The use of innovative technologies for teaching the humanities

Використання інноваційних технологій при викладанні гуманітарних дисциплін

Written by:
Tatyana Valentieva[1]
https://orcid.org/0000-0002-5697-8281
Antonina Pak[2]
https://orcid.org/0000-0001-9298-3697
Olha Lebid[3]
https://orcid.org/0000-0001-6861-105X
Nataliia Volkova[4]
https://orcid.org/0000-0003-1258-7251
Maryna Karpova[5]
https://orcid.org/0000-0002-7694-0379

Abstract

The study of the flipped classroom methods is important for improving the quality of education and the effectiveness of learning in the context of modern technological changes and growing interest in distance education. The aim of this study was to determine the effectiveness of the use of the flipped classroom model in learning a foreign language for professional purposes. Testing was used to diagnose the effectiveness of assimilation of educational material, which included various types of tasks: multiple response, error correction, matching, fill in the blanks, open-ended tasks, completed responses. The total number of tasks is 25 (5 for each type) and questionnaires to determine the level of satisfaction with educational video materials and online learning. Tests and questionnaires were pre-validated according to the research objectives. The obtained results ($\chi^{2emp} = 8.095 > \chi^2\ 0.05 = 7.815$) gave grounds to conclude that

Анотація

В контексті сучасних технологічних змін та росту інтересу до дистанційної освіти, дослідження та вдосконалення методів перевернутого класу стають важливими завданнями для підвищення якості освіти та ефективності навчання. Це дослідження мало на меті визначити, наскільки використання моделі перевернутий клас є ефективним у процесі вивчення іноземної мови за професійним спрямуванням. Для діагностики ефективності засвоєння навчального матеріалу було застосовано тестування, яке включало різні типи завдань: вибір кількох відповідей, виправлення помилок, пошук відповідностей, заповнення пропусків, завдання з відкритою відповіддю, закінчені відповіді. Загальна кількість завдань – 25 (по 5 для кожного типу) та анкетування з метою визначення рівня задоволеності навчальними відео-матеріалами та онлайн навчанням. Тести та анкети були

[1] Candidate of Pedagogical Sciences, Senior Lecturer at the Department of Preschool and Primary Education, Faculty of Preschool, Primary Education and Arts, T.H. Shevchenko National University "Chernihiv Colehium", Chernihiv, Ukraine. WoS Researcher ID: GPW-7211-2022

[2] Ph.D in Korean Language Education, Senior Lecturer, The Department of Western and Eastern Languages and Their Teaching Methods, the Faculty of Foreign Languages, South Ukrainian National Pedagogical University named after K.D. Ushinsky, Odesa, Ukraine. WoS Researcher ID: JMO-6222-2023

[3] Doctor of Pedagogical Sciences, Professor, Department of Innovative Technologies in Pedagogy, Psychology and Social Work, Alfred Nobel University, Dnipro, Ukraine. WoS Researcher ID: AAG-3865-2020

[4] Doctor of Pedagogical Sciences, Professor, Head of the Department of Innovative Technologies in Pedagogy, Psychology and Social Work, Alfred Nobel University, Dnipro, Ukraine. WoS Researcher ID: AAG-4207-2020

[5] Senior Lecturer, Department of Innovative Technologies in Pedagogy, Psychology and Social Work, Alfred Nobel University, Dnipro, Ukraine. WoS Researcher ID: KFQ-1356-2024

the blended learning model of flipped classroom in the development of foreign language competence is more effective than traditional learning. The experiment showed that this format helps students implement an individual learning trajectory, which contributes to improving academic performance. It was determined that the effectiveness of using this model depends on the quality of video materials and students' ability to organize their own independent work. The prospects of further research фку the study of the influence of the application of the flipped classroom model on the students' learning motivation.

Keywords: innovative learning technologies, blended learning, distance learning, flipped classroom, the Humanities.

