

**FLIPPED CLASSROOM AS AN INNOVATIVE TECHNOLOGY FOR BLENDED  
LEARNING OF PROFESSIONAL ENGLISH IN HIGHER EDUCATION  
INSTITUTIONS**

***FLIPPED CLASSROOM COMO UMA TECNOLOGIA INOVADORA PARA A  
APRENDIZAGEM HÍBRIDA DE INGLÊS PROFISSIONAL EM INSTITUIÇÕES DE  
ENSINO SUPERIOR***

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APRENDIZAJE BLENDED DE INGLÉS PROFESIONAL EN INSTITUCIONES DE  
EDUCACIÓN SUPERIOR***



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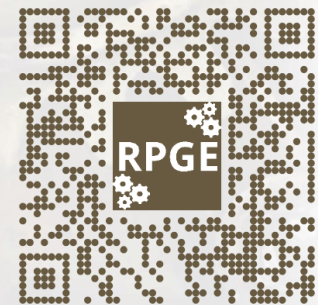
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**ABSTRACT:** This article provides an overview of research on the concept of blended learning, its characteristics, and perspectives on its use in teaching English language teaching in higher education. The paper presents the results of a pedagogical experiment involving the integration of flipped classroom technology into the learning process and demonstrates its effectiveness in teaching professional English. The article's authors conclude that using flipped classroom technology in teaching the “Professional English” course can become an effective tool for a university teacher. It is advisable to integrate it into the educational process to ensure the delivery of quality educational services, create real opportunities to improve students' professional training, personalize the educational process, and align it with the needs of each student, regardless of their initial level of activity.

**KEYWORDS:** Blended learning. English. Flipped classroom. Students. Teachers.

**RESUMO:** Este artigo fornece uma visão geral de uma pesquisa sobre o conceito de ensino híbrido e suas características e perspectivas de uso no ensino de inglês em instituições de ensino superior. O artigo apresenta os resultados de um experimento pedagógico envolvendo a integração do modelo flipped classroom no processo de aprendizado e demonstra sua eficácia no ensino de inglês profissional. Conclui-se que o uso do flipped classroom no ensino do curso “Inglês Profissional” pode se tornar uma ferramenta eficaz para o professor universitário. É importante integrá-lo ao processo educacional para garantir a prestação de serviços educacionais de qualidade, criar oportunidades reais para melhorar a formação profissional dos alunos, personalizar o processo educacional e alinhá-lo às necessidades de cada estudante, independentemente de seu nível inicial de formação.

**PALAVRAS-CHAVE:** Ensino híbrido. Inglês. Aula invertida. Estudantes. Professores.

**RESUMEN:** El documento presenta una descripción general de la investigación sobre el concepto de aprendizaje combinado, las características del aprendizaje combinado y las perspectivas de su uso en la enseñanza del inglés en la educación superior. El artículo presenta los resultados de un experimento pedagógico sobre la introducción de la tecnología de aula invertida en el proceso de aprendizaje y demuestra su eficacia en la enseñanza del inglés profesional. Los autores del artículo concluyen que el uso de la tecnología de aula invertida en la enseñanza del curso de “Inglés profesional” puede convertirse en una herramienta eficaz para un docente universitario. Es recomendable integrarlo en el proceso educativo para asegurar la calidad en la prestación de los servicios educativos, crear oportunidades reales para mejorar la formación profesional de los estudiantes, personalizar el proceso educativo y acercarlo a las necesidades de cada alumno, independientemente del nivel de su formación inicial.

**PALABRAS CLAVE:** Aprendizaje combinado. Inglés. Aula invertida. Estudiantes. Profesores.

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## Introduction

In the contemporary system of higher professional education, selecting the most effective innovative methods and technologies remains a significant and pertinent issue. The primary objective underlying the adoption of innovative education methods is to cultivate student's motivational aptitude, enhance their navigation within the information sphere, and nurture creative, unconventional thinking. Innovations in English language instruction comprehend a multitude of facets within the educational process, in particular, spatial reconfiguration of classrooms, the incorporation of cutting-edge technological resources, and utilization of new educational techniques both during classroom sessions and students' independent study hours (NIKIPORETS-TAKIGAWA; SKORODUMOVA; MELIKOV, 2022).

Moreover, Information and Communication Technologies (ICT) profoundly influence everyday life, changing attitudes and approaches towards work and leisure time. Contemporary society is marked by the virtualization of life and social interactions. Given the vast expanse of information available on the Internet, it can be asserted that educators are no longer the only holders of knowledge. Hence, integrating traditional classroom-based and distance learning modalities is characterized as Blended Learning (BL). It emerges as a contemporary response to the challenges posed by the current educational reform and enhancement of the educational process.

