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Title: **ADVANTAGES OF FLIPPED LEARNING TECHNOLOGY IN EFFECTIVE ORGANIZATION OF EDUCATION OF STUDENTS OF DIGITAL ECONOMICS**

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Advantages of Flipped Learning Technology in Effective Organization of Education of Students of Digital Economics

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Abstract: in this article considered the necessity and importance of using the flipped learning approach in effective teaching the course "Programming in Economics" to students of digital economics. In the traditional course organization, a low level of assimilation by students due to the time constraints and the large amount of material for sufficient delivery of teaching materials to students during the class, lack of basic knowledge of students for independent extracurricular activities will lead to need to improve of the education system in this area of education. For this reason, in this paper the advantages of applying the flipped learning approach has been studied.

Keywords: teaching, education, flipped learning, blended learning, applying the new approaches in high education system.

Introduction

The concept of the digital economy was first defined in 1995 by Nicholas Negroponte, an American scientist at the University of Massachusetts. The scientist spoke about the changes that can occur during the transition from the old economy to the new, following the intensive development of information and communication technologies.

The digital economy is a business activity, in which the main factor in production and services is data in the form of numbers, to implement more efficient solutions than the previous system in the various types of production, services, technologies, devices, storage, delivery of products through the processing of large amounts of information and the analysis of the results of this processing. In other words, the digital economy is an activity related to the development of digital computer technologies in the provision of online services,

electronic payments, e-commerce, crowdfunding and other types of industries.

The training of qualified personnel in the field of the digital economy is important for the development of the digital economy. As we can see, the activities of such specialists are entirely related to digital technologies.

In addition to economics, students specializing in the digital economy also study subjects such as information technology, programming and data mining courses which related to the digitization of economic processes. Deep acquisition of knowledge of such digital sciences creates some difficulties to students specializing in this field. Effective organization of labor activity with the help of digital technologies requires deep mastery of technologies for automation, digitization, programming of economic processes. In the training of leading specialists in the field of digital economy, it is important task to organize the educational process using modern methods

of teaching programming disciplines, get the most effective results from classes, increase interest in classes, increase student activity and develop programming skills. Naturally, part of the effect of the result is lost in any training. The most effective learning is self-directed learning. Obviously that the Chinese philosopher Confucius was right when he said: "I Hear and I Forget, I See and I Remember, I Do and I Understand." Therefore, the curriculum pays special attention to independent learning.

The need to use flipped learning approach in education

In addition to independent learning, it is advisable to use the flipped learning approach as opposed to the traditional teaching method in order to make the most effective use of the class time.

Flipped learning - it is a method of increasing the level and effectiveness of student learning in the classroom by providing students with study materials in advance for independent study at home or outside of class time. In this case, when organizing the educational process, educational materials that should be provided to students directly during the class are distributed to students in advance, they are usually presented online in the form of an electronic document, video file, or similar, and are required to read and study the material independently before class. During the class, students share their knowledge and information, and mistakes are corrected and supplemented by the teacher. During the class, examples and problems related to the topic, exercises, problem solving, project implementation will be considered, and thus tries to use the study time as efficiently as possible. This method helps to achieve great results in the effective organization of teaching, stimulates students to think at a high level. During the course, students

work to develop their professional competencies through teamwork and discussions.

Today, flipped learning approach is used in many higher education institutions to teach science and language courses.

Work [1] presents an analysis of the effectiveness and benefits of flipped learning, which involves the use of flipped learning approach in Chinese universities in teaching the course "Electronic CAD technologies" based on the characteristics of the subject. This paper discusses the need for an flipped learning approach, as students often have to practice solving problems on a given topic on a computer.

Research work [2] describes the main problems in STEAM education and the need to solve it using the method of flipped learning. The word Steam is derived from the words Science, Technology, Engineering, Arts, and Mathematics, and is a new educational system which hopes to prepare creative and talented individuals for the unpredictable future. One of the problems with Steam education is that teachers report that they do not have enough time and learning materials to achieve the best classroom results. In this case, the author of the work [2] suggested that in order to solve this problem, it would be better to organize Steam education with flipped learning.