попередньо валідизовані відповідно до цілей дослідження. Отримані результати ($\chi^{2\text{емп}}$ = 8,095 > χ^2 0,05 = 7,815) дали змогу зробити висновок про те, що змішана модель навчання перевернутий клас при формуванні іншомовної компетенції, має перевагу у своїй ефективності перед традиційним навчанням. Як показав експеримент, цей формат допомагає студентам реалізовувати індивідуальну траєкторію навчання, що сприяє поліпшенню навчальних показників. Результати дали змогу визначити, що ефективність викоритання технології залежить від якості відео матеріалів та здатності студентів до організації власної самостійної роботи. Перспективою подальших розвідок є дослідження впливу застосування моделі перевернутого класу на мотивацію студентів до навчання.

Ключові слова: інноваційні технології навчання, змішане навчання, дистанційне навчання, технологія перевернутий клас, гуманітарна підготовка.

Introduction

The rapid growth of information flows requires the abandonment of reproductive learning based on knowledge transfer. The main goal of education is to develop students' self-learning and goal-setting ability, the ability to learn independently and achieve set goals, to creatively use existing knowledge and skills to solve new non-trivial both professional and personal tasks. The transition to a mixed form of education in connection with the Covid-19 pandemic and the invasion of the Russian Federation on the territory of Ukraine required updating methods of working in remote mode, the search for the most effective models of the organization of education.

So, there is a need to shift to learning models that shape and develop students' ability and readiness for lifelong learning (Gok et al., 2023).

Blended learning is currently widespread. This is a pedagogical approach that combines elements of traditional education and education with the use of information and communication technologies. There are several generally accepted options for implementing blended learning. For example, Staker and Horn (2012) proposed a classification of blended learning based on the role of technology and the time students spend in different learning environments. These are the Lab Rotation Model, the Rotation Model, the Flex Model, the

A La Carte Model, and the Enriched Virtual Model.

The term "flipped classroom" was introduced into educational practice in the early 2000's and arose as a reaction to the growing availability and use of video materials and online resources in education. The concept of flipped classroom became popular thanks to the researchers and educators Bergmann and Sams (2012), who actively developed and popularized this pedagogical approach.

The idea behind the flipped classroom is to change the traditional learning model. The flipped classroom approach aims for more interactive and engaged learning, where students actively interact with the material and with each other, and the teacher acts as a facilitator. This approach became popular in education and made it possible to revise traditional teaching methods.

However, the issue of empirical research of the effectiveness of this method remains open despite significant studies of the effectiveness of this type of blended learning, as well as the advantages and disadvantages of the flipped classroom model in academic discourse.

Therefore, the aim of this research is to study the effectiveness of using the flipped classroom model in learning a foreign language.

The aim involved the fulfilment of the following research objectives:

- study the effectiveness of the learning of educational material after the implementation of the flipped classroom model and compare it with the traditional method;
- determine the level of students' satisfaction with the learning process based on the flipped classroom model and support in online learning;
- evaluate students' satisfaction with educational video materials who studied with the use of the flipped classroom model.

In the next section, an analysis of the scientific sources of the identified problem is carried out. The "Methodology" section describes the diagnostic methods used, the sample, the research base, and the ethical criteria for its conduct. The "Results" section presents the obtained static data of the study. In the "Discussion" section, the results are interpreted and compared with other studies. The conclusions summarize the results and define the prospects for further research.

The conducted research provides grounds for wider implementation of the modified learning model "inverted classroom" in the educational process of educational institutions. The results that were obtained contribute to updating the teaching methodology of humanitarian disciplines in a mixed format.

Literature review

The analysis of recent publications made it possible to single out a number of English-language terms associated with the concept of mixed learning: blended learning, hybrid learning, flipped learning.

Blended or hybrid learning should not be confused with flipped classroom. In a blended learning, the teacher replaces part of the classroom sessions with remote ones, but the method of conducting the lesson and the distribution of didactic roles may remain unchanged (Yajie & Jumaat, 2023). Flipped classroom is only one of the models of the implementation of blended learning, in which classroom sessions focus on exercises, laboratory, and practical research, while new material is learnt offline with the help of online technologies and the use of opportunities of the digital educational environment (Horban et al., 2022).

According to Valizadeh and Soltanpour (2020), the flipped model of blended learning is an approach based on active learning.

The flipped classroom can be more beneficial compared to the traditional methods that are mostly used in higher education (Vitta & Al-Hoorie, 2023). However, it will not be more useful in other educational stages where traditional approaches are not usually used, for example, in primary education (Galindo-Dominguez, 2021; Tretiak et al., 2021).

