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## **Мотиваційні складові системи змішаного навчання для викладачів і студентів**

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**Анотація.** Актуальність дослідження проблеми змішаного навчання та мотиваційної складової зумовлена дедалі більшим її розголосом серед сучасних науковців і викладачів. Мета цієї роботи полягає у відображенні сценарію розвитку сучасних освітніх тенденцій, а саме поступового переходу на гібридний формат навчання, що є неминучим для сучасного суспільства. Для дослідження проблеми мотивації студентів і викладачів під час застосування змішаного навчання було використано теоретичний, емпіричний і порівняльний методи дослідження. Вказані методи допомогли глибинно розкрити тему дослідження, виокремити та проаналізувати окремі елементи проблеми та зрозуміти головну ідею досліджуваного об'єкта. З'ясовано, що змішане навчання – новий освітній підхід, який комбінує переваги традиційної системи отримання знань та е-навчання. Показано, що таке навчання вважається ефективним підходом і користується популярністю серед навчальних закладів через його позитивний вплив на мотивацію студентів. Обґрунтовано, що гібридна форма допомагає викладачам залучати студентів в навчання та сприяє розвитку соціальних та практичних вмінь. Підтверджено, що з розвитком змішаного навчання студенти почувуються впевненіше та вмотивованіше, а викладачі професійно розвиваються та стають хорошими фахівцями. Технології спростили молоді життя, а викладачів наблизили до студентів. Доведено, що з розвитком змішаного навчання з'являється можливість отримання матеріалів з актуальною інформацією, відпрацювання практичних навичок «hard skills» здійснюється за допомогою сучасної техніки, нових версій навчального програмного забезпечення. У такий спосіб у статті було відтворено проблему змішаного навчання, як такого, та аргументовано необхідність детального розгляду будь-якої наукової проблеми з урахуванням усіх її первинних чинників і подальших наслідків

**Ключові слова:** гібридна освіта, мотивація, інформаційно-комунікативні технології, організація навчального процесу, традиційне навчання

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## Motivational Components of a Blended Learning System for Teachers and Students

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**Abstract.** The relevance of the study of blended learning and the motivational component is attributed to its increasing publicity among modern scientists and teachers. The aim of this study is to display the scenario of modern educational trends development, namely, the gradual transition to a hybrid education model, which is inevitable for modern society. Theoretical, empirical, and comparative research methods were used to research the issue of motivation of students and teachers in the application of blended learning. These methods helped to examine in depth the research topic, highlight and analyse individual components of the issue, and understand the key idea behind the object under study. Blended learning has been found to be a new educational approach that combines the advantages of both the traditional system of knowledge acquisition and e-learning. It is shown that this type of education is considered an effective approach and is popular among educational institutions for its positive impact on student motivation. It is confirmed that the hybrid learning model helps teachers attract students in the learning process and contributes to the development of social and practical skills. With the development of blended learning, it is affirmed that students feel more confident and motivated, and teachers develop professionally and become good specialists. Technology has simplified young people's lives and brought teachers closer to students. It has been proved that with the development of blended learning, it becomes possible to obtain materials with relevant information, to practice hard skills using modern technology, new versions of educational software. Thus, the article reproduced the issue of blended learning, as such, and argued for the need for a detailed consideration of any scientific problem, taking into account all of its primary factors and further consequences

**Keywords:** hybrid education, motivation, information and communication technologies, organisation of the educational process, traditional training

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## INTRODUCTION

Nowadays, blended learning is very popular among the world's higher education institutions. The gradual introduction and use of blended learning as an innovation leads to a number of changes in the training activities of both the student and the teacher. The student is given space for freedom and feels responsible, where learns to make deliberate choices and take responsibility for their consequences. The teacher, for their part, discover new roles for themselves, there is a transition from a teacher-translator (the usual form of oral story-lecture) to a tutor (assistant, a key figure in the online environment, who accompanies and advises). The key tool of the educator becomes the learning environment, in which the boundaries between the classroom and the online environment are blurred.

Hybrid learning is, first of all, an opportunity to combine the benefits of traditional and e-learning, efficient and productive time use, student training improvement through a comfortable combination of e-learning and classroom-based classes, the ability to study relevant and modern theoretical material in an online environment by using the correct online sources and, at the same time, the practice of certain skills can be obtained while studying in classrooms. However, before introducing the latest type of training as blended, there is a need to understand various factors that indicate the willingness of the student or teacher to approve such a learning approach, because not everyone is familiar with the e-format of learning and not everyone considers it to be quality. In cases where the teacher plays a major role between the student and the type of training, the success of implementing the desired approach depends on this.

