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The Flipped Classroom in the Context of Digitization of Educational Space: A Students' Perspective

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Abstract. The COVID-19 pandemic has presented a challenge to educators and administrators around the world, forcing them to find effective methods for distance learning using the best methods and technologies available. The digitization of educational spaces in higher education is one of the key factors that impact learning and teaching processes at the university level in these modern times. An excellent method of reaching these academic goals with online and blended formats is to implement the flipped classroom model. We believe this method holds merit and conducted a study with the aim of evaluating how effective this model is for our General English course students at our university. The focus of the research is from our students' perspectives, and thus, the issues under consideration include: students' general experiences and attitudes towards distance language learning using the flipped classroom, their experiences of using digital tools and resources as a medium for learning, and their perception of how the flipped classroom model has developed their 4C skills (communication, collaboration, creativity, and critical thinking). The article discusses the concept of the flipped classroom with details on the principles of its design, structure, strategies and techniques for a foreign language course. We also explore the categorization of digital tools and resources that can be integrated into the flipped classroom model. In addition, close attention is given to the development of the 4Cs as the main skills of the 21st century. The insights and implications derived from the study are reflected in recommendations that will be helpful for language teachers at the university level.

Keywords: the flipped classroom model, digitization of educational space, digital learning tools, distance language learning, 4C skills.

Research area: pedagogy.

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Технология перевернутого класса в контексте цифровизации образовательного пространства: взгляд студентов

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Аннотация. Пандемия COVID-19 стала вызовом для преподавателей и руководящего состава университетов по всему миру, поскольку возникла острая потребность в поиске эффективных методов и технологий для осуществления образовательного процесса в дистанционном формате. Цифровизация образовательного пространства вузов выступила ключевым процессом, повлиявшим на учебную деятельность в этот период. Данная статья посвящена исследованию состоятельности технологии перевернутого класса для дистанционного изучения дисциплины «Иностранный язык». Здесь обсуждаются принципы разработки занятий в рамках указанной технологии и их структура, приводится классификация цифровых образовательных инструментов и онлайн-ресурсов, которые могут быть интегрированы в модель перевернутого класса. Кроме того, особое внимание уделено потенциалу обсуждаемой технологии для развития таких ключевых навыков XXI века, как 4C (коммуникация, командная работа, креативность и критическое мышление). Исследование выполнено в рамках студентоцентрированного подхода: авторы анализируют данные студенческих анкет об опыте дистанционного изучения иностранного языка с использованием технологии перевернутого класса, предпочтения студентов относительно цифровых инструментов и онлайн-ресурсов как средств обучения, а также восприятие того, насколько модель перевернутого класса способствует развитию навыков 4C. Полученные результаты исследования нашли отражение в методических рекомендациях для преподавателей иностранных языков в вузе.

Ключевые слова: модель перевернутого класса, цифровизация образовательного пространства, цифровые инструменты обучения, дистанционное обучение иностранным языкам, навыки 4C.

Научная специальность: 5.8.1 – общая педагогика, история педагогики и образования.

Introduction

The process of digitization of educational spaces in universities was forcibly accelerated due to the COVID-19 pandemic which had a tremendous impact in the field of higher education on a global scale. When the pandemic hit, in general, universities were not prepared for the challenge of shifting from face-to-face classes to the online format. A huge effort had to be made by institutions and lecturers by the way of pedagogy and technology in order to effectively continue teaching. (Mosquera, Suárez, Chiyón & Alberti, 2021). Higher education was pressured to choose more flexible, active, student-centered and technology-based teaching strategies that mitigate the limitations of traditional transmittal models of education and correspond to the principles of innovative teaching technologies used for distance learning (Gromoglasova, 2018; Kovaleva, 2019). Never before has there been such an urgent need and demand for reforming traditional teaching in higher education. Educators around the world have been searching for effective methods of distance learning. As such, the flipped classroom approach has been widely suggested to support this transition (Nouri, 2016). The methodology of the flipped classroom helps solve many of the inevitable problems we are facing in the transition to online and blended learning. We can safely say that the flipped classroom is an innovative strategy that suits the demands of higher education in the context of digitization of educational space.

It should be mentioned that integrating the flipped classroom into the curriculum of today's universities requires a substantial amount of effort and cooperation from lecturers, administration and even students. When implementing the flipped classroom model at various levels of higher education it's very important to know students' needs and expectations. However, the analysis of papers published by foreign and Russian academics shows a considerable lack of research regarding students' perceptions of the flipped classroom in an online ESL course, although it's been well established that this technology offers contemporary solutions to current pedagogical problems. Academic research into student perceptions and the effectiveness of the flipped classroom is relatively limited at present, with the majority of commentary coming in the form of informal weblogs and the like (Pudin, 2017).

