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SOME FEATURES OF DISTANCE LEARNING OF MEDICAL ENGLISH-SPEAKING STUDENTS**ДЕЯКІ ОСОБЛИВОСТІ ДИСТАНЦІЙНОГО НАВЧАННЯ АНГЛОМОВНИХ СТУДЕНТІВ-МЕДИКІВ****Tolstikova O.O. / Толстікова О.О.***MD, PhD in medicine, c.med.s., associate prof. / к.мед.н., доцент**Dnipro State Medical University, Dnipro city, Ukraine**Department of Pediatrics 3 and Neonatology**Дніпровський державний медичний університет, м. Дніпро, Україна**Кафедра педіатрії 3 та неонатології**ORCID 0000-0002-4952-1080***Aharkov S.F.² / Агарков С.Ф.***MD, DM in medicine, doct.med.s., prof. / д.мед.н., професор**Dnipro Medical Institute of traditional and non-traditional medicine, Dnipro city, Ukraine**Department of Internal medicine with a course of preventive disciplines**Дніпровський медичний інститут традиційної і нетрадиційної медицини, м. Дніпро, Україна**Кафедра внутрішньої медицини з курсом профілактичних дисциплін**ORCID 0000-0002-4952-1080*

Abstract. *The education system all over the world have changed because of Covid 2019. It challenged to online the model of teaching way. Distance learning of students is the most important way of conducting of the educational process of medical students in the context of the coronavirus pandemic. The article describes some features of distance learning of medical English-speaking students.*

Key words: *Distance learning, medical students, English-speaking students*

Introduction

In modern conditions, the main task of the Ukrainian educational system is to ensure adequate quality education based on its fundamentality and compliance the needs of the individual and the state. Society needs specialists of a new type with versatile knowledge, high level of professional competence, ability adapt to new socio-economic conditions, and the ability to navigate in the modern information space.

The listed qualities allow a specialist to be competitive in modern realities [1]. At the same time, the traditional system of training specialists, characterized by strict regulation, inviolability of educational plans and programs, the minimalism of informatization cannot satisfy at this stage the needs of education [6].

Informatization of education makes new demands on professional qualities and level of training of specialists and, first of all, university teachers, to methodological and organizational aspects of the use in training of information and communication technologies [1, 6]. Modernization of medical education in Ukraine as a whole aim to ensure the effectiveness of continuous vocational education and includes improvement basic educational program and educational technologies, professional development of the teaching staff, improving the control of students' knowledge, using computer technologies in the educational process, information openness to all participants in the educational process.



The most important component of the modernization of higher medical education is the improvement of educational technologies [5]. The main directions of improvement of educational process at the stage of undergraduate and postgraduate training of a doctor are to increase the role of independent work in mastering theoretical knowledge, the use of individually oriented software educational complexes, the use of active (interactive) teaching methods for large and small groups, mastering practical skills in the mentoring-tutoring system, the use of simulation systems [2].

Of the presented areas of modernization, there is great interest present interactive technologies and teaching methods. The mentioned technologies contribute to the activation of individual mental student processes, provide a better understanding of information learners and, at the same time, lead to two-way communication with exchange of information between students and the teacher [8]. Basic interactive technologies and teaching methods, used in higher medical education are: work in small groups, lectures with a problem statement, seminars in the form discussions or debates, conferences, case study method, project method, business games, etc. [1].

The goals and specifics of training a future specialist, especially with taking into account the functional and applied nature of the use of funds information and communication technologies, involves the creation a specific concept of computerization of this process, the development of it the basis of the system of subject and methodological preparation of the future a specialist who is adequate to the modern requirements of society and prospects for the development of information and computer technologies (ICT) [2, 3].

The environment in which medical students study today is very different from what it was in early 2019, when there was no pandemic of coronavirus infection. In this context, the Internet has not been as dominant a tool in medical education as it is today [1, 5].

E-learning platforms are now increasingly used by medical schools around the world and include adaptive tutorials, audiovisual videos and virtual models. These educational media have a number of clear advantages over traditional didactic learning models, including the ability to update materials in a timely manner to ensure that students are provided with the latest science-based content.

A number of researchers on this subject have demonstrated that e-learning is as effective as traditional didactics and can be used to stimulate self-directed learning [1, 2, 4]. It encourages medical students to strengthen their control over their studies by providing flexibility in the content and pace of learning. In such models, teachers can objectively assess competencies through online assessments, which allows students to receive personal feedback for self-improvement.

The aim. To describe some features of distance learning of medical English speaking students.

The education system all over the world have changed because of Covid 2019. It influenced the educators to an online model of teaching way [1]. Distance learning of students is the most important way of conducting of the educational process of medical students in the context of the coronavirus pandemic (Covid 19) [2, 5].



A lot of universities that were earlier reluctant to change their traditional pedagogical approach had no other way but to shift entirely to online teaching–learning [2, 3].

