

USING THE BLENDED LEARNING METHOD IN TEACHING BIOETHICS

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Abstract

It is beneficial for every student today to consciously choose the learning process that best suits their specific circumstances and abilities. This approach naturally prevents a haphazard attitude towards acquiring knowledge, skills, and competencies. In the current era of advanced information and communication technologies, relying solely on e-learning, traditional education, or cutting-edge educational technologies in organizing lessons does not yield optimal results. This is because each educational method has its own strengths and weaknesses. Therefore, the combined application of these educational approaches is currently producing positive outcomes in the field of education, and this approach is referred to as blended learning.

Keywords: Medical statistics, educational technologies

The total classroom hours for the subject of Medical Statistics is 90 hours, with an additional 90 hours allocated for independent study. In total, 6 credits have been assigned, which amounts to 180 hours.

Professors and teachers conduct classes for students using new pedagogical technologies during the educational process. However, based on current requirements, we can observe that implementing a blended learning system is proving to be quite effective.

Blended Learning is an educational concept where learning activities are organized both in the classroom and online. In this type of educational approach, learners can receive face-to-face instruction from the teacher in the classroom and independently study online outside the classroom through distance learning systems. This organization of learning allows for control over the time, pace, method, and location of studying the material. Blended learning enables the integration of traditional methodologies with current technologies.

Looking at the history of blended learning, this term was first used in 1980 when organizing professional development courses for Boeing company employees. These professional development courses were organized through listening to compact discs and watching video clips. Later, in 2005, the term became even more popular after the publication of the book "The Handbook of Blended Learning: Global Perspectives, Local Designs" by Curtis Bonk and Charles Graham.

At the request of the US Federal Department of Education, Stanford University specialists analyzed over a thousand empirical studies comparing traditional, online, and blended learning. According to the analysis results, the authors noted that from 1996 to 2008, online education did not offer significant advantages over traditional education. However, it was found that blended learning technology demonstrated considerably higher effectiveness and improved quality compared to both online and traditional education. This study significantly strengthened the position of blended learning and provided impetus for its further development.

Declan Byrne says the following about "blended learning" - "this educational approach aims to effectively utilize rich pedagogical experience." Such an approach can be based on the use of various methodologies in presenting information, incorporating information technologies in organizing education and the learning process, and arranging traditional activities both individually and in groups. This diverse approach prevents student fatigue and strengthens their motivation to study. The main challenge is to ensure the balance between the chosen methodologies and to achieve high efficiency while keeping costs low.

Today, blended learning is considered a combination of elements from traditional in-person education and distance learning, which allows for the integration of traditional methodologies and new technologies. In this system, the teacher remains at the center of education while making extensive and effective use of internet capabilities.

In blended learning, one can utilize various technologies from traditional face-to-face education, that is, classroom learning (Face-to-Face learning), distance learning, and online learning via the internet.

Currently, six models of blended learning have been established in foreign practice.

1. "Face to Face Driver" model. The significant part of the curriculum is studied directly with the teacher's assistance. E-learning is used as a supplement to the main program, including working with electronic resources on computers during the lesson.
2. "Rotation" "Flipped learning" model. Study time is divided between individual e-learning and classroom learning with the teacher. In this model, theoretical materials are studied independently and remotely, while the material is reinforced in the classroom through discussions in cooperation with the teacher.
3. "Flex" model. A large part of the curriculum is mastered through e-learning. The teacher monitors each student remotely. The teacher organizes consultations on complex concepts within the topic in small groups or individually.
4. "Online Lab" model. The curriculum is typically organized in classrooms equipped with computer technology in accordance with e-learning requirements. Online learning is conducted under the teacher's supervision.
5. "Self-blender" model. This model is considered traditional for American higher education institutions. Students independently choose additional courses to complement their basic education.
6. "Online Driver" model. The main part of the curriculum is mastered using electronic resources in the information and educational environment.

We will examine the application of the "Flipped learning" model of blended learning for organizing lecture classes.

Flipped learning, or inverted education, is a form of blended learning - an educational concept that transforms the passive, monotonous activities of learners into a new format. In this approach, the student watches a video lecture as homework through the network and independently masters the theoretical material. In the classroom, they then perform practical tasks in collaboration with the teacher.

Organizing lessons using the Flipped learning model. In this model, the teacher prepares several video lectures and uploads them to a network or system. Students watch these teacher-prepared video lectures at home and study the topic. This allows students to view the video lectures at their own pace and revisit them as needed. If internet access is not available at home, educational institutions provide this opportunity. During class time, students discuss questions and ideas that arose from the topic with the teacher. They also complete various assessment tasks to reinforce the acquired knowledge. Below is a comparison of student activities in the traditional form of teaching and the Flipped learning model.

As we all know, in the education systems of developed countries around the world, six levels of teaching and learning - known as Bloom's taxonomy - are applied. In the Flipped learning model, students master the knowledge and comprehension categories of Bloom's taxonomy at home, while in the classroom, they focus on the application, analysis, synthesis, and evaluation categories.

Taking the above into account, blended learning technology in teaching medical statistics may provide the following opportunities:

1. *Flexibility of the educational process.* This can accommodate any number of teachers and students. Teachers can conduct lessons from different locations. Students can access electronic textbooks or online education system materials at any time and from any place.
2. *Transparency in teaching.* Conducting exams on computers eliminates certain shortcomings and ensures transparency. Furthermore, communication services enable students and teachers to maintain constant contact, which helps them to better understand one another.
3. *Individual approach.* Teachers can adjust the volume of educational materials based on students' personal characteristics. The combination of different models allows each student to fully develop in their area of interest.
4. *Developing independent study skills.* The student learns to manage their time effectively, to be organized and disciplined. Without these skills, success in blended learning cannot be achieved.
5. *Increasing motivation.* Many people enjoy gadgets and various services. In the 21st century, people not only want to learn, but also desire lessons to be organized in an interactive and interesting way. They willingly participate in webinars, engage in discussions on forums, and master various programs.

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