[3] analyzed the importance and role of flipped learning in English teaching, especially during the spread of COVID 19 virus. According to the author, it is necessary to use this method of teaching not only in language courses, but also in the organization of effective teaching of all subjects.

The literature [4] presents a comparative analysis of the learning outcomes of 2nd year Chinese students using the traditional method and the method of flipped learning. According to [4] research, in flipped learning method, although the planned topics were reduced by

half, the result was positive. Research has shown that the use of Flipped learning can increase the effectiveness of teaching.

[5] research is devoted a professional development (PD) program for academics at an Australian university. This PD program considers designing the model good blended curriculum design and effective use of contemporary learning technologies. The study noted that this professional development program supported modeling a shift from “sage on the stage” to “guide on the side,” through use of flipped and blended learning approaches by the academic developer. Practical research has shown that the teacher is convinced of these methods and the level of student satisfaction has increased.

An analysis of the literature shows that the use of flipped learning leads to positive results. However, in some cases, the use of this new method has met with some resistance. There are also conflicting opinions about the results of the organization of teaching in this way. However, whether or not to use the flipped learning method must be decided by the teacher depending on the characteristics of the subject and the level and circumstances of the students.

The importance of using flipped learning approach in teaching the course "Programming in Economics" to students of digital economics

To organize lectures and practical classes with the use of flipped learning approach in the course of "Programming in Economics" for students of digital economics, it is recommended to perform the following steps:

- planning to which topics will be applied the flipped learning approach; it should take into account the potential and ability of students in the choice of topics and should not be too hard for independent study before the class. Not all subjects can be taught using the

flipped learning method and may not produce good results;

- preparation of video material on the planned topic; all keywords and key concepts related to the topic should be expressed in a simple and understandable way for students to learn, based on the purpose of the class and the expected outcome;

- share video material with students; it is possible to use the educational platform available in the educational institution or the modern messengers;

- dividing students into small groups, setting a big task and organizing the team projects;

- ensuring the preparation of student reports on projects during classes; this allows students to share their experiences and exchange ideas, the ability to speak competently and correctly express their opinions in the audience will also develop. In the class, the teacher teaches students to guide, correct mistakes and shortcomings, and give the necessary advice, practice, analyze, and draw the right conclusions.

What does flipped learning give a teacher?

- the teacher can easily teach and explain the material, as students are already familiar with the material;

- the time allotted for the lesson will be enough to achieve the goal;

- increased student activity in the classroom;

- in addition to the theoretical knowledge in the classroom, there is an opportunity to develop practical skills;

- it is not difficult to educate students who are unable to attend classes.

What does flipped learning give students?

- less “sitting and listening” and more “learning and practicing” in the classroom;

- develops the ability to study independently;

- moves from the principle of group learning to the principle of individual learning;
- maximum use of the teacher during the lesson;
- ensures that students fully master the course material;

Achieved result:

- get acquainted with the material before the lesson, understand and remember;
- analyzes and learns to apply during the lesson;
- evaluates, draws conclusions and takes a creative approach after class.

The question arises as to whether first-year students of digital economics are ready to organize lectures in the course "Programming in Economics" with the use of flipped learning approach. Definitely, ready. Because,

- there are sufficient conditions for students to get acquainted with video materials outside the classroom, both at the institute and at home;
- students have sufficient basic knowledge to organize the lesson with the use of flipped learning approach;

students have a mathematical basis on materials which provided for students to master the course independently.

Conclusion

It is important to note that without radically reforming the education system of the next generation, it is difficult to imagine the training of modern competitive, open-minded, creative and critical analyzing personnel. In many foreign countries, including the United States, European and Eastern universities, flipped learning and blended learning methods have been successfully used in the effective organization of the teaching of special subjects. Modern professors should pay special attention to applying of these technologies in their practice, depending on characteristics of the subject and classes. In particular, the use of such

methods in teaching digital economy students in the field of programming and programming to solve economic problems using a modern programming language can become the basis for achieving positive results and, thus, increasing the professional competence of students.

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