Therefore, using this model is most effective in higher education, where most of the information is learned by students during independent work. Jdaitawi (2019) notes that the flipped classroom strategy can be used to promote self-regulated learning and strengthen students' social connections.

Turan and Akdag-Cimen (2020) note that the flipped classroom method in learning English for professional purposes has gained popularity among researchers after 2014, and the number of studies in this field has increased rapidly in recent years.

A literature review on the effectiveness of the introduction of blended learning into the educational process of foreign language teaching (Al-Harbi & Alshumaimeri, 2016; Afzali & Izadpanah, 2021) gave grounds to identify the main pros and cons of this methodology. In the last 15 years, blended learning has become more innovative, modern, and productive compared to classroom education and pure online learning (Konotop et al., 2023; Tang et al., 2023).

Students got the opportunity to study where, how and how much they want. Today, universities around the world offer 3 learning options: online, classroom, or blended. And as experimental research in this field shows, the latter type takes the lead (Halasa et al., 2020). Surveys confirm the students' desire to study in a mixed format, which makes it possible to combine studies with their interests, work, obtaining additional education, and also brings a number of financial benefits (Košir et al., 2022). An enhanced motivation and autonomy is also noted among the positive sides, which is especially important when learning foreign languages, along with the development of critical thinking (Colomo-Magaña et al., 2020; Laura-De La Cruz et al., 2022). According to Strelan et al. (2020), a major positive factor influencing the effect of the flipped classroom is the opportunity it provides for structured active learning and problem

solving. The results of a study by Mandasari & Wahyudin (2021) showed that the flipped classroom learning model has proven itself well in teaching grammar.

Among the disadvantages, many methodologists point to the fact that this format of learning is not suitable for all students because of the low level of competent planning and time allocation skills, which is characteristic of junior students (Velde et al., 2020).

In addition, the disadvantages include an increased load on the teacher caused by the need for a detailed development of the pedagogical design of blended learning: the selection of content, teaching methods, forms of control, the distribution of activities in classroom sessions and in the electronic educational environment, as well as taking into account factors that contribute to the formation of sustainable motivation in students (Kawinkoonlasate, 2019). The main challenges of this method common to all subjects relate to the length of the video/digital materials and the time required for teachers to prepare the learning materials and for students to learn them (Al-Samarraie et al., 2020), and that teachers and students should be technologically literate or ICT literate (Ngo & Yunus, 2021).

Thus, blended learning has significant potential to improve the quality of education, but its success depends on careful planning and preparation. In the context of foreign language teaching, students get more flexibility regarding the place and time of learning. Blended learning promotes the development of critical thinking and structured active learning. However, some of the challenges of blended learning include the need for teachers to plan and develop pedagogical designs and the need for a high level of technological literacy on the part of both teachers and students. Elementary students may find it difficult to learn a foreign language in this format due to their low level of planning and time management skills.

Methodology

Research Design

The research was conducted in several stages: preparatory, implementation stage, and the stage of analysis of the obtained results.

At the preparatory stage, we studied the theoretical prerequisites for creating a blended learning model. The following factors were taken into account when creating the pedagogical

design: the readiness of the educational institution to implement blended learning; goals of introducing the course; the possibility of students to work remotely (availability of a computer, high-speed Internet); the number of academic hours that will be realized in the online format; days and number of hours for classroom sessions; selection of educational platforms to be used for online assignments.

The implementation stage (January 2023 to June 2023) involved conducting a pedagogical experiment at the experimental institutions. The experimental research was carried out during the study of the academic subject English for Professional Purposes. The educational load for the classes in the experimental group based on the flipped classroom model (48 academic hours of the semester) was divided into two components: 16 hours of online classes and 32 hours of classroom (offline), of which 16 hours are contact work with the teacher and 16 hours – in groups on projects.

The following methodical equipment was used for the implementation of the flipped classroom: a textbook (Hughes, J., Naunton, J. Business Result. Intermediate Student's Book with Online practice); computer workbook (Business Result Intermediate Interactive Workbook); the educational platform Microsoft Teams, which hosted educational videos for independent study of theoretical material; Google Forms for testing; BBC Learning English site; Google Slides for online project tasks.