The aim of the study is to examine how students perceive learning with the flipped classroom in an online ESL course and to provide practical recommendations for effective construction of the online flipped classroom. Three particular aspects are considered, namely, (a) students' general experiences and attitudes towards distance language learning using the flipped classroom, (b) students' experiences of using digital tools as a medium for learning, and (c) students' perception of how the flipped classroom model has developed their 4C skills: communication, collaboration, creativity, and critical thinking.

Theoretical background

To begin with, some conceptual prerequisites of the flipped classroom model were undertaken in the 1890s by scientists such as A. King and E. Mazur. The idea of flipping a classroom was discussed in the beginning of the 21st century by J.W. Baker, M. Lage, G. Platt, and M. Treglia (Gnutova, 2020). Then, the flipped classroom was first implemented by Jonathan Bergmann and Aaron Sams, who developed and created many educational videos to help their students understand the main concepts of new lessons and clarify the ambiguity of topics, developing students' learning throughout by imitating their real-life situations (Aljaraideh, 2019). In 2007, they recorded their lectures on video for the first time and posted them on the network for students who missed lessons. It sparked a widespread debate about implementing this model in teaching different subjects (Bergmann and Sams, 2008; Gannod, Burge, & Helmick, 2008; Tucker, 2012; Roach, 2014).

Initially popularized in the United States, the flipped classroom model in higher education has been discussed by Russian scientists since 2014 (Kuzmenko &Bazhenov, 2014; Kurvits M. & Kurvits J., 2014; Litvinova, 2014). Although today many academics around the world are debating the key issues of flipped classrooms in the context of digitization, there

isn't much research concerning teaching ESL in Russia in this perspective.

Pedogogists explain that the flipped classroom model replaces teacher-led in-class instructions with individual homework or group activities. Chernysheva O.V. states that the flipped classroom is the most appropriate kind of blended learning where the educational process becomes 'flipped' (Chernysheva, 2020). According to DeLozier and Rhodes, the flipped classroom is characterized by course structure: the instructional content is assigned as homework before coming to class. In-class time is then spent working on problem areas, advancing concepts, and engaging in collaborative learning. (DeLozier & Rhodes, (2017). Flipped classrooms integrate digital technologies, allowing the teacher to implement the restructuring and reorganization of teaching materials in both synchronous and asynchronous modes. The facilities of the flipped classroom approach can be accessible from anywhere, either in real time or after the fact (Prodromou, 2017).

It should be pointed out here that the role of the instructor in flipped learning is based on guiding and organizing the activities and skills, whereas the students' roles are developed through certain techniques such as self-learning, preparing lessons at home and getting ready for discussion inside the classroom (Aljaraideh, 2019). The main idea of the flipped classroom implies that theoretical knowledge could be learned at home via video or a recorded lesson online. The teacher creates opportunities for individual learning and the development of students' 4C skills doing exercises, projects, group discussions, brainstorming, and other types of activities. As a result, the flipped classroom model is student-centered and provides additional supporting materials and functions as in the "real world".

The flipped classroom can be implemented for developing different ESL skills: pronunciation, listening, speaking, reading, writing and grammar. However, these days these skills simply aren't enough. If today's students want to compete in our globalized workplace, they must also be proficient communicators, creators, critical thinkers, and collaborators (the 4 C's). Educators must complement all of the subjects with 4C skills to prepare young people to function as productive citizens and enter the global workforce (Erdoğan, 2019). There is no doubt that not only are communication, collaboration, creativity and critical thinking skills the main skills of learning and innovation in the 21st Century, but that they are effectively developed when teaching ESL in the online flipped classroom.

At the same time, there is an ongoing debate about the benefits and weaknesses of the use of the flipped classroom in higher education. The advantages of the flipped classroom model are numerous and they have made the technique popular all over the world.

Advantages to the flipped classroom:

- The flipped classroom frees up actual class time for more effective, creative and active learning activities, teachers receive expanded opportunities to interact with and assess students' learning, and students take control and responsibility for their learning (Nouri, 2016)
- The flipped classroom leads to increased student-to-student interaction (Jaster, 2017)
- The flipped classroom contributes to teachers' pre-service learning, skills, and affective development, specifically by creating a meaningful and authentic context for learning (Cabi, 2018)
- Teachers meet the learning needs of diverse student cohorts by customizing the curriculum and offering personalized teacher-to-student mentoring and peer-to-peer collaboration (Tomas, Evans, Doyle and Skamp, 2019)
- The flipped classroom is more enjoyable and fun than the traditional teaching approach, and students are keener to learn (Ngo & Md Yunus, 2021).

