

# Modern Educational Technologies of Forming the Professional Competencies of Medical Students

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**Abstract:** Today, the high demands placed on the level of training of specialists in the field of education emphasize the formation of professional competencies in students. In order to check the level of development of practical skills, it is suggested to use new educational technologies in the educational process. This article presents materials on the use of innovative teaching methods such as case-study method, role-playing and Web-quest for students of medical universities, and several stages of implementing the case method are highlighted.

**Key points:** professional competence, applied technology, web quest, pediatrics, medical education component.

## INTRODUCTION

Clinical education is a special field that provides not only the transfer of knowledge and medical experience, but also, most importantly, practical skills. As a possible innovative educational technology, new technologies can be used in education, for example: the successfully proven "case method" - checking the level of development of practical skills, "Business game" and "Standardized patient" - giving students the opportunity, development of the psychological basis of "doctor-patient" interaction and, of course, in medical science, practice and education, virtual technologies (phantoms, 'training on mannequins and stimulus stimuli).

Thanks to the use of this method of learning practical skills in training: - it will be possible to stimulate clinical situations that are as close as possible to real situations, but safe for patients;

- professional action can be repeated many times to develop skills and eliminate mistakes;
- conditions are created for the development and maintenance of the skills of professional actions in rare cases, which are necessary for every doctor.

According to the established competence, the student should know the following:

1. Principles and methods of emergency first aid in children and adolescents.
2. Clinical and pharmacological properties of the main drugs and rational selection of specific drugs in the treatment of the main pathological syndromes and emergency situations of diseases in sick children and adolescents.

The case-study method is the most widely used in the teaching of economics and business, and the use of this modern teaching method is innovative in medical schools, and the doctor's analytical thinking, speed and accuracy of decision-making, helps to form important qualities such as the ability to defend one's opinion. The CASE STUDY method develops the following skills:

1. Analytical skills: the ability to classify, distinguish, analyze important and unimportant information, clear and logical thinking.
2. Practical skills: the case helps to form the skills of practical application of theory, disease diagnosis and treatment algorithm.

3. Creative skills: creating alternative solutions that cannot be found logically.
4. Communication skills: the ability to lead a discussion, convince others, cooperate in groups, defend one's point of view, convince opponents, write a short, convincing report.
5. Social skills: assessment of people's behavior, listening, support in discussion or opposing opinion, self-control, etc.
6. Self-analysis: Disagreement in discussion helps to know and analyze the opinions of others and one's own. Developing moral and ethical problems require the development of social skills to solve them".

The main goal of the case-based teaching technology is built in accordance with the requirements of the State Education Standards, which includes expanding the boundaries of the student's professional competence, creating a motivational and professional orientation, and developing the readiness of the future specialist for innovative activities.

In the case method, "brainstorming" is used when the group faces real difficulties in understanding the situation, it is presented as a means of increasing the activity of students and is not considered as a means of finding new solutions, although such a role is not an exception, but as a type of cognitive activity.

At the same time, the case assignments are divided into two parts: the first part is given to students for independent preparation at home (theoretical data collection and clinical situation), and the second part is in the form of work. A continuation of the clinical task, given to students in the classroom.

The second part of the problem contains data obtained from additional instrumental or laboratory research methods or a continuation of the clinical situation. This approach allows for the development of clinical thinking. When working with the 1st part of the work, students learn to make decisions, make a diagnosis, focusing on a limited amount of information, and when familiarizing with the 2nd part of the work, they can get approval or rejection of the initial decision, which gives them pre-planned plans allows for adjustment (flexibility approach - what is important in a changing situation in a critically ill patient).

Diagnostic tools of case technology - test tasks created taking into account the representativeness, variability and consistency of the content are used to monitor the achievement of the set goal.

In addition, the teacher uses other control methods: oral inquiry, checking the presence and discussion of cluster diagrams, controlling the content of cluster diagrams created by students.

Of course, this technology is not without flaws and problems. And this is primarily due to the difficulty of creating work tasks themselves, "filling" the work. Students are more interested in specific clinical situations, "cases taken from life", based on real factual materials and supported by data from laboratory and instrumental research methods.

While discussing the effectiveness of the implemented case technology, we suggested that it can contribute to the formation of active professional activity of students, the formation of clinical thinking, as well as stimulate their intellectual potential and motivation to study the science of hospital pediatrics. All these can be considered as the leading pedagogical conditions for the successful adaptation of students in the continuous professional education system.

The use of technologies creates conditions for students to acquire basic professional competences, spiritual and personal development. All this ultimately serves to increase the effectiveness of education and the quality of education.

## **CONCLUSION**

Modern educational technologies are of great importance in the formation of professional competencies of medical students. In addition to traditional teaching methods, the use of interactive and innovative technologies is required to improve the skills of specialists in the medical field.

Among these technologies, such tools as simulations, virtual and augmented reality, online courses, multimedia programs and telemedicine occupy a special place.

Modern technologies provide students with the opportunity to demonstrate clinical practices in real time, study and manage complex medical processes. For example, with the help of virtual laboratories and simulators, students can reproduce various medical cases, practice even in situations where physical resources are limited. Such technologies also help to get acquainted with innovations and best practices in the field of medicine, develop their professional skills.

In addition, modern educational technologies allow, using interactive teaching methods, to develop cooperation between students, stimulate independent learning and develop critical thinking on medical issues. All this, in turn, serves to increase the professional competence of the student and train high-quality medical specialists.

In general, the widespread use of modern educational technologies in medicine not only helps to effectively organize the educational process, but also greatly contributes to increasing the global competitiveness of medical specialists.

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