

# THE EFFECTIVENESS OF FLIPPED CLASSROOM IN HIGHER EDUCATION: OPPORTUNITIES AND PROBLEMS OF IMPLEMENTATION

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## ABSTRACT:

**This article presents the main characteristics of flipped learning, analyzes various possibilities of its application in the conditions of Uzbekistan, as well as its advantages and disadvantages.**

**KEYWORDS:** Teacher, student, learning, flipped classroom, inverted classroom, flipped learning, quality assurance, critical thinking, creativity, higher education.

## INTRODUCTION:

Modern society is characterized by the virtualization of life and social communications. Information and communication technologies (ICT) are actively used in economics, management, medicine, culture, they have penetrated deeply into our daily life and have already changed our behavior, ways of communication, our approaches to work, rest, our way of life. The inevitable introduction of digital technologies into the educational process requires a revision of the existing pedagogical paradigm, based on the narrative nature of knowledge transfer. Given the impressive number of information available to students through the Internet, it is obvious that the teacher is no longer the only source of knowledge. To improve the quality of education, it is necessary to introduce new approaches to teaching, more adapted to the needs of today's students.

In addition, innovation is a key factor in the development of modern society. To meet the challenges of the future, it is necessary to prepare students for professions that do not

yet exist, for technologies that have not yet been invented, for solving problems that cannot imagine. In the context of constant economic and social changes, it is very important to teach students to study independently, update their knowledge throughout their lives, and constantly improve their qualifications. In this regard, the teacher is faced with the difficult task of choosing the methods and forms of organizing educational activities, the implementation of which in the specific conditions of an educational institution will give a high level of quality in training students.

Recently, the so-called hybrid or blended learning has become widespread abroad, which consists in the active use of elements of distance learning, electronic educational resources, collaborative platforms, digital technologies and the Internet. One of the latest trends in foreign pedagogy in developed countries, in particular in France, is the "inverted classroom" technology, which is one of the forms of blended learning. The flipped classroom is a new approach to teaching organization in which classroom oriented learning, this method is more flexible and provides greater involvement of students in the educational process, allows you to form a dynamic and creative environment in which students learn to think critically and work together to work out the assigned tasks [1, p.38].

The term "flipped classroom" is a literal translation of the English term "flipped classroom" or "inverted classroom". A distinctive feature of the inverted class is the

complete or partial transfer of the process of transferring knowledge to independent study. At the same time, the freed classroom time is used for interactive activities that develop critical thinking and creativity. The English definition of an upside-down classroom ("reading at home, and homework in the classroom"), according to many French educators, is too simplistic. M. Lebrun, one of the authors of the book "Inverted Pedagogy", writes that inverted teaching is not essentially a new method, but rather a new way of thinking, the purpose of which is to optimize classroom work with students through extracurricular activities aimed at in-depth study of the subject. [2]. At the same time, the teacher's task is to motivate students to independently search for knowledge outside the classroom, teach not only to search for information, but also to check its reliability, analyze, critically reflect, and then in the classroom to achieve an active intellectual reaction to the educational material, which is a prerequisite for mastering new knowledge.

E. Mazur, a physics teacher at Harvard University in the USA, gave the students material of lectures in advance so that they would come to the class prepared, at least to become familiar with new concepts and terminology. At the beginning of the lesson, Mazur conducted a small survey, the results of which were a signal for the teacher, how much the teaching material was mastered, what issues should be paid special attention, then in mini-groups an in-depth study of the material and problem solving took place. Unlike traditional physics lectures, Mazur did not show how to solve similar problems, encouraging students to think about and apply general principles and theories in different situations. Interim and final tests, conducted by Mazur, demonstrated a higher level of mastering the educational material in

comparison with the traditional teaching method [3].

The term "flipped classroom" was first used in 2007, when two high school chemistry teachers in the United States, D. Bergman and A. Sams, began to distribute to their students not printed materials, but video lessons, which could be used to study new educational material at home. The school where Bergman and Sams worked was in the countryside; pupils often missed classes. To save their time and not have additional lessons with the absent, teachers came up with the idea to record their lessons on video. Thus, students who missed the lesson could watch the video of this lesson at home at a convenient time for them. Students enthusiastically embraced the proposed approach to self-study of the material in the class. Moreover, those who attended the class began to review the video lessons, especially during the preparation for the exams. According to Bergman and Sams, as a result of the experiment, the number of unsuccessful students significantly decreased [4]. The success of the video tutorials served as an impetus for further development and experimental testing of this idea in terms of finding ways of optimal delivery of educational content.