The disadvantages to the flipped classroom:

- A decrease in satisfaction with training, as well as a low technical proficiency of teachers which prevents the high-quality design and presentation of the developed lectures (Antonova & Merenkov, 2018)
- Some students are unable, or unwilling, to complete the class assignments, some students are unable to solve basic problems, even after taking notes (Jaster, 2017)

- Grading for the flipped classroom can be time consuming (Jaster, 2017)
- Students might fail to comprehend the learning content when watching videos at home (Hwang, Yin, & Chu, 2019)
- The significant time is spent on the materials by the teacher; students demonstrate bad time management (Gavrilova, 2020)
- Many teachers have little to no experience in this field, either technically or pedagogically.

To gain some insight on students' perspectives on the online flipped classroom, we decided to conduct our own poll. The results were fascinating.

Methods

To accomplish the goals of the study, at the initial stage an exploratory design was employed to define the strategies and principles for the construction of the flipped classroom model for the General English program. The data for qualitative and quantitative analysis was gathered through a questionnaire with both open and closed questions addressing our students' overall impression of the flipped classroom experience and use of digital tools and resources. In addition, the Likert-scale questionnaire was designed to evaluate the level of the students' 4C skills before and after the course.

Participants

The participants were second year students at Novosibirsk State University of Economics and Management majoring in International Relations. The total number of participants was 110, which included 79 females and 31 males, ranging in age from 19 to 22 years old, with a mean age of 20 years. Students did not have any flipped classroom experience prior to this course.

Course structure

The flipped classroom General English course was implemented during the spring semester of the 2019/2020 academic year and both the autumn and spring semesters of the 2020/2021 academic year. Although the transition to distance learning has changed the learning environment significantly, the main objectives of the General English course stayed the same: to develop language and communicative competencies and skills, with a special focus on the 4Cs of the 21st century skills (communication, collaboration, creativity, and critical thinking).

To satisfy the needs of the course the authentic course book *Keynote Upper Intermediate*, published by National Geographic Learning Publishing, was selected as it contains specially selected tasks aimed at mastering communication, collaboration, critical thinking, and creativity. Additionally, the course includes the use of TED Talks and thought-provoking native texts which develop the skills and literacies needed for meaningful communication.

The flipped classroom method requires that students learn new material before class, and, consequently, they have an opportunity to actively participate in different activities aimed to develop and master what they have learned while actually in class. The general understanding of the new material is assessed, preferably before the class, with subsequent assessment during or after the class, using different instruments. Implementing such an ordered approach allows students to understand the importance of completing the pre-class tasks, as these learning materials are highly reinforced with in-class and after-class work.

In developing the curriculum and assessing outcomes for this course, we have gained insight and found solutions to the following methodological problems: which activities to choose for pre-class, in-class, and after-class work, how to motivate students to complete pre-class tasks, how to bridge the gap between pre-class work and in-class work, how to connect the exact tasks and activities with the final outcomes, all the while managing not to overload students with too much material.

For each lesson plan, the chosen activities were specially selected and matched to Bloom's taxonomy, which classifies learning objectives into levels of complexity according to the degree to which they develop different thinking skills using six levels from lower to higher-order thinking skills. For pre-class activities matching lower-order thinking levels, tasks

that required remembering and understanding were selected. To engage students 4C skills in-class and after class, activities corresponding to higher-order thinking skills like applying, analyzing, evaluating, and creating were chosen.

Procedure

Firstly, prior to online lessons, students were given instructions and access to the materials and tasks to complete before the class. Communication with the teacher was held in a social networking group created solely for the class, where students could ask the teacher questions and communicate with each other. Among the main media content were YouTube videos, TED Talks, BBC materials, and others. Pre-class activities included: watching topic-related videos, TED Talks, or series, completing video-based tasks, creating questions about the text or story, vocabulary and grammar-chunks exercises as well as comprehension checking assessments. Such activities focus on recognizing and recalling grammar and vocabulary chunks, defining keywords, summarizing and explaining information.

The in-class session began with feedback from students on their pre-class work, which usually took no more than 15 minutes. Class time was typically used to discuss any questions, work in pairs and groups on projects, activities and creative tasks designed to enhance communication, collaboration, critical thinking, and creativity. Students were given a variety of different higher-order thinking skill activities, from applying to creating: peer assessment activities, role-playing, presentation of a joint project prepared outside of class, performing a TED talk watched before the class, and answering the audience's questions. Pair and group work also included different discussions about the videos, TED talks, shows, and series watched before the class, retelling the texts or videos, asking and answering spontaneous questions about the plot as well as preparing thought-provoking questions, working on the vocabulary in pairs and groups: for instance, collaborating on a search for the definitions and the context for the key vocabulary, making up sentences and stories with keywords, and etc.