In practice, there are some teachers who are not ready for changes in educational system themselves, since innovations tend to involve additional functions and responsibilities, which significantly reduces the motivation of teachers. Therefore, if we do not outline the motivational components for a new approach to learning, and do not provide an incentive to implement the latest training technologies, then all efforts and ideas will be rendered meaningless. Problems of motivation and blended learning are paid attention to by many foreign scientists, in particular Ch. Graham and J. Stein [1], R. Rafiola and R. Setyosari [2], S. Tucker, T. Wycoff, J.T. Green [3], B. Vever, M. Voent [4], R. Fisher, A. Perényi, N. Birdthistle [5], M. Biddle, M. Hoover [6], D.U. Bolliger, C. Halupa [7] et al, however, despite the popularity of blended learning, there is currently no specific model describing motivation that would have an impact on teachers' and students' beliefs and opinions on online learning.

Thus, *the purpose of this study* is to identify factors

that motivate the teachers of higher education institutions to integrate the blended learning approach into their courses, and students to quality interaction of the learning process and information and communication technologies, and, as a result, effective knowledge acquisition.

*The object of this study* is to identify the motivational components that positively set the teacher and the student to use blended learning to replace traditional learning.

## METHODOLOGY

In accordance with the deliberative and general nature of the topic of the article, a number of general scientific methods were used during the research. The issues of student and teacher motivation from the use of blended learning methods were analysed using the following general scientific methods: empirical, theoretical, and comparative. Such methods were chosen to better understand and delve into all aspects of the issue of motivation and blended learning. Relying on the empirical method, the study was carried out in stages. The first stage involved choosing the object of research and stating the topic. The next step is an in-depth analysis of all aspects and elements of the chosen research topic. The final stage of the method was to describe the results obtained and write conclusions. [8]. Empirical research, as a rule, begins with the observation of a specific object, in this case tracing the trend of using blended learning by students and teachers, as well as study the issue of motivation in the use of blended learning.

In the process of using the theoretical method, it is advisable to include the synthesis method while researching the problem. This method, on the one hand, complements the method of analysis and, at the same time, allows us to study the problem in fragments, identify individual aspects of the object and, accordingly, combine and compare all the elements of the study into one whole [8]. Based on the theoretical method, through analysis, abstraction, generalisation, and analogies, the necessary amount of materials was collected, mainly focusing on publications of foreign scientists in connection with the widespread practice of using blended learning in World higher education institutions. Based on the analysis of studies, opinions, statements, or assumptions of scientists, it is possible to better understand the motivational factors of students and teachers by thoroughly comparing all points of the learning process in traditional, classroom-based and online formats. Such data can be best traced not only in scientific publications, but also on the basis of reviews, comments on educational forums, blogs, articles from students or teachers themselves. The third method used in the study is comparative.

The comparative method determines truth and facts by comparing, establishing similarities and differences between the objects studied [9]. In this specific study were compared: traditional and online learning, namely, the effectiveness of these types of training, the level of student engagement and satisfaction and comparison of workload of teachers when preparing for lectures, practical classes in a classroom-based format and online classes; advantages and disadvantages of blended learning, which students and teachers face when organising the learning process, and as a result, the identification of motivational components from both ways of learning organisation, based on the opinions of students and teachers. When researching a topic of deliberative nature, it is necessary to focus not only on the views of scientists, but also to take into account the opinions and impressions of the participants of a given type of training, whereas scientific statements usually originate from the observations of those who are directly involved.

## RESULTS AND DISCUSSION

### ***Blended Learning as an Educational Trend***

Modern educational trends have set a new style in teaching, which is no longer possible to reject, but to which it will be necessary to gradually adapt. Blended learning is a relatively new educational approach that has increasingly been the subject of discussion by a large number of scholars and educational opinion leaders in recent years. This approach combines the advantages of a formal, traditional knowledge acquisition system and e-learning. Allegedly it is on the basis of this approach to find a reasonable combination of external influence and personal initiative in acquiring knowledge, working according to the above-mentioned approach. Even the minimal implementation of blended learning supports motivation due to the presence of freedom in the online environment, that is, there is an opportunity to pursue their own interests, and, as a result, self-actualisation, the development of personal responsibility for learning outcomes. Blended learning is considered an effective approach to teaching both a huge number of students and each student individually [10]. In addition, blended learning model is now popular among educational institutions due to its positive impact on the motivation and academic performance of students in general [11]. Hybrid learning helps teachers engage students in active learning that contributes to the development of such skills as communication, information literacy, creativity, and collaboration, which translate into the ability to use digital technologies for a variety of purposes. While blended learning has its advantages, there are also