The stage of analysis of the obtained results involved collection, processing of research data, and their interpretation.

Sample

The following universities were the experimental base of the study: Shevchenko National University "Chernihiv Colehium", South Ukrainian National Pedagogical University named after K. D. Ushinsky.

The experimental study involved a total of 81 students of the second year of study. During the research, 2 groups were selected: experimental (n = 40) and control (n = 41). The participants of the experimental group (EG) were taught using the flipped classroom model. Participants of the control group (CG) were taught using traditional educational methods.

Methods

Testing was used to diagnose the effectiveness of learning the educational material, which included the following types of tasks: choosing multiple responses (Multiple Response), correcting errors, finding correspondences, filling in the blanks (Fill in the Blanks), tasks with open-ended answers (Open-ended). The total number of tasks is 25 (5 for each type). The maximum possible number of points for the test is 25. Evaluation criteria: "excellent" — the number of correct answers is 25-22; "good" — the number of correct answers is 21-18; "satisfactory" — the number of correct answers is 17-13; "unsatisfactory" — the number of correct answers is ≤ 12.

A questionnaire consisting of 6 questions with multiple answers was developed in order to identify advantages in the use of information technologies in educational activities. The survey was conducted using Google Forms.

A survey of EG participants was conducted in order to determine the level of satisfaction with educational video materials. Satisfaction with the educational course was evaluated using a numerical scale from 1 to 5.

Instruments

The non-parametric Pearson's chi-squared test was used to compare the frequencies of quality indicators in independent groups. The value of the $\chi2$ criterion was compared with the critical values $(r - 1) \times (c - 1)$ of the number of degrees of freedom. If the empirical value of the $\chi2$ criterion exceeded the critical one, it was concluded that there is a statistical relationship between the risk factor being studied and the result at the appropriate level of significance. The critical level of statistical significance when testing the null hypothesis was taken as equal to 0.05. Two-sided variants of the criteria were used in all cases. The data were processed using STATISTICA 13.3 developed by StatSoft.Inc and Microsoft Office Excel 2010.

Ethical Criteria

The respondents' participation in the study was voluntary, the principles of protecting the rights of research participants, ensuring their safety and data privacy were observed in the process of data collection. The research was based on the principles of impartiality and objectivity.

Results

Before and after the experiment, the participants were asked to answer the questions of the questionnaires developed by the authors of the study (Table 1).

Table 1.
The results of a student survey regarding the experience of using online learning and support in the flipped classroom format

Item No.	Questions of the questionnaire	Answers	
		Before the experiment	After the experiment
	To communicate with the teacher on educational matters in extracurricular hours, you…		
1.	Use a personal account in a social network	83%	77%
	Contact the teacher personally at the educational institution	31%	20%
	Call the teacher	25%	13%
	Use messengers Viber, WhatsApp, etc.	13%	35%
	Use e-mail	13%	25%
	What kind of support would you like to receive during the online course?		
2.	Group conversation in social networks	33%	30%
	Teacher's consultation in messengers/social networks	58%	70%
	Discussion on the course forum	46%	65%
	Face-to-face consultation with the teacher	83%	55%
	Mark the statements that are correct about you.		
3.	I discuss educational issues with my friends, including in the conversations of our study group	85%	88%
	I ask questions about independent work to the teacher	88%	87%
	What kind of teacher's help do you need when performing independent work?		
4.	Explanation of the task	73%	70%
	Consulting and adjustments	60%	75%
	Regular control of task completion	13%	20%

	Verification and analysis of results	44%	60%
	Mark the statements that are correct about you.		
	I work in the distance learning system of the institute in extracurricular hours (not during classes)	88%	90%
	I am doing additional work on the subjects (not at the teacher's task)	44%	56%
5.	I'm engaged in independent learning on the subjects being studied at the external online courses	8%	15%
	I would agree to take a short-term (up to 4 weeks) online course instead of preparing a thematic presentation	85%	75%
	I think that taking an online course is easier than studying offline	90%	65%
	I get into work faster if the time to complete the task is limited	48%	40%
	When choosing an online course, I would prefer a course without time limits (deadlines)	56%	54%
	Doing independent work is a challenge for me….		
	as I don't understand the purpose of the work	60%	63%
	as I don't understand the task	75%	77%
6.	as I don't know how to complete the task	58%	50%
	as I cannot determine for myself whether the completed task is complete and correct	29%	35%
	as it is difficult for me to allocate time correctly	13%	55%

After the implementation of the flipped classroom model, the number of students who use personal accounts in social networks to communicate with the teacher has significantly decreased (from 83% to 77%). The number of students who contact the teacher personally at the institute has also decreased (from 31% to 20%). Instead, more students started using messengers like Viber, WhatsApp, etc. (from 13% to 35%).

