh issledovanij. 2013. №11-2. P.163-165. [ru]
12. Yanovskij L. M., Gorohov V. G., Zybin V. A. An innovative approach to the problem of lecture notes. Byulleten VSNC SO RAMN. 2005. №1. P.232-234. [ru]
13. Ruhlova S. A., Puminov V. V., Sannikov A. G. The place of electronic manuals in the teaching of clinical discipline. Vrach i informacionnye tehnologii. 2011. №3. P.62-67. [ru]
14. Shkurupij D. A. Multimedia technologies in the educational process of medical HEI: opportunities and problems of use. Visnik problem biologiyi i medicini. 2014. №4. P.44-47. [укр]
15. Kalyagin A. N. Clinical lecture today: traditions, innovations, prospects. Sib. med. zhurn. 2010. №7. P.51-54.