certain disadvantages associated with its implementation, such as the lack of regular meetings with teaching staff. The lack of sufficient institutional support during hybrid learning can also reduce the motivation of teachers to shape their training courses into a blended format, which can hinder their desire for change [12]. For a better understanding, it is worth examining in greater detail what specific motivational factors influence and motivate students and teachers to use blended learning.

Foreign scientists, such as M.G. Brown, M.T. Hora, G. Torrisi-Steele, S. Drew et al, note that factors responsible for teachers' motivation to accept blended learning as such, considering interest, independent learning, personalised learning, computer self-efficacy, social perception, external expectations, and skill improvement [13]. The same scientists identified other influential factors grouped into two categories, namely: external and internal, based on the experience of individual teachers in the practice of blended learning [14]. Internal influences have their own catalyst as an individual cognition of the teacher. A striking example of this is the teacher's pedagogical philosophy [15]. Depending on the teacher's analytical interest, external influences can be called cultural, structural, or educational. Also, teacher motivation includes: perceived usefulness, professional support, training, institutional infrastructure, senior staff involvement, and effectiveness. Such factors are important variables in the application of technologies among teachers of higher educational institutions [16]. High utility encourages teachers' intention to integrate technology into their teaching activities [17]. The lack of technological literacy slows down the use of blended learning among teachers, while interaction with technology encourages the intention to combine learning activities with information and communication technologies. Consequently, the difficulties faced by teachers in terms of technology depend on insufficient technological literacy [18]. It is also a fact that teachers expect comprehensive technical support and readiness from educational institutions for classes on professional development technologies, which significantly affects the motivation of teachers to use a particular technology for teaching [19]. Lack of access to appropriate hardware and software can dramatically demotivate teachers and, as a result, create a reluctance to continue using the blended learning approach. From such assumptions, it can be concluded that the interaction of teachers with technology has a positive effect on the motivation to apply blended learning.

### ***The Problem of Blended Learning from the Perspective of Teachers***

Teachers often raise the question: "How much time should

be devoted to classroom activities and online events?” [20]. One of the problems of teachers during the practice of blended learning is the academic load. Blended learning takes time. According to the reviews and comments of teachers, which can be seen on various educational communities, social media pages, most of the time spent on the practice of blended learning fell on research activities and the development of the curriculum, which negatively affects the academic load [21]. Conforming to reviews of the above-mentioned studies on this topic, it is clearly seen that the cost of processing educational materials for traditional and online formats requires a lot of time [22]. Based on these scientific opinions, only a properly selected academic load, taking into account both formats of knowledge provision, positively affects the motivation to apply blended learning, otherwise it can dramatically demotivate the teacher. The organisational willingness to contribute to blended learning and to the development of a system of communication between students, teachers, and the administration of the institutions are also considered vital for the motivational influence on the use of blended learning. To make blended learning successful, institutions need to have clear and supportive institutional policies, guidelines, and practices on the idea of blended learning courses, as they are reported to be largely underdeveloped in higher education institutions. According to these statements, a properly configured institutional environment has a positive impact on the motivation for applying blended learning among teachers.

The interaction between the student and the teacher has its own impact on the motivation of teachers. Students usually give positive feedback on hybrid learning practices, and based on this, teachers continue to implement online tools in their respective courses [23]. With the rapid development of technology, students rely less and less on teachers as a source of knowledge, and in order to meet student expectations, teachers are learning, improving, and therefore becoming better professionals.

### ***Student's Perspective on the Issue of Blended Learning***

Speaking of student motivation for blended learning, the first thing students consider is freedom of action, comfortable working conditions and workplace, saving time and gaining knowledge from high – quality resources while developing technical skills. The problem of motivating students to blended learning should be considered through the lens of the following factors. First of all, attention is paid to the supply or provision of educational materials. Predominantly, “Soviet” habits are still practiced in higher education institutions – the teacher comes to the classroom, takes out a paper lecture written manually back in the 1980s, and continues to read it out

to more and more courses each time, considering it a high-quality scientific heritage that will never become obsolete. Also, as an example, we can often see in the laboratory classes of courses on information technology, the use of far from new technical equipment filled with outdated software. We can already draw the first conclusions that such traditional training cannot motivate anyone. With the development of the blended learning approach, students feel more confident and motivated, as it becomes possible to obtain modern “fresh” materials with up-to-date information, perform certain laboratory work using modern and powerful equipment, new versions of the necessary educational software, and so on.

