

“FLIPPED LEARNING” AS A MODERN TECHNOLOGY FOR TEACHING ENGLISH

«ПЕРЕВЕРНУТЕ НАВЧАННЯ» ЯК СУЧАСНИЙ ПІДХІД ДО ВИКЛАДАННЯ АНГЛІЙСЬКОЇ МОВИ

With the development of technologies most important questions for every teacher are: How to make it more interesting for students to learn? How to achieve maximum results in minimum time? What to do if a student is ill for a long time or goes to competitions, festivals, contests... Today, a huge number of teachers are looking for answers to these and other similar questions. And the solution to these problems is a model of learning, the effectiveness of which is convinced by almost everyone who has tried it. This is inverted learning (inverted class). Today it needs practically oriented citizens of society, so the technology of "inverted class" will save students and teachers from standard lessons, create conditions for free access to educational resources, communication with each other, cooperation in educational activities and provide opportunities for personal, creative and competence development. "Flipped lessons" involve reading the educational material at home. Training material can be presented as videos and presentations. In the classroom, students are more concerned with what is considered homework. In other words, what was the basis of classroom work has now become homework. This requires the teacher to move away from the position of an omniscient expert who is fully responsible for process management and its outcome and takes on the role of a facilitator who helps, explains and supports learners. The teacher ceases to be the only or even the main source information for the student. In some ways its task is even more difficult - it requires planning skills, forecasting results, monitoring and evaluating the effects of learning, as well as management skills negotiations and moderation. Requires imagination and courage. But the reward is usually much better result, student involvement and job satisfaction. Such inverted strategies allow it is also much better to use information technology in the learning process.

Key words: *information technologies, blended learning, flipped classroom, traditional learning, educational technologies.*

Із розвитком технологій найважливішими питаннями для кожного вчителя є: як зро-

бити навчання цікавішим для студентів? як досягти максимальних результатів за мінімальний час? що робити, якщо студент довго хворіє або їздить на конкурси, фестивалі і т. д.? Сьогодні величезна кількість викладачів шукає відповіді на ці та інші подібні питання. І вирішення цих проблем – це модель навчання, в ефективності якої переконують майже всі, хто її випробував. Це – перевернуте навчання (перевернутий клас). Сьогодні потрібні практично орієнтовані громадяни суспільства, тому технологія «перевернутого класу» врятує учнів та вчителів від стандартних уроків, створить умови для вільного доступу до освітніх ресурсів, спілкування один з одним, співпраці в освітній діяльності та надання можливостей для особистого, творчого та компетентнісного розвитку. «Перевернуті уроки» передбачають розгляд навчального матеріалу вдома. Навчальний матеріал може бути представлений у вигляді відео та презентацій. У класі учні більше стурбовані тим, що вважається домашнім завданням. Іншими словами, те, що було основою роботи в класі, тепер стало домашнім завданням. Це вимагає від викладача відійти від позиції всезнаючого експерта, який повністю відповідає за управління процесом та його результати, та бере на себе роль фасилітатора, який допомагає, пояснює та підтримує учнів. Учитель перестає бути єдиним чи навіть основним джерелом інформації для учня. У деякому роді його завдання ще складніше – воно вимагає навичок планування, прогнозування результатів, моніторингу та оцінки наслідків навчання, а також переговорів та модерації управлінських навичок. Потрібні фантазія і мужність. Але винагорода, як правило, – набагато кращий результат, залучення студентів та задоволення роботою. Такі перевернуті стратегії дають змогу також набагато краще використовувати інформаційні технології в процесі навчання.

Ключові слова: *інформаційні технології, змішане навчання, змінений клас, традиційне навчання, освітні технології.*

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Formulation of the problem. Modern society is characterized by the virtualization of life and social communications. Information and communication technologies (ICT) have penetrated deep into our daily lives and have already changed our behavior, our communication, our approaches to work and leisure, our way of life. The inevitable introduction of digital technologies in the educational process requires a revision of the existing pedagogical paradigm, which is based on the narrative nature of knowledge transfer. Given the considerable amount of information available to students through the Internet, teacher is no longer the only source of knowledge.

To improve the quality of education it is necessary to introduce new approaches to learning, more adapted to the needs of current 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, to solve problems that are impossible to imagine.

In the conditions of constant economic and social changes it is very important to teach students to study independently, to update their knowledge throughout life, to constantly improve their skills. Therefore, teachers face the difficult task of choosing ways

and forms of organizing educational activities, the implementation of which in the specific conditions of the educational institution will give a high level of quality of student training. In response to today's challenges, the so-called "blended learning" is becoming more widespread in the world, which allows to maximize the potential of ICT through the integration of traditional classroom and distance learning.

