EUROPEAN INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH AND MANAGEMENT STUDIES

VOLUME03 ISSUE01
DOI: https://doi.org/10.55640/eijmrms-03-01-19 Pages: 113-129

ESSENTIAL CHARACTERISTICS OF THE CONCEPTS "FLIPPED CLASSROOM" AND "PODCASTS" IN MODERN TEACHING METHODOLOGY

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ABOUT ARTICLE

Key words: Methodology, innovative technology, cultural approach, flipped classroom, podcast, mixed education, virtual classroom, google classroom, distance education, audio file

Received: 19.01.2023
Accepted: 24.01.2023
Published: 29.01.2023

Abstract: Currently in Uzbekistan different approaches and methods are used in teaching English to university students: problem-based learning, the case method, the context method, the communicative-activity approach, and others are incorporated into the curricula of universities. At the same time, the general level of mastering the English language by university graduates remains low. A significant increase in the communication skills of students based on the cultural characteristics of native English speakers is required. The flipped classroom model is a type of blended learning that includes forms of traditional classroom and e-learning with modern multimedia devices. The