After the implementation of the flipped classroom model, the popularity of consultations in messengers/social networks increased from 58% to 70%, and discussions on the course forum — from 46% to 65%. Group chat on social networks remained a popular support option. There is also a slight increase in the number of students who discuss academic issues with their peers (from 85% to 88%). At the same time, students who ask questions to the teacher remained at approximately the same level (88% to and 87%).

After the implementation of the flipped classroom model, the number of students in need of counselling and correction (from 60% to 75%), as well as verification and analysis of results (from 44% to 60%), increased. Students' answers to the question about the difficulty of independent work remained at almost the same level, but after the implementation of the flipped classroom model, it became more difficult for students to correctly allocate time (from 13% to 55%).

The general trend is that students are more active in using messengers and social networks to communicate with the teacher and receive support during the online course. The learners' activity also increased in their requests for teacher support during independent work.

Table 2 presents the results of the comparison of the groups among themselves according to the Input Testing and Final Testing indicators.

Table 2.
Comparison of independent groups according to the Input Testing and Final Testing indicators

Indicator		Experimental group	Control group	Statistical significance of differences	
				χ^2	P
ENTRY TESTING	excellent	8 (20%)	7 (17%)	0.418	0.937
	good	12 (30%)	11 (27%)		
	satisfactory	14 (35%)	15 (37%)		
	unsatisfactory	6 (15%)	8(19%)		
FINAL TESTING	excellent	16 (40%)	8 (20%)	8.095	0.045
	good	14 (35%)	12 (29%)		
	satisfactory	10 (25%)	18 (44%)		
	unsatisfactory	0 (0%)	3(7%)		

Note: χ^2 – chi-squared test, p – statistical significance of differences.

Statistical analysis of the data for the Input Testing indicator showed that with the number of degrees of freedom k = 3, $\chi^2 = 0.418$. The critical value of χ^2 at the significance level of p < 0.05 is 7.815. The relationship between the factor and result features is not statistically significant, the level of significance is p = 0.937 > 0.05. So, no statistically significant differences between the frequency distributions of the two groups were found at the stage of input testing.

Statistical analysis of the data for the Final Testing showed that with k = 3, the value of χ^2 is 8.095, which is greater than the critical value of

$\chi^2 = 7.815$ at the significance level of p = 0.05. The relationship between the factor and the resulting features is statistically significant, the level of significance is p = 0.045 < 0.05. Therefore, the results obtained after the pedagogical influence give grounds to conclude that the method used in the experimental group has an advantage in its effectiveness.

We also conducted a survey on the students' satisfaction with educational video materials who studied using the flipped classroom model (Table 3).

Table 3.
The results of students' satisfaction with educational video materials who studied using the flipped classroom model

Item No.	Quality criteria of educational video materials	$m\pm S$ (Group1)	$m\pm S$ (Group 2)
1.	Clarity and accessibility	4.9±0.12	4.7±0.37
2.	Consistency and structure of the educational material	4.7±0.23	4.75±0.4
3.	Practical focus	4.8±0.25	4.75±0.23
4.	Image and sound quality	4.77±0.36	4.5±0.5
5.	Duration and tempo	4.80±0.32	4.7±0.43
6.	Relevance of questions and tasks	4.85±0.25	4.41±0.54
7.	Availability on different devices	4.8±0.23	4.83±0.27
8.	The ratio of time spent and knowledge gained	5.0±0.00	4.3±0.67
9.	General impression	4.85±0.23	4.7±0.25

Note: Here m – mathematical expectation; S – standard deviation.