Finally, students were given higher-order thinking skill after-class activities which reinforced the previous material. These tasks included completing a final assessment, creating and posting a recorded, topic-related video in the Google Classroom, watching additional TED Talks, digging deeper into a related topic, posting written work and peer assessments in Padlet, individual or group research, and project work with a presentation during the next lesson.

Digital tools and resources

There were numerous digital tools and resources that helped us effectively flip the classroom during this course study. They can be generally classified into: digital communication platforms, web services, learning management systems (LMS), social media, videoconferencing applications, audio and video devices and programs, e-assessment tools, online dictionaries, corpus-based web tools, and other resources. Participants actively used the following trademarked programs and software: Zoom video conferencing, YouTube, Vkontakte social network, Google Classroom and other Google instruments, Canvas, Kahoot, Padlet, TEDTalks, BBC Learning English, iSLcollective, Tube Quizard, YouGlish, online English dictionaries, SKELL engine for language learning, and others. Alongside enhancing 4C skills, using these digital tools was aimed at personalizing learning and developing each student's digital literacy.

Survey instruments

To examine how students studying our General English course perceived flipped classroom learning, a questionnaire was developed and sent to 110 university students using Google Forms. The questionnaire consisted of the following sections and topics:

- Section A: students' general attitude towards flipped classroom learning, experience and implemented activities, the advantages and disadvantages of the method;
- Section B: students' experience of using digital tools as a medium for learning;
- Section C: students' perception of how the flipped classroom learning method has developed their 4C skills.

In Section A the following questions were asked:

– Open questions about the students' overall impressions towards flipped classroom learning;

– Open questions about the advantages and disadvantages of the flipped classroom model;

– A closed question asking the student to mark the pre-class activities that students appreciated doing the most;

– A closed question asking the student to mark the in-class activities that students appreciated doing the most;

– A closed question asking the student to mark the after-class activities that students appreciated doing the most;

– Closed questions asking the student to mark the pre-class, in-class, and after-class activities they felt developed their 4C skills (communication, collaboration, creativity, and critical thinking).

The choice of the last three aforementioned questions is particularly relevant because according to the core principle of the flipped classroom method there should be a clear distinction and meaningful connection between the activities done before, in and after class.

Section B contained questions about the usage of digital tools in the flipped classroom. The students specified the tools they liked the most, gave the reason why and chose the types of activities that helped them develop their 4C skills.

Additionally, before and after the study, students were asked to evaluate their 4C skills using a 5-grade scale (Section C of the questionnaire).

Results and discussion

(a) Views and attitudes towards the flipped classroom model in distant learning

Our survey has shown that students' overall impression of the flipped classroom experience during a distance learning program is positive (94 %). 6 % of the students stated they could not describe their experience as something qualitatively different from language learning in the offline format. Fig. 1 provides a visualization of the most frequently mentioned advantages of the flipped classroom that the students mentioned when giving feedback after the study.

Among the benefits that the students pointed out, the flipped classroom model can provide the opportunity to improve self-management skills including time-management, self-motivation, goal setting, and self-reliance; the opportunity to save time on the commute to the university; a comfortable, less stressful environment for studying; the flexible variety of content, assignments, learning tools and conditions.

Meanwhile, the students were also asked to mention any negative aspects of their learning experience. These are visualized in Fig. 2.

The students indicated the lack of live, face-to-face communication as a major drawback of distant language learning. Still, they

Fig. 1. Advantages of the flipped classroom model in distance learning from the students' perspective

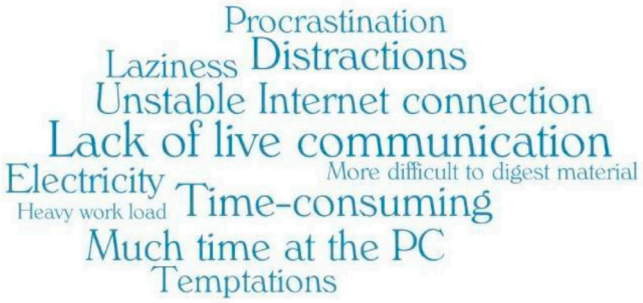

Fig. 2. Disadvantages of the flipped classroom model in distance learning from the students' perspective

also admitted that doing home assignments was equally as time-consuming as the flipped classroom model implies a heavy load of independent work before class. The students found it challenging as well in terms of self-organization due to numerous interruptions at home, which often led to distraction and procrastination. In addition, the students named some technical problems, such as an unstable Internet connection or sudden power outages. There were just a few students who said they didn't experience any difficulties at all.