Blended Learning is an educational paradigm that integrates traditional and innovative teaching methodologies. Under this approach, students can engage in in-person classes while concurrently harnessing the vast potential of ICTs via personal computers, mobile devices, and other information processing tools. (PIVNEVA *et al.*, 2023).

Currently, BL stands as a dynamically evolving teaching method, taking a prominent position in educational process across diverse nations worldwide (DANGNGUYEN, 2022). The adoption of BL provides to the modern educator boundless opportunities when teaching a foreign language to students from non-linguistic backgrounds. This method needs a combination of live communication alongside online activities such as reading, video consumption, visual word memorization, and incorporating games and interactive elements for more effective retention of educational content (YAROSLAVOVA; KOLEGOVA; STAVTSEVA, 2020).

## Literature review

In the early 2000s, the literature offered several definitions of BL, including:

1) BL combines traditional live learning with web technologies such as virtual classroom, self-guided training, collaborative education, and multimedia elements for video, audio, and text streaming to achieve educational goals (KRAVCHENKO *et al.*, 2021);

2) BL integrates diverse pedagogical approaches, including constructivism, behaviorism, and cognitivism, to optimize educational outcomes (HARIADI *et al.*, 2022);

3) BL combines technical training tools with face-to-face instruction under the guidance of a teacher (MEDESHOVA *et al.*, 2022);

4) BL harmoniously blends the learning process with the performance of real-world professional tasks, creating a symbiotic relationship between learning and work (YAKHAYEVA; MUSKHALOVA, 2022).

According to F. de Brito Lima, S. L. Lautert, and A. S. Gomes (2021), the learning process can be categorized based on participant interaction and the delivery of educational content in four distinct modes: traditional learning (0% reliance on distance technologies), learning enhanced by distance technologies (up to 30% reliance), BL (incorporating up to 80% of distance learning technologies), and fully online learning.

A review of scholarly literature publications on this subject reveals several standard definitions of BL, such as BL being considered a methodology that combines traditional face-to-face learning with some aspects of distance learning (ONG *et al.*, 2022); BL as a fusion of conventional formal learning tools, such as classroom instruction and theoretical material with informal elements like e-mail discussions and internet-based conferences (CHEN; TAN; LEI, 2022), and also BL as a purposeful process of acquiring knowledge, skills, and abilities in a learning environment that integrates classroom and extracurricular educational activities, being characterized by mutual complementation of traditional, electronic, online, and mobile learning technologies (SOKOLOVSKAYA *et al.*, 2020).

Considering that, it is clear that experts view Blended Learning as a fusion between technology and traditional classroom teaching, characterized by a flexible approach to education. This approach emphasizes the benefits of online training and task monitoring while incorporating other strategies to improve students' results and reduce tuition costs (TOLMACHEV *et al.*, 2022). It is further defined as a structured curriculum where students engage in at least partial electronic and online learning. Currently, it involves control over the

timing, progress, and pace of learning. It also employs a variety of modalities to provide a holistic and integrated learning experience (RAMAZANOVA *et al.*, 2022).

English educators are interested in BL, particularly concerning the level of engagement and course structure. Here, we aim to synthesize the BL models identified by researchers, which are distinguished by the predominant emphasis on one of the three core components of BL: 1) direct interaction among participants in the educational process in the traditional classroom format; 2) self-guided learning; 3) interactive learning facilitated by ICT and online resources (HE; SINGH; EBRAHIM, 2022; TOGAIBAYEVA *et al.*, 2022; TONG; UYEN; NGAN, 2022).

The Rotation Model involves a dynamic distribution of study time between classroom sessions led by a teacher and learning interactions facilitated through ICT. This model is based on the rotational principle, where students work in groups according to a predefined schedule and move from one station to another. One of these stations encompasses online learning, while others entail group activities, written assignments, project work, and individual lessons with a teacher (HE; SINGH; EBRAHIM, 2022). Variants of this model include Station Rotation, In-class Rotation, Individual Rotation, and the Flipped Classroom model. The notable difference of the Flipped Classroom model is that it provides students with primary instructional materials and guidance online, allowing individualized rotation tailored to each student's schedule (HE; SINGH; EBRAHIM, 2022).

The Self-Blend Model offers the opportunity to supplement traditional classroom sessions with additional online courses on specific subjects, accessible through educational internet platforms (TOGAIBAYEVA *et al.*, 2022), while the Flex Model centers on an academic approach primarily based on online learning. In this framework, a significant portion of the course is delivered through e-learning, with the teacher providing remote guidance and support (TOGAIBAYEVA *et al.*, 2022). Finally, the Enriched Virtual Model entails students primarily engaging with the curriculum through e-courses, while teacher consultations can occur in both in-person and online settings (TONG; UYEN; NGAN, 2022).