Undoubtedly, mastering of modern competencies by future medical doctors is a huge task, because the lack of the inspection of patients and full-time training in hospital and in outpatient.

Moreover, future doctors can have a lot of problems from one side with mastering the skills and communicating abilities with patients. From another side they usually can be faced with the lack of competence of assessment of the identified symptoms and syndromes of the disease, as well as diagnostic approaches and patient management algorithms [3].

Modern innovations in the direction of internationalization of medical education in Dnipro State Medical University began in 2000 with the implementation of the Bologna system of education and included significant changes in the goals, content, methods and technologies, forms of organization of the educational and cognitive process, the control system and assessment of the level of education. The educational process needs a methodological support, in curricula and programs for the purpose of integration into the international scientific and educational community.

The experience of introduced discipline of "pediatrics" in Dnipro State Medical University and "internal diseases" in Dnipro Medical Institution of Traditional and Nontraditional Medicine for English-speaking foreign medical students proves that this is a modern and effective form of internationalization of education, which improves the knowledge and skills of foreign students.

Ensuring the educational process required a careful restructuring of the methodological support of education process to the opportunities and requests of students studying in English. Methodical support for everyone practical classes for international students include materials in English that are created by staff departments: guidelines for students and teachers, thematic structured situational tasks (according to the number students in a group) for extracurricular homework, a set of thematic test tasks from the base of the license exam "STEP-2" (10 options for 20 tests per lesson) for classroom control of knowledge [4].

The system of extracurricular work in the form of daily written work became an effective development of the department home solution of thematic situational problems with substantiation of the diagnosis, purpose of the examination algorithm, treatment and rehabilitation. For convenience, all situational tasks can be given to each student at the beginning of the module. This gives students the opportunity to independently plan their extracurricular work, as well as to get acquainted with the tasks of the whole group. Daily solution of test tasks from the bank of the license exam "STEP-2" (on the topic of the lesson 50 tests in each case) followed by a discussion of mistakes, of course, improves the quality of training to the license exam [2].

Computer technologies in the form of videos and multimedia presentations are widely used in education process of foreign students. That provides intensification of the educational process and a comfortable learning environment.



To some extent, to improve the information component of English-speaking students allows the website, where in addition to educational and methodological information, collected literature in English, various sources, lecture presentations, textbooks created by employees of the department.

Computer on-line testing of students on test task have being providing daily. Electronic testing has a positive and motivating role, allows students to effectively disassemble mistakes. Students positively evaluate the introduction of distance training on the tests and show great interest in learning with the use of computer technology.

Another method that have proven students in the process of full-time education, of course, with amendments to the conditions of distance education, seems especially relevant. As far as we are concern among the aforementioned techniques, one should single out a variation of the brainstorming method. It called "critical attack" method [8].

The essential of this method is the critical orientation of the discussion of an urgent issue, for example, the diagnosis of a certain pathological process (disease) [8].

We are describing how to implement this method. First of all, it consists of some stages. The first stage starts from that the teacher tells a brief extract from the medical history. Several group members have to solve the problem. They give their interpretation of the diagnostic search. Before that they conduct a differential diagnosis of the leading syndrome of the disease. The other half of the students demonstrate their ability to be experts who analyze the correctness and completeness of the problem solution or offer their own version of the development of events [8]. Solving the proposed problem, they should demonstrate detailed argumentation. Furthermore, each expert should familiarize himself with the opinions of his colleagues and find and argue in the proposed solutions the maximum number of errors and shortcomings.

On the second stage, experts collect together and take turns discussing all the solutions put forward. The aim of each expert is to describe and defend the solution, the task of the opponents is to "smash it to smithereens." [8]. As a result of the discussion, the experts choose the solution that causes the least controversy and is the most reasonable. It is important to note that we have conducted online classes on platforms such as Google Meet, Zoom, Microsoft Teams. This allows for a stable and fast internet connection available to every student. Other online platforms can be used too.

Several teaching strategies (lectures, discussions, exercises, case studies, brainstorming, debates, experiential learning, games, etc.) can be used on the Internet to facilitate effective and efficient teaching and learning practices [2, 8].

In pandemic situations, teaching and learning should be progressive and interesting. It can lead to reduce stress and anxiety in students. Of course, teachers and students need to be provided with proper technique and learning support [1,5,6].

It should be noted that online teaching methods support and facilitate teaching and learning activities, especially during disasters and pandemics such as Covid-19 [5].



In order to study the issue of e-learning, a study was conducted from the point of view of English-speaking students of the 6th year of education of Dnipro State Medical University and among the students of Dnipro Medical Institution of Traditional and Nontraditional Medicine, which was based on a survey of their attitudes to distance learning in the Covid-19 pandemic.

The results of the survey allowed us to draw the following conclusions:

1. The vast majority (90%) of medical students find e-learning enjoyable and effective, but, interestingly, 48% do not assume that it replaces traditional didactic methods.

2. 60% of respondents believe that e-learning should be accompanied with classroom methods under the guidance of a teacher, i.e. a mixed learning process is needed.