As a part of the questionnaire the students were asked to mark the activities that they appreciated doing most of all in the flipped classroom model. Fig. 3 displays the participants' responses referring to pre-class activities.

Items (1) and (4) gained the highest percentage (71 % and 69 % respectively). According to the students, these activities were entertaining in nature and an effective means of receiving and remembering information. They fostered development of listening skills, encouraged the use of authentic speech, enlarged the students' worldview and saved time for classroom discussions. Item (2) was chosen by 36 % of the respondents as the students liked receiving their test results immediately. Item (3) was marked by 14 % of the participants as convenient in terms of the pace of time that the students could choose to study material.

Figure 4 details the students' responses to the items referring to in-class activities.

As the results presented in Fig. 4 demonstrate, the study subjects were the most preferable to discussions in pairs and small groups (82 %). The respondents believe that this activity contributed greatly to the development of their communicative skills as they constantly had to change partners, practicing questions and answering them spontaneously. Of course, these types of activities are exactly what we strive for in communicative learning, so this is considered to be a positive outcome. In ad-

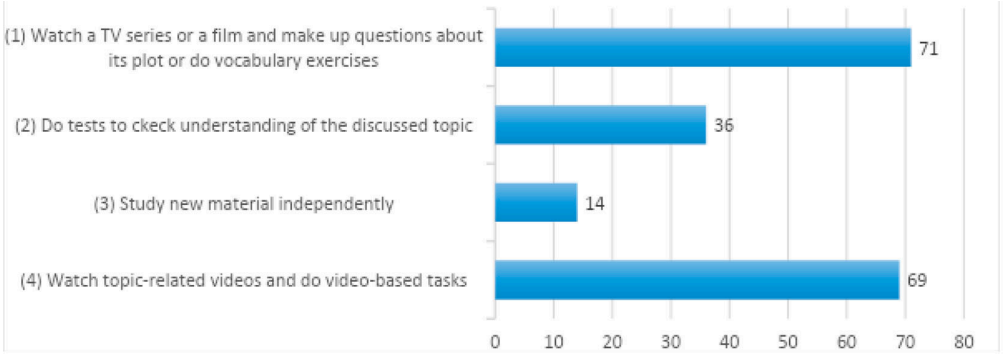

Fig. 3. Students' preferences for pre-class activities, %

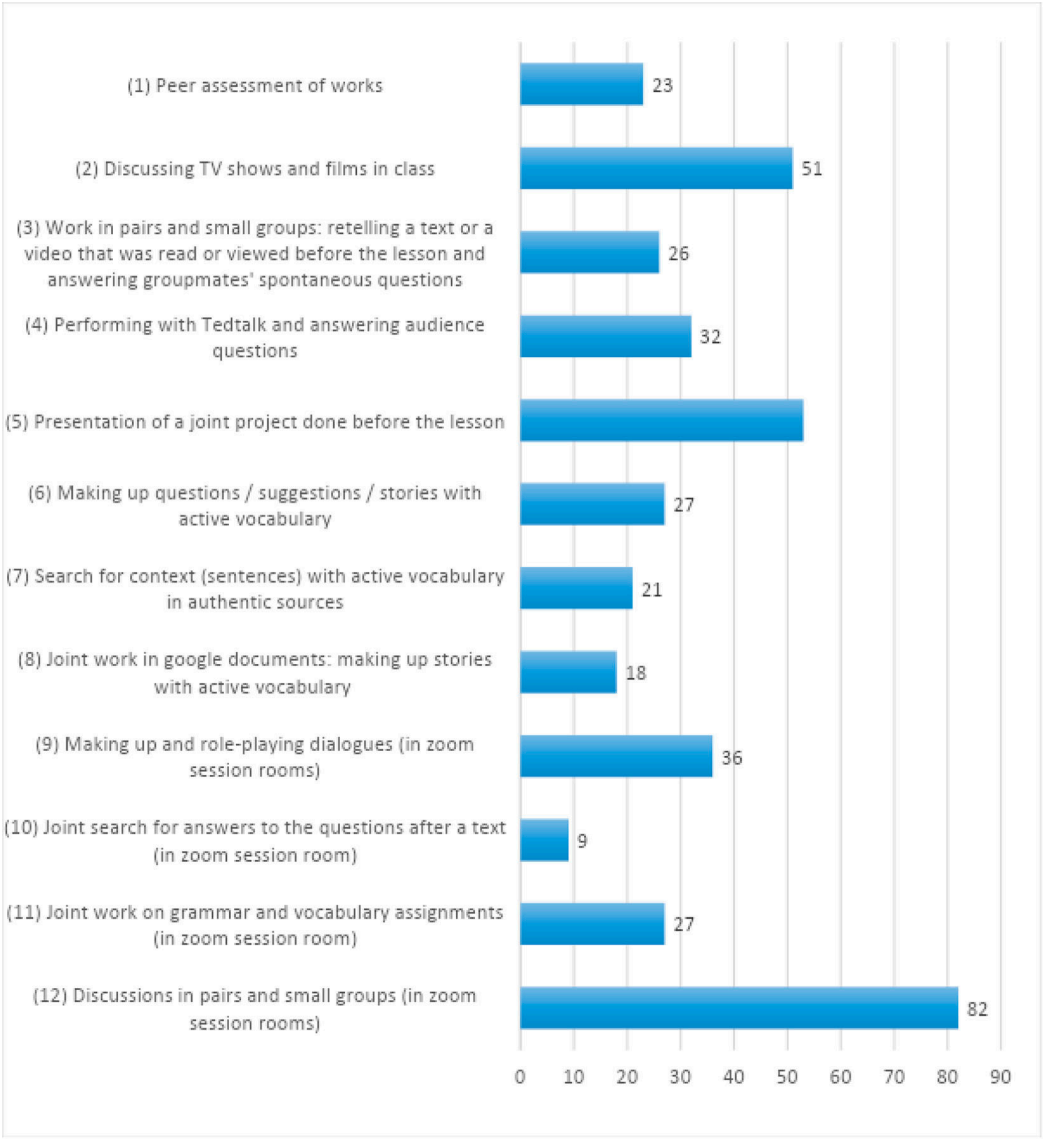

Fig. 4. Students' preferences for in-class activities, %

dition, the students feel it provided them with the opportunity to share their ideas on the topic and learn their group mates' views on the issue at hand. Interestingly, item (9) referring to role-plays was chosen for the same reasons, but gained less popularity (36 %).

The other two activities that were enjoyed by the majority of the students were item (5) and item (2), at 53 % and 51 %, respectively. The respondents perceived these activities as effective for development of their communicative skills and teamwork. Moreover, the participants viewed it as a good way to widen their vocabulary.