Therefore, students who studied under the flipped classroom model showed a high level of satisfaction with educational video materials. Most aspects such as clarity, accessibility, consistency and structure, practical orientation, and availability on different devices received high marks. However, the image and sound quality may require improvement, recording such videos requires special technical equipment. There is also a difference in estimates of the ratio of time spent and knowledge gained, which also needs to be refined.

Discussion

Despite the fact that blended learning appeared in the early 2000's, its use in teaching foreign languages in general and business English to students of secondary vocational education in particular does not have a long tradition. Moreover, the issue of the effectiveness of the application of this educational model remains open (Hotle & Garrow, 2016).

The conducted experiment shows that unlike the traditional teaching method, where the teacher presents all the content and students often

become passive listeners, the implementation of flipped learning contributes to the improvement of students' language skills, transforming them into active agents, which is confirmed by previous studies (Hotle & Garrow, 2016; Afrilyasanti et al., 2016). At the same time, the practice has shown that it is possible to avoid increasing the teacher's load with the help of preliminary preparation for the introduction of a new teaching format (Kawinkoonlasate, 2019).

The study confirms the conclusions of a number of researchers (Phoeun & Sengsri, 2021; Abdullah et al., 2019; Safiyeh & Farrah, 2020) about the validity of the flipped classroom model in mixed education of students of non-linguistic majors. By the end of the semester, the EG students showed higher results of the lexico-grammatical skills on the studied communicative topics provided by the programme of the subject Foreign Language in Business Communication compared to the CG, who were taught in a traditional way, which allowed us to confirm our hypothesis about the effectiveness of the selected training model. This is also confirmed by the research of Al-Naabi (2020).

The most likely reasons for this result include students' interest in a new learning format: modern youth perceive information technologies as an integral attribute of their lives, so tasks performed using Microsoft Teams or YouTube aroused their genuine interest (Košir et al., 2022). Besides, new grammatical material was explained to the EG students online: special educational videos were posted in Microsoft Teams, which they could watch them at any convenient time and an unlimited number of times. This format gave them an advantage over the students of the control group, who got acquainted with the new grammar material in the classroom once, and if they were not in class, they had to study the questions on their own, and helped to easily and quickly repeat any topic. The ability to work in project teams remotely from home saved time that could be spent directly on the project rather than commuting, and had a positive effect on the performance of such tasks (Di Marco et al., 2020).

It is also worth noting that by the end of the semester, the level of linguistic competence has increased in both the EG and CG. This, of course, shows that traditional methods of teaching a foreign language have not lost their significance, and contact work with the teacher is necessary for a foreign language, but the introduction of modern technologies of blended learning, in particular the flipped classroom model, allows improving the educational process (Horban et al., 2022).

The main limiting factors of the study are that the experiment was conducted during one semester, and only full-time students were involved in the diagnosis.

The prospects for further research include the application of a blended learning model for students of the 1st-2nd year and the comparison of the obtained results with the results of the senior students' performance in connection with the lack of an unequivocal opinion regarding the age restrictions of the implementation of this technology in the educational process. A study of the flipped classroom model's impact on students' learning motivation is also promising.

Conclusions

The flipped classroom model has become a relevant and vividly discussed topic in the current educational environment, as it modernizes the traditional approach to learning. This model gives students more control over their learning, promotes active involvement in the learning process, and can improve learning. The study of the flipped classroom model is important for the development of innovative teaching methods and optimization of the educational process.

Despite the importance of using blended learning and online learning in general, educational programmes face many challenges related to the application and implementation of a blended learning model in the curriculum. These problems can be technical (the students' and teachers' ability to successfully use technology) and/or organizational (adaptation of the educational programme, change of curricula). It is necessary to carefully plan the ratio of online and offline lessons, the choice of teaching methods and forms of control to achieve the desired results of English language learning, as well as to record higher quality lecture materials.

This study found that flipped classroom blended learning model helps students to realize an individualized learning trajectory that contributes to improved academic performance.