Analysis of recent research and publications.

The concept of "flipped classroom" as a kind of "blended learning" (blended learning) is actively studied in foreign scientific and pedagogical publications over the past decade. Scientific achievements of such researchers as J. Bergmann [1] and A. Sams [2], M. Warshauer, P. Whittaker [10], J. Graney [5], J. Nouri [7], A. Roehl, L. Reddy) та G. Shannon [8], K. Fulton [4], H. Hung [6], E. Chung [3], K. Walsh [9] became the basis of our research.

The purpose of the article is to highlight the peculiarities of the application of pedagogical technology "inverted learning" in the process of teaching the discipline "Foreign Language" in high school. Achieving the goal of the study requires solving the following tasks: to characterize the technology of "inverted learning"; to determine the advantages of this educational concept and prospects for its implementation in the practice of higher education institutions.

The inverted classroom is a model of blended learning in which homework involves the student learning a new topic independently: watching a video lecture; reading educational texts, viewing illustrations; passing tests and exercises for the initial mastering of the topic. Then, while working in the classroom, students learn more complex theoretical material and questions that arose in them during homework (not more than 25–30% of the time). Also in the classroom, children solve practical problems and do research tasks together with the teacher. After class in the classroom, students have more complex practical tasks, tests to understand and consolidate the topic.

Presenting main material. The first models of the inverted class were first used in 2007 by American teachers Jonathan Bergman [1, p. 289–292] and Aaron Sams [2, p. 112], who spent a long time thinking about how to provide their lectures to athletes who often miss classes. Over time, this idea developed into a new educational direction, but at first it was the usual Power Point presentations, to which teachers added voice guidance and posted on the Internet.

Today, almost every modern teacher has a powerful tool for creating learning materials for inverted classroom learning: Google services (YouTube, Google Drive and others), Office 365 (Power Point, Video, Sway and others), online video editors (Animoto, JayCut, Stupeflix, One True Media,

Movie Masher and many others), online editors of tests and questionnaires (Google Forms, Master Test, Online Test Rad, Poll Service, etc.), as well as exercises, games and puzzles (Learningapps.org, Wizer.me, Study Stack, ClassTools.NET, etc.).

Problems and difficulties that a teacher may have when organizing an inverted classroom:

- The need for long and careful preparation of videos, texts, illustrations, training exercises, games and tests.

- The need for additional motivation of students at the beginning of this model (usually in the first steps, students do not do homework, hoping that the teacher in the classroom will explain everything).

- The teacher needs to be constantly in touch to provide advice to students, provide explanations, and so on.

- Students may have trouble accessing the Internet.

But despite these and other problems, the inverted class model has a number of advantages:

- Save and free time in class to solve problems (including advanced level), perform research tasks, etc.

- Individual approach (the student can watch an infinite number of times videos or other supporting materials at a convenient time, and in case of questions to ask the teacher for help).

- Providing active learning.

- Extensive use of opportunities to learn the Internet, which is sometimes impossible in a regular classroom.

- The teacher prepares the teaching materials once and then uses them an infinite number of times.

In addition, the technology of "inverted learning" fully meets the three psychological needs of students considered by the theory of self-determination, namely:

1. The need for autonomy, which is a person's desire to feel the initiator of their own actions, as well as self-control their behavior.

2. Need for competence, which means a person's desire to achieve certain internal and external results, as well as its desire to be effective in something.

3. Relatedness needs, which means a person's desire to establish a reliable partnership based on a sense of belonging to any community [3, p. 29-36].

According to this theory, the social context, which increases a person's sense of competence during the performance of an action, increases its motivation to perform the action. However, the sense of competence has a positive effect on human motivation only in conjunction with a sense of autonomy [3, p. 29-36].

There are a number of approaches to the deployment of "re-learning", but they are all based on a single basic principle: acquaintance with new material takes place outside the classroom, while classroom work is devoted to the practical application of knowledge [2, p. 112].

1. The “classical” model of “inverted learning” involves prior acquaintance of the student with the theoretical material of the future lesson. Preparation materials can be given in the form of a reference syllabus of lectures or a paragraph of the textbook, and in the form of slides, video and audio documents. In the classroom, the teacher organizes a discussion of the studied material, explains difficult moments, answers questions, uses interactive teaching methods. It is worth noting that despite the fact that learning is partly conducted at a distance, this model continues to resemble the traditional education system and has a translational character: first theories, concepts and models are studied, and then their practical application. However, all of them are based on a single basic principle: direct learning is carried out outside the classroom, while teaching time is devoted to the practical application of the acquired knowledge.