Vocabulary-aimed activities, items (3), (4), (6), (7), (8), and (11), were marked by 18–27 % of the participants. According to the students' feedback, these activities made the process of remembering new vocabulary easier.

Item (4) was mentioned by 32 % of the students due to its potential to improve speaking skills, particularly intonation. Additionally,

performing a TedTalk and answering audience questions seemed challenging to the participants in terms of summarizing information and coming up with answers to the questions after the talk.

23 % of the respondents pointed to item (1) as an effective way to receive feedback from fellow students and learn their views on the discussed topic.

Interestingly, item (10) was preferred by a few participants (9 %), although the other items referring to joint work were appreciated more.

The percentage of responses in favor of particular after-class activities is demonstrated in Fig. 5.

A relatively high preference for item (5) (41 %) is explained by the students' aptitude for writing and expressing their thoughts on the issues during discussion. Item (3) was marked by 23 % of the respondents for the opportunity to solidify language and content of the topic. 18 % of the students pointed to item (1) saying that Kahoots was a convenient platform for the final test as they could immediately see their detailed results and, in particular, knowledge gaps that needed restudying. Item (7) was popular with 14 % of the respondents as this activity provided them with the opportunity to get creative and develop their presentation skills. Interestingly, items (4) and (6) did not receive a single response.

(b) The use of digital tools as a medium for learning

The conducted survey revealed that when it comes to distance language learning, 55 % of responding students enjoyed using the following instruments most of all: *Zoom* (both synchronous sessions and breakout rooms) and *Kahoot*. Among the benefits that Zoom provides, students mention the opportunity for collaboration and teamwork, the opportu-