Bibliographic references

Abdullah, M. Y., Hussin, S., & Ismail, K. (2019). Implementation of flipped classroom model and its effectiveness on English speaking performance. *International Journal of Emerging Technologies in Learning (Online), 14*(9), 130-147. https://doi.org/10.3991/ijet.v14i09.10348

Afrilyasanti, R., Cahyono, B., & Astuti, U. P. (2016). Effect of flipped classroom model on Indonesian EFL students' writing ability across and individual differences in learning. *International Journal of English Language and Linguistics Research, 4*, 65-81. https://acortar.link/U6FAu9

Afzali, Z., & Izadpanah, S. (2021). The effect of the flipped classroom model on Iranian English foreign language learners: Engagement and motivation in English language grammar. *Cogent Education, 8*(1), 1870801. https://doi.org/10.1080/2331186X.2020.1870801

Al-Harbi, S. S., & Alshumaimeri, Y. A. (2016). The flipped classroom impact in grammar class on EFL Saudi secondary school students' performances and attitudes. *English Language Teaching, 9*(10), 60-80. http://dx.doi.org/10.5539/elt.v9n10p60

Al-Naabi, I. S. (2020). Is it worth flipping? The impact of flipped classroom on EFL students' grammar. *English Language Teaching, 13*(6), 64-75. https://doi.org/10.5539/elt.v13n6p64

Al-Samarraie, H., Shamsuddin, A., & Alzahrani, A. I. (2020). A flipped classroom model in higher education: A review of the evidence across disciplines. *Educational Technology Research and Development, 68*, 1017-1051. https://doi.org/10.1007/s11423-019-09718-8

Bergmann, J., & Sams, A. (2012). *Flip Your Classroom (Reach Every Student in Every Student in Every Class Every Day).* Washington DC: Eugene Oregon.

Colomo-Magaña, E., Soto-Varela, R., Ruiz-Palmero, J., & Gómez-García, M. (2020). University students' perception of the usefulness of the flipped classroom methodology. *Education Sciences, 10*(10), 275. https://doi.org/10.3390/educsci10100275

Di Marco, L., Breton, J., Martin, D. K., Morand, P., & Gillois, P. (2020). Freedom of master's degree students to study in health curricula: Switching to optimized blended learning as a solution! *Yearbook of Medical Informatics, 29*(1), 247-252. https://doi.org/10.1055/s-0040-1701978

Galindo-Dominguez, H. (2021). Flipped classroom in the educational system. *Educational Technology & Society, 24*(3), 44-60. https://www.jstor.org/stable/27032855

Gok, D., Bozoglan, H., & Bozoglan, B. (2023). Effects of online flipped classroom on foreign language classroom anxiety and reading anxiety. *Computer Assisted Language Learning, 36*(4), 840-860. https://doi.org/10.1080/09588221.2021.1950191

Halasa, S., Abusalim, N., Rayyan, M., Constantino, R. E., Nassar, O., Amre, H., Sharab, M., & Qadri, I. (2020). Comparing student achievement in traditional learning with a combination of blended and flipped learning. *Nursing Open, 7*, 1129-1138. https://doi.org/10.1002/nop2.492

Horban, O., Protsenko, O., Tytarenko, V., Bulvinska, O., Melnychenko, O. (2022). Cultural economics: The role of higher education institution in shaping the value systems. *Scientific Bulletin of National Hirnichoho University,* 1, 128-132. https://doi.org/10.33271/nvngu/2022-1/128

Hotle, S. L., & Garrow, L. A. (2016). Effects of the traditional and flipped classrooms on undergraduate student opinions and success. *Journal of Professional Issues in Engineering Education and Practice, 142*(1), 05015005. https://doi.org/10.1061/(ASCE)EI.1943-5541.0000259

Jdaitawi, M. (2019). The effect of flipped classroom strategy on students learning outcomes. *International Journal of Instruction, 12*(3), 665-680. https://doi.org/10.29333/iji.2019.12340a

Kawinkoonlasate, P. (2019). Integration in flipped classroom technology approach to develop English language skills of Thai EFL learners. *English Language Teaching, 12*(11), 23-34. https://doi.org/10.5539/elt.v12n11p23

Konotop, O., Bykonia, O., Bondar, O., Shevchenko, Y., & Korobeinikova, T. (2023). Effectiveness of generative learning strategies in independent study of English using mobile technologies. *Revista Eduweb, 17*(3), 160-181. https://doi.org/10.46502/issn.1856-7576/2023.17.03.14

Košir, K., Dugonik, Š., Huskić, A., Gračner, J., Kokol, Z., & Krajnc, Ž. (2022). Predictors of perceived teachers' and school counsellors' work stress in the transition period of online education in schools during the COVID-19 pandemic. *Educational Studies, 48*(6), 844-848. https://doi.org/10.1080/03055698.2020.1833840

Laura-De La Cruz, K. M., Roque-Coronel, L. M., Noa-Copaja, S. J., & Rejas-Junes, L. R. (2022). Flipped classroom methodology in English language learning in higher education. In: *International Conference on Information Technology & Systems* (pp. 448-459). Cham: Springer International Publishing.