The issue of students’ motivation to blended learning should also be considered through the lens of the student’s work with educational materials. It is becoming increasingly difficult to motivate a student in traditional education. The student pays attention to dry and non-visualised lectures up to 1 minute of time, which gradually became a problem for the teacher and, to a certain extent, a challenge. With the introduction of blended learning, the problem of data visualisation has come to the foreground, and now it is almost impossible for a student to imagine gaining knowledge without a visual representation. Only in this way is the student motivated to delve into, understand, read into what is shown before their eyes. Admittedly, this method can hold the student’s attention for some time, but still the data visualisation technology significantly prevails and yields its results.

Taking into account the interaction of the student with the teacher, it is worth noting that in the traditional format of training there are few variants of this interaction, typically, this is the format “the teacher speaks, the student listens” or “the teacher asks, the student answers”. Only recently have there been live discussions on different topics, organisation of round tables, participation in situational cases for the relevant topic of the course. With the advent of Information Technologies, students have become closer to teachers – joint participation in blogs, forums, Messenger chats, groups, where you can receive an answer for your question from teacher in a matter of minutes, discuss tasks that the student is working on, optionally, consult or just chat, discuss any scientific topic. Technology has simplified the lives of young people, and brought teachers closer to students, which allowed teachers to improve and adapt to new realities.

Interaction between students during the learning process cannot actually be described as improved or worsened. In both cases, students find a common language, join groups, work together on tasks, projects, and so on. In the case of the blended learning approach, students become more cohesive and sociable with each other,

since being at a distance, the goal of performing certain tasks does not disappear anywhere, and performing such tasks requires a lot of deliberation, discussions, brainstorming and other communication techniques. Online, students can maintain communication for a long time in a comfortable environment. Working in a traditional classroom-based format, students have somewhat limited time to discuss projects, tasks, or other activities, and there is not always the motivation and energy after a series of lectures and practical sessions. Using online platforms, communication becomes more comfortable and efficient.

At the Middle East Technical University (Ankara, Turkey), local scientist Omer Delialoglu conducted a small series of surveys with students on the motivation for hybrid learning [24]. The students were interviewed for 40-60 minutes. These interviews were recorded with the consent of the students for a detailed analysis of students' motivation for blended learning. The results of these surveys were as follows: students are motivated to study computer networking courses, as this provides them with deeper knowledge of the way technology works. Students are also impressed by the style and structure of mixed courses. The course, which was conducted completely online, did not interest students so much, and the 50/50 course is considered the best learning solution. Students also claim that they enjoy practicing and applying the information they find and study on the internet. According to students' comments, cognitive tools gave the blended course an element of professionalism, making it different from the standard one. One of the students commented: "The tools on the training site were very useful. I used them to quickly obtain information from web sources". The website, filled with educational ma-

terials, was found to be very user-friendly, beautiful in terms of graphics, and well-organised in terms of accessing information. Students liked the navigation structure and information presentation structure [24].

## CONCLUSIONS

The following conclusions can be drawn from studying the issue of students' and teachers' motivation: everyone is used to the traditional format of learning, and not everyone is impressed by the pressure of information technology on the learning process, which we can now observe. However, it is worth understanding the fact that technologies will not disappear anywhere, but on the contrary will absorb the educational sphere, so the transition to a hybrid learning format is inevitable. In the case of teachers, there is only one way - the way of constant development, improvement of new pedagogical technologies and skills, adaptation to new educational realities as quickly as possible, since the role of a teacher is equal to a performer, consultant, a person who provides educational services, and these services must be of proper quality. The main task for teachers is to find "the golden mean", a motivating factor that can concentrate the student's attention and interest them in educational material. In the case of the student, the situation is much simpler, since students are more inclined to experiment, to try something new, they are interested in studying remotely, so the motivation from using information technology is much higher, but it is not conclusive. This form of learning also has its obstacles which are worth addressing, learning to avoid them during training and self-discipline based on them, namely social networks as a distraction, low quality, inaccuracy of information, irrelevance of educational materials, et cetera.

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