2. The “advanced” model of “inverted learning” also has two stages - extracurricular and classroom and involves a gradual complication of the level of tasks and expansion of activities. In the process of preliminary preparation, students independently search for information on a given topic, read articles, watch videos, in mini-groups or individually prepare abstracts that they will present to the audience, questions for debate or round table. They place the results of the work on a common electronic board-form, so that the teacher and other students have the opportunity to get acquainted with them in advance and better prepare for the lesson. Thus, the independent work of each student is monitored. The audience presents the prepared theses, discusses the material read, reasoned analysis of each group, creating a general conceptual picture based on opinions, comments, judgments, or a mini colloquium in which one group makes a presentation and the other organizes a debate.

3. The “systemic” or “combined” model of “inverted learning” involves, as its name implies, a combination of the first two models. The essence of this model is not to change the place of performance of a particular type of activity, but to re-establish the key components of the educational process. The traditional sequence of competencies involved (memorization, understanding, application, analysis, synthesis, evaluation) is changing. First, the practical application of the theory or model is studied and only then its theoretical substantiation.

Thus, during the “inverted learning” the student receives the most relevant and targeted assistance at the very moment when he needs it the most - at the stage of practical application of the acquired knowledge. While the classroom system leaves him “alone” at the time of traditional homework, which requires the application of theoretical knowledge obtained in the classroom in practice.

The successful introduction of this technology in the educational process is facilitated by the use of electronic educational environment, in which there is an exchange of information between students and teachers. For example, many universities, including National Technical University of Ukraine “Igor Sikorsky Kyiv Polytechnic Institute”, actively use the higher education environment Moodle. Being a hosting, such an environment allows the teacher to download the necessary tasks (teaching, testing, additional) for both classroom and extracurricular independent work of students.

Web 2.0 offers many alternative services that will add interactivity to the teaching of a foreign language. Here are some tools that can be used in the organization of distance learning to learn new material and prepare students for practical classes in the classroom.

most tools are free. www.slideshare.net - slide hosting, with which the teacher can download files with new learning material in PowerPoint, PDF, Keynote or OpenDocument. The slides can then be viewed on the site itself, on mobile devices, and later embedded in other sites.

www.lessonwriter.com is a site designed to develop reading lessons. Foreign language teachers can insert the text of their choice. This tool automatically generates a dictionary and also supports students in pronouncing correct pronunciation and using grammatical constructions. It is possible to add exercises and control questions related to the text. Teachers can also exercise full control over the acquisition of knowledge and use ready-made lesson plans as an example.

www.voxopop.com is a tool for developing voice skills using voice recording. Students can listen to the recorded answers of their classmates. This allows students who are ashamed or unwilling to participate in discussions to communicate in a foreign language. www.eslvideo.com is an educational resource for improving listening skills, as well as expanding the foreign language vocabulary. The teacher can create quizzes based on excerpts from famous foreign films or other videos.

It should be noted that the organization of the educational process using the technology of “inverted learning” requires from the teacher a huge amount of time and additional training in the field of information technology. In addition to knowledge about the availability of various information tools, it is also important to analyze them qualitatively and select those that meet the educational objectives.

In addition, the course already developed needs constant revision and updating, as many materials, for example, may simply disappear from the Internet or become obsolete. Given the special specifics of the subject “Foreign Language”, the teacher should also thoroughly approach the issue of selecting material

that is best presented online using the technology of “inverted learning”, because not all foreign language classes can be organized for using this technology. And another important issue.

And another important question. The technology of “re-learning” significantly changes the process of traditional assessment, based on the reproduction of knowledge and their application in a clearly defined academic situation. Different models of “inverted learning” allow you to use a wider arsenal of forms of control of students' knowledge, depending on the tasks facing students. If the information was not reported by the teacher, and the students had to find it themselves, the approaches used to search for information are evaluated, as well as the quality of the information itself.

If the student had the task to inform the group of the received information and to organize discussion, the quality of communications within the group, the contribution of each to the collective knowledge, the effectiveness of mutual learning is assessed. Peer assessment as well as self-assessment are also important.

Conclusions. Undoubtedly, advanced online technologies play an important role in improving the process of learning a foreign language. Digital educational resources have not only become a part of everyday life of modern man, but also confidently integrated into the institutional study of foreign languages. The lack of real language practice (lack of native speakers in students' communication) is easily compensated by Web 2.0 tools, which create a language learning environment, allowing students to acquire and generate knowledge, rather than remain passive recipients. The technology of “flipped learning” allows to use various resources for this purpose that students more effectively independently prepared for practical employment.

The key advantage of “flipped learning” is that students are able to consult their teachers much more often, which helps to strengthen the connection between them. In addition, weak students manage to gain momentum and “catch up” with their stronger classmates. A common learning environment is being created.

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