Mandasari, B., & Wahyudin, A. Y. (2021). Flipped classroom learning model: implementation and its impact on EFL learners' satisfaction on grammar class. *Ethical Lingua: Journal of Language Teaching and Literature, 8*(1), 150-158. https://ethicallingua.org/25409190/article/view/234

Marrero-Sánchez, O., & Vergara-Romero, A. (2023). Competencia digital del estudiante universitario. Una actualización sistemática y bibliográfica. *Amazonia Investiga*, *12*(67), 9-18. https://doi.org/10.34069/AI/2023.67.07.1

Ngo, H. K., & Yunus, M. (2021). Flipped classroom in English language teaching and learning: A systematic literature review. *International Journal of Academic Research in Business and Social Sciences, 11*(3), 185-196. http://dx.doi.org/10.6007/IJARBSS/v11-i3/8622

Phoeun, M., & Sengsri, S. (2021). The effect of a flipped classroom with communicative language teaching approach on

undergraduate students' English speaking ability. *International Journal of Instruction, 14*(3), 1025-1042. https://doi.org/10.29333/iji.2021.14360a

Safiyeh, H. A., & Farrah, M. (2020). Investigating the effectiveness of flipped learning on enhancing students' English language skills. *English Review: Journal of English Education, 9*(1), 193-204. https://doi.org/10.25134/erjee.v9i1.3799

Staker, H., & Horn, M. B. (2012). *Classifying K-12 blended learning.* Innosight Institute. https://files.eric.ed.gov/fulltext/ED535180.pdf

Strelan, P., Osborn, A., & Palmer, E. (2020). The flipped classroom: A meta-analysis of effects on student performance across disciplines and education levels. *Educational Research Review, 30*, 100314. https://doi.org/10.1016/j.edurev.2020.100314

Tang, T., Abuhmaid, A. M., Olaimat, M., Oudat, D. M., Aldhaeebi, M., & Bamanger, E. (2023). Efficiency of flipped classroom with online-based teaching under COVID-19. *Interactive Learning Environments, 31*(2), 1077-1088. https://doi.org/10.1080/10494820.2020.1817761

Tretiak, O. P., Melenets, L. I., Shcherbyna, V. M., Poliakova, O. V., & Kravchuk, L. V. (2021). The role of instilling moral values in primary schoolchildren. *Journal of the University of Zulia, 12*(35), 37-62. https://doi.org/10.46925//rdluz.35.03

Turan, Z., & Akdag-Cimen, B. (2020). Flipped classroom in English language teaching: A systematic review. *Computer Assisted Language Learning, 33*(5-6), 590-606. https://doi.org/10.1080/09588221.2019.1584117

Valizadeh, M., & Soltanpour, F. (2020). The flipped pedagogy: Effects on the grammatical competence and writing skill of basic users of English. *International Journal of Instruction, 13*(3), 761-776. https://doi.org/10.29333/iji.2020.13351a

Velde, R. V., Blignaut-Van Westrhenen, N., Labrie, N. H., & Zweekhorst, M. B. M. (2020). 'The idea is nice… but not for me': First-year students' readiness for large-scale 'flipped lectures' – what (de)motivates them? *Higher Education, 81*, 1157-1175. https://doi.org/10.1007/s10734-020-00604-4

Vitta, J. P., & Al-Hoorie, A. H. (2023). The flipped classroom in second language learning: A meta-analysis. *Language Teaching Research, 27*(5), 1268-1292. https://doi.org/10.1177/1362168820981403

Yajie, C., & Jumaat, N. F. B. (2023). Blended learning design of English language course in higher education: A systematic review. *International Journal of Information and Education Technology, 13*(2), 364-372. https://doi.org/10.18178/ijiet.2023.13.2.1815