3. Research has shown that in a blended learning environment, 76% of medical students are consistently more satisfied than in traditional face-to-face and lecture settings, but this satisfaction does not correlate with test scores, where there is often no significant difference between the two pedagogical approaches.

4. More than two-thirds of respondents said that new teaching methods are always valued and can provide the best involvement compared to traditional didactics.

E-learning undoubtedly affects the environment in which future medical students study. The gradual transition to the dominant role of e-learning can be seen as a catalyst for the application of distance learning theory, which will lead to more and more medical teachers taking on the role of facilitators and experts in assessing the competencies of medical students.

Thus, medical educators should continue to make more intensive use of the benefits of e-learning to offer innovative approaches to teaching medical students not only in the context of quarantine, but also after returning to the full-time learning process.

A competent specialist in modern conditions must have not only high professional knowledge, but also skills of effective communication and search activities in the field technical resources "man-computer".

Informational computer competence is the ability specialist to use information and communication technology for access to information, its identification, organization, processing, evaluation, as well as its creation, production and transmission - distribution [6].

The process of becoming information and communication competence specialists implies the development of motivation, needs and interest to the formation of skills in the development of technical, software tools information. Influenced by the objective process of modern development science and practice in the context of the rapid expansion of information communication technologies are all subject areas human activities [7].

In these conditions, the teaching of medical disciplines experiences significant positive impact from ICT. Currently we can talk about one of the directions for improving the training system specialists assumes a competence-based approach to the formation curricula and programs. The second is related to the revision of the



content, goals, skills, forms of training and self-education. Third direction involves changing the structure of curricula through the provision of choice of priorities as a means of ordering a large number of individual training actions with which the trainees are constantly collide in the educational process.

Conclusion

Thus, at the present stage, the information component becomes a leading component of technological preparation graduates of higher medical educational institutions. Based on achievements of modern science, its use is necessary condition for the modernization of higher medical education in Ukraine.

The presented basic provisions of the organization of the educational process are aimed at solving the main modern problem of continuous higher medical education, namely, - the formation competent specialist. They aim at a new result vocational education in modern conditions - competence combining knowledge and skills with ways implementation of educational and professional activities.

Further research is needed to establish the role of blended (distance-based) learning in medical education, especially in cases of force majeure, such as the Covid-19 pandemic.

References:

1. Alston, J. M. (2020). What impact has the coronavirus had on higher education? Retrieved from: <https://inomics.com/insight/what-impact-has-the-coronavirus-had-on-higher-education-1447925>.

2. Ботьбот Ю.К., Толстікова О.О., Ковтуненко Р.В. Викладання педіатрії англomовним студентам 6 курсу медичної академії. Матеріали ІІ Міжнародної наукової конференції Освіта і наука у мінливому світі: проблеми та перспективи розвитку, 27-28 березня 2020 р. Дніпро. Частина І, С. 46-48.

3. Kazamias A.M. Globalization and University Education in Late Modernity // XIX CESE Conference. Abstracts of presentation. Bologna: Italy-uni, 2000. – 112 p.

4. Osuch W. The influence of Bologna Declaration principles on the process of training // Quality of Higher Education and present-day challenges. Siedlce: 2011. - P. 59-71.

5. Shivangi Dhavan (2020) Online Learning: A Panacea in the Time of COVID-19 Crisis Journal of Educational Technology System, Volume: 49 issue: 1, page(s): 5-22.

6. Student and Resident Letters to the Editor: Curriculum The Role of E-Learning in Medical Education Huynh, Roy Author Information Academic Medicine: April 2017 - Volume 92 - Issue 4 - p 430 doi: 10.1097/ACM.0000000000001596.

7. Толстікова О.О., Шевченко Т.М., Агарков С.Ф. До питання про деякі відмінності в термінах, що застосовуються в медичній освіті України і англomовних країн /Теорія та практика сучасної науки та освіти. Матеріали Міжнародної наукової конференції. 29-30 листопада 2019 р., м. Дніпро. Частина ІІ. / Наук. ред. О.Ю. Висоцький. – Дніпро: СПД «Охотнік», 2019. – С. 35-36.

8. Tolstikova O., Taran O. / The use of “Critical attack method” in distance learning of graduate course students of medical academy / Proceedings of the II International Education Forum «Best Educational Practices: Ukraine, Europe,



World» January 24, 2021 *To the International Day of Education* Top Topic BEP-2021: «Development of distance education and digital technologies in education» C.211-214. <http://bep.s-time.org/>

Анотація. Система освіти в усьому світі змінилася через Covid 2019. Вона кинула виклик онлайн-моделі навчання. Дистанційне навчання студентів є найважливішим способом ведення навчального процесу студентів-медиків в умовах пандемії коронавірусу. У статті описано деякі особливості дистанційного навчання англомовних студентів-медиків.

Ключові слова: дистанційне навчання, студенти-медики, англомовні студенти.