This method became a small "revolution" in relation to traditional education and the possibility of professional development and self-improvement for progressive teachers who, without neglecting the process of transferring knowledge, focused their efforts on student-centered learning and the development of students' competencies. Currently, there are several forms of inverted learning [2]. The classical model of flipped learning involves preliminary acquaintance of the student with the theoretical material of the upcoming lesson. Materials for preparation can be given both in the form of a basic lecture

notes or a paragraph of a textbook, and in the form of slides, video and audio documents. In the classroom, the teacher organizes a discussion of the material studied, explains difficult points, answers questions, and uses interactive teaching methods. It should be noted that despite the fact that training is partially carried out remotely, this model continues to resemble the traditional education system and is of a translational nature: first, theories, concepts and models are studied, and then their practical application.

The next model of inverted learning, conventionally called "advanced", also provides for two stages - extracurricular and classroom and involves a gradual complication of the level of tasks and expansion of activities. During preliminary preparation, students independently search for information on a given topic, read articles, watch videos, in mini-groups or individually prepare theses that they will present to the audience, questions for a debate or a round table. They post the results of the work on a joint electronic platform so that the teacher and other students have the opportunity to familiarize themselves with them in advance and better prepare for the lesson. Thus, the monitoring of the independent work of each student is carried out. In the audience, a presentation of prepared abstracts, a discussion of the read material, a reasoned analysis of the work of each group, the creation of a general conceptual picture based on opinions, comments, opinions expressed, or a mini-colloquium in which one group makes a presentation, and the other organizes debates are carried out.

Finally, the systemic or combined model of the inverted class involves, as its name suggests, a combination of the first two models. The essence of this model is not to change the place where a certain type of activity is performed, but to rearrange the key components of the

educational process. The traditional sequence is changing the competencies involved (memorization, understanding, application, analysis, synthesis, evaluation). Practical application is studied first theory or model and only then its theoretical justification. In the context of increasing practice-orientation educational process, this model of inverted learning is a pedagogical approach that is closest to reality, since in everyday and professional life. Flipped classroom technology significantly changes the traditional assessment process based on the reproduction of knowledge and its application in a well-defined academic setting. Different models of the inverted classroom allow using a wider arsenal of forms of control of students' knowledge, depending on the tasks facing the students. If the information was not provided by the teacher, but the students themselves had to find it, the approaches used to search for information are evaluated, as well as the quality of the information itself. If the student had a task communicate the information to the group and organize a discussion, the quality of communication within the group is assessed, the contribution of each to collective knowledge, the effectiveness of mutual learning. Peer assessment and self-esteem are also essential.

In addition, large-scale additional work for teachers is a serious obstacle to the introduction of flipped classroom technology in Russian universities. To prepare high-quality materials for the extracurricular work of students, the teacher must not only process a significant amount of information, but also arrange everything beautifully and efficiently. Often teachers do not have sufficient knowledge in the field of information technology application. If this work is not additionally supported by management, few teachers will agree to drastically change their

style of work. This requires technical and administrative support, which is very time-consuming and costly. Technical equipment is also a problem. Inverted teaching requires appropriate technical equipment of all classrooms, as well as the personal information space of the teacher and students, constant access to the Internet, but even in this case, no one is immune from "failures" in the operation of technology.

Despite the above problems that complicate the implementation of inverted education in Uzbekistan universities, this technology, according to foreign and domestic researchers, has many advantages over the traditional education system.

Proceeding from the fact that the quality of education is determined, first of all, by the quality of the bearer of knowledge, teacher, lecturer, inverted learning is an effective method of quality improvement, motivating teachers to professional development, improving working methods, expanding strategies, introducing new educational technologies. The advantage of the method lies in its flexibility, in the ability of each teacher to use in each specific situation the option that best suits his goals. This is an opportunity to get rid of the traditional dubbing of lecture texts and use classroom lessons for creativity, discussion of practical problems, and the results of joint projects. The use of active forms of work in classroom time contributes to the development of emotional relationships between all participants in the study. We consider it necessary to emphasize that the introduction of the inverted classroom technology into the educational process will complicate the work of teachers, require mastering new pedagogical techniques, studying the specifics of the specialty of future graduates, preparing new materials, creating

multimedia content; but this work will pay off by improving the quality of student training.

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