According to researchers, implementing the Rotation Flipped classroom model is the most pertinent way to introduce English studies in a non-linguistic field. This model incorporates electronic lectures on lexical and grammatical topics and professional issues, with classroom discussions focusing on these topics (TRUSS; ANDERSON, 2023).

Researchers define the Flipped Classroom technology as an innovative teaching methodology that promotes active student learning, structured by the teacher during in-class sessions, focusing on material previously studied at home (GLADILINA *et al.*, 2022), and as



an educational method consisting of two components: interactive group sessions in the classroom and individual training outside the school using computer technology. The critical aspect is the incorporation, an essential element of which is the use of cutting-edge educational technologies and the creation of an electronic educational environment.

The flipped classroom is also considered an innovative pedagogical model for organizing learning. It empowers students to study new theoretical material before class, allowing a deeper exploration of complex course content during the lessons, active participation in discussing challenging issues, and enhancing practical skills through group activities. It is also seen as a teaching methodology involving students acquiring lecture material through virtual means at home, with classroom time dedicated to practical tasks to reinforce the subject. Lastly, it is also used to organize a course or individual lesson, where students independently learn theoretical material remotely instead of traditional homework and then engage in practical activities in the classroom.

To sum up, flipping the classroom entails transforming the traditional knowledge transfer process, typically conducted within the confines of an educational institution. This departure allows various organizational approaches, including remote and asynchronous. Consequently, extracurricular time is designated for independent study of theoretical material, while in-class time is devoted to practical application.

Adopting this rotational BL model contributes to the heightened efficacy of English classes. It allows the teacher to implement innovative methods and enables students to have a more comprehensive understanding of the course content through engagement with electronic resources within the online course.

Therefore, this paper aims to investigate the intricacies of flipped classroom technology and assess its efficacy in the instruction of professional English at a college or university level.

## **Methodology**

In pursuit of our research objectives, we employed a range of both general scientific and specialized methods. Remarkably, this incorporates a comprehensive review of psychological, pedagogical, scientific, and methodological literature and the implementation of pedagogical experiments.

The central method employed in our study was the pedagogical experiment. To integrate the flipped classroom technology into the university's educational process, we established an academic module on the Moodle remote platform, designed to aid independent work at home. This model was implemented over one semester, specifically during the spring semester of the 2020-2021 academic year, involving the active participation of 56 students enrolled in an educational bachelor's degree program.

Before starting the experiment, students were required to complete an online test to assess their existing knowledge of conversational and grammatical topics covered during the preceding fall semester of the 2021-2022 academic year. Next, the students were divided into the control group (CG) and the experimental group (EG), each comprising 28 students. Both groups were equivalent in terms of their proficiency in professional English.

In light of the previously mentioned considerations, the educational activities undertaken by students during their study of “Professional English” were organized into two main components: extracurricular and in-class work.

The first component entailed independent study of the material provided by the instructor, including content from textbooks, reference materials, audio and video resources, online and written assignments, preparation of presentations, dialogues, role-playing games, and participation in blogging, among other activities. The second component, in-class work, included various interactive activities such as conducting student surveys through tests, questions, and discussions, students' presentations with subsequent group discussions, collaborative work in pairs and small groups, debates, solving practical problems, and performing research tasks.

Upon the completion of the experiment, a final lesson was conducted to evaluate the student's academic progress throughout the semester and to gain insight into the implementation of flipped classroom technology within the context of the “Professional English” course.

## Results and Discussion

Table 1 displays the educational metrics of students in both the EG and CG prior to and following the pedagogical experiment.

**Table 1** – Comparative analysis of English proficiency levels

English proficiency level	Prior to the beginning of the pedagogical experiment				After the beginning of the pedagogical experiment			
	CG		EG		CG		EG	
	number	%	number	%	number	%	number	%
Low	4	14.29	4	14.29	2	7.14	-	-
Average	6	21.43	4	14.29	4	14.29	-	-
Sufficient	16	57.14	18	64.29	14	50	18	64.29
High	2	7.14	2	7.14	8	28.57	10	35.71

Source: Compiled by the authors.

Based on the study's findings, it was observed that in the CG before the experiment, only two students (7.14%) had a high proficiency level, while 16 (57.14%) had a sufficient level, six (21.43%) had an average level, and four (14.29%) had a low level. Following the pedagogical experiment, there was a noticeable improvement in students' English proficiency levels, with eight students (28.57%) reaching a high level, 14 (50%) maintaining a sufficient level, four (14.29%) maintaining an average level, and only two students (7.14%) retaining a low level.