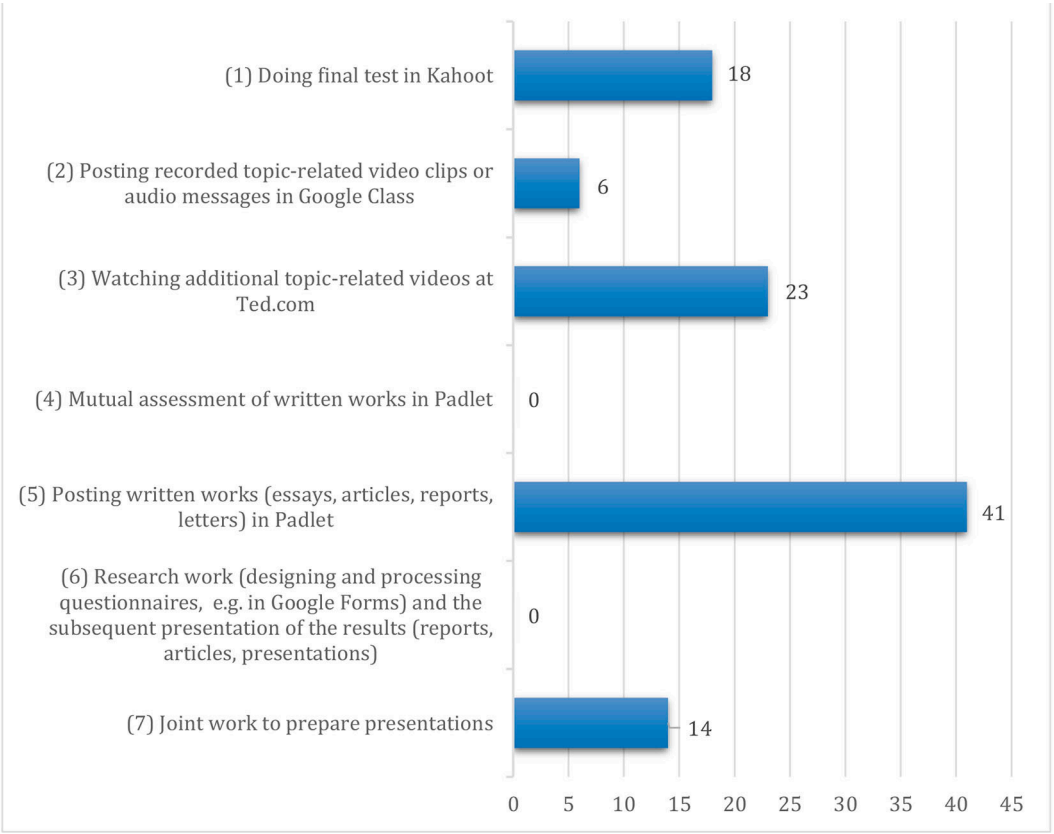

Fig. 5. Students' preferences for after-class activities, %

nity to keep communication with group mates and the teacher as well as the opportunity to work face-to-face in breakout rooms without being disturbed by other students. The respondents highlight the convenience of using such a platform as it allows users to get in and out easily and saves time for commuting. All in all, students find the Zoom experience close to in-person communication and collaboration. Another popular tool, Kahoot, was described as entertaining, offering a variety of tasks, appealing in terms of the testing format, providing fast results, convenient for further mistakes analysis and fun for competing with group mates.

Class management software, websites and communication tools gained the following percentages of preference: G*oogle Classroom* – 41 % (due to its convenient interface and the opportunity to create tasks and deadlines), *Vkontakte* – 36 % (due to the ability to exchange information and communicate with group mates and the teacher in real time), *Padlet* – 36 % (due to the convenient placement of essays and the possibility to look through and comment on other students' work, and the opportunity to be creative), and *Google Documents* – 26 % (due to the opportunity for open collaboration by more than one user).

Presentation aids such as *Canva* and *Google Presentations* were positively evaluated by 50 % and 23 % of the students, respectively, for being helpful when making presentations.

The survey showed students' preference for using sites with authentic video for educational purposes: *TEDTalks* appealed to 46 % of the respondents, *Learning English (BBC)* – to 14 %, *iSLcollective* – to 14 % and *Tube Quizard* – to 5 %. Students believe that these tools not only provide interesting, life-relevant information but are also useful for developing listening skills and vocabulary.

Another set of online resources that students had experience with concerns foreign language vocabulary. According to the respondents, they mostly enjoyed using online English dictionaries (36 %), SKELL (Sketch Engine for Language Learning) (32 %) and YouGlish (17 %) to improve vocabulary scale by observing words and phrases in context.

(c) Developing the 4C skills through the flipped classroom

To address this research question, a statistical comparison was drawn between the students' evaluation scores of their 4C skills before the experiment in March 2020 and after the experiment in May 2021. Table 1 shows the statistics of the students' self-evaluation scores in terms of their 4C skills.

According to the results in Table 1, the overall tendency is that all 4C skills – communication, collaboration, creativity and critical thinking, were given higher scores at the end of the experiment. The highest mean increase is observed for communication skills (in average by 1.5 points), item (4) being the leader of the tendency.

Conclusions and recommendations

Digitization of educational space in universities provides huge potential for both new ways of language teaching and answers to the challenges that academic staff have to respond to. The effects of the COVID-19 pandemic have been far-reaching and the field of education has been no different. It has caused a global re-orientation towards online communication resulting in even faster digitalization of education and the pursuit of alternative methodologies. As can be seen from the exciting results of our survey, the flipped classroom has a lot to offer language students and teachers looking for such an effective online methodology.

The idea of the flipped classroom in this study was to move from a passive, teacher-centered learning environment to an active, student-centered learning environment. Our survey showed that 94 % of young people enjoyed the flipped classroom model in distance learning because they could improve their self-study skills, communication skills, collaboration skills, critical thinking skills, and creativity.

More specifically, the students expressed higher levels of satisfaction with pre-class topic-related videos (including TV series, films, etc.) and completing video-based tasks because these activities are a more effective means of receiving and remembering infor-

Table 1. Students' evaluation of their 4C skills

4C skills	March 2020		May 2021	
Communication	M	SD	M	SD
(1) I can use proper strategies and expressions for starting and ending a conversation, asking questions and responding to them	2.318	1.327	3.727	1.008
(2) I can paraphrase and summarize different ideas and express my opinion towards others' points of view	2.409	1.230	3.727	0.862
(3) I can deal with written communication effectively	2.500	1.157	3.636	0.881
(4) I can share my ideas during in-class and online sessions with others	2.272	1.249	3.818	0.886
Collaboration				
(5) I can do collaborative tasks in groups (e.g., matching, ranking, seeking for information and filling-the-gaps activities, etc.)	2.545	1.117	3.590	0.984
(6) I can successfully do project work with others	3.136	1.358	4.090	0.949
(7) I can reach a common consensus during debates with others	2.363	1.523	3.409	1.154
(8) I can do peer review of written and speaking tasks of others, give and receive feedback	2.409	1.336	3.409	0.937
Creativity				
(9) I can generate different ideas	2.500	1.305	3.681	1.182
(10) I can construct a diagram, sketch, etc. to make a model that represents my idea	2.636	1.109	3.590	1.072
(11) I can apply my individual talents, ideas and thoughts when communicating with others and completing different tasks	2.545	1.304	3.818	0.886
(12) I can use different tools and resources to complete project work, storytelling tasks, etc.	2.681	1.292	3.954	0.975
Critical thinking				
(13) I can gather relevant information for my projects	3.045	1.186	3.954	0.928
(14) I can ask and answer thought-provoking questions	2.318	1.182	3.454	1.075
(15) I can discover the author's point of view in the context and make conclusions	3.000	0.953	3.727	1.008
(16) I can find solution for a problem when studying and I am active as a learner	2.590	1.072	3.681	1.103

mation, developing listening skills, enlarging their worldview and saving time for classroom discussions. They enjoyed discussing different topics, TV shows and films in pairs and small groups during classes. The respondents considered it an advantage of the new methodology that they could develop communication and teamwork skills, widen their vocabulary and share their ideas on the topic. As for after-class activities, the students had a better outlook on writing essays, articles, reports and letters.

It should be mentioned here that some students were unable, or unwilling, to complete the class assignments because of its time-consuming nature, lack of confidence and difficulties with self-organization. Some students didn't like to study new material independently, assess mutually written works or do research work. In addition, they named technical problems and the lack of live face-to-face communication as major drawbacks of the online flipped classroom. Nevertheless, all students were actively involved in the learning process and most of them performed well in spite of all these challenges.

Having studied our students' experiences of the flipped classroom, we developed the recommendations for language teachers as the result of the findings of this research. Thus, to

apply and adopt the flipped classroom model in the context of digitalization of educational space more successfully, teachers are recommended to:

- take into consideration students' individual expectations and needs when constructing the online foreign language flipped classroom;
- explain to students how to study independently and use digital tools and resources to their advantage before implementing the flipped classroom model;
- make assignments for before and after class independent work concise, simple and not too time-consuming;
- include watching short video materials as a pre-class activity (e.g., TedTalks);
- provide a variety of in-class activities aimed at developing communication and collaboration skills using digital communication platforms and videoconferencing applications (e.g., general Zoom sessions and breakout rooms) and learning management systems for students' joint projects and peer assessment (e.g., Google Classroom and Padlet);
- assign after-class activities as a follow-up to the discussed issues during the class using social media, online educational resources and various e-assessment tools (e.g., Kahoot);
- use the online flipped classroom as a means to develop students' 4C skills of the 21st century (communication, collaboration, critical thinking and creativity).

In conclusion, the current flipped classroom model as an innovative educational technology has shown that the students' perceptions of the flipped classroom were positive and they suited the demands of students at the university level. The flipped classroom implemented in this study is just one example of how language teachers can change their own teaching practices. The results indicate that the flipped classroom model offers promising ways to engage students in more motivating and effective active learning. This technology has proven its effectiveness and should be introduced into higher education on a large scale. Further research is required to investigate the applicability of the flipped learning continuum in a range of learning contexts.

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