In the EG, before the pedagogical experiment, a similar distribution was observed, with two students (7.14%) at a high level of English proficiency, 18 (64.29%) at a sufficient level, four (14.29%) with an average level, and an additional four (14.29%) at a low level. However, significant progress was noted after the experiment, with ten students (35.71%) attaining a high level and 18 (64.29%) maintaining a sufficient level. Notably, no students had low or average proficiency levels in the EG after the experiment.

These results confirmed the flipped classroom technology's effectiveness within an educational framework for teaching the “Professional English” course. Throughout the pedagogical experiment conducted using the Moodle platform, students, under the guidance of a teacher, independently engaged with educational materials presented in various formats (text, hypertext, graphics, animations). They actively participated in online forum discussions, completed assigned learning tasks, composed test papers, and had examinations.

Moreover, Moodle provided access to English-language resources essential for acquiring professionally oriented vocabulary, offering students new language learning opportunities. As a result, future specialists could access and review course materials online,



evaluate their knowledge through tests, and explore additional resources aligned with the course topics.

Flipped classroom technology has consistently demonstrated its effectiveness in various studies. For instance, Gasparian *et al.* (2022) have shown that flipped classroom technology teaching English can be highly effective for facilitating discussions, debates, and presentations. Moreover, it proves to be valuable during interactions or monologues when responding to posed questions and independently formulating questions regarding the covered material (SOKOLOVSKAYA *et al.*, 2020). In addition, researchers (TOLMACHEV *et al.*, 2022) have emphasized the utility of videos, podcasts, e-books, articles, and more.

This technology can be applied effectively in exploring specific conversational topics with professional relevance and acquiring new professional vocabulary through examining professional texts, films on relevant subjects, and other resources.

For implementing flipped classroom technology for English instruction, it is proposed, as suggested by Togaibayeva *et al.* (2022), the following distribution of educational activities: 1) extracurricular work, 2) in-class activities, 3) post-classroom activities. The latter includes complex practical tasks to reinforce the covered topics and the completion of creative jobs, including educational and research assignments.

We align with the viewpoint of Ramazanova *et al.* (2022), emphasizing the importance of integrating pre-recorded videos with other classroom activities to ensure practical training. Furthermore, one of the distinct advantages of flipped classroom technology lies in its seamless integration with various pedagogical methodologies. For instance, researchers such as Yaroslavova; Kolegova and Stavtseva (2020) advocate for the fusion of flipped classroom technology with specialized English teaching cases designed for non-linguistic field students.

In summary, the flipped classroom technology, as a BL model, represents a shift away from the conventional classroom-centric approach to a modern, learner-centric, and innovative form of education. Importantly, this technology transcends the typical rotation of classroom and extracurricular (independent) work, empowering teachers to actively engage in the student's knowledge assimilation process. The significance of employing flipped classroom technology became especially evident during the period of distance learning prompted by the COVID-19 pandemic.

## **Final considerations**

In conclusion, our study highlights several key points. Implementing BL for professional English education enhances the quality of educational services and expands the learning opportunities available to students. It fosters interaction between teachers and students in remote settings and through in-person encounters, incorporating various teaching methods and tools. This approach intensifies the learning process, aiming to cultivate students' positive motivation, independent cognitive activity, and self-regulation skills.

Furthermore, BL has proven to be highly effective due to its incorporation of classroom sessions and regular independent work using modern ICT. This type of training stimulates students' analytical abilities and nurtures critical thinking. Integrating interactive methods, communication tools, and modern tools within BL maximizes the potential of educational content, ultimately molding future specialists with the essential competencies capable of handling a diverse array of professional tasks.

The outcomes of our pedagogical experiment affirm the effectiveness of the flipped classroom technology as a subset of BL within the university's educational framework, particularly for the “Professional English” course.

In light of these findings, the integration of flipped classroom technology into teaching “Professional English” emerges as an effective tool for university educators to ensure the delivery of high-quality educational services. This method offers tangible opportunities for enhancing students' professional training and optimizing teacher and student personal time utilization.

Moreover, it aligns with the broader educational goal of informatization, aiming to improve overall quality. The combination of independent online learning and classroom teaching under the guidance of a teacher contributes to a personalized learning experience tailored to the individual needs of each student, regardless of the level of his initial training.

We envision future research endeavors exploring even more effective ways and conditions for implementing the flipped classroom model to provide valuable insights into the training of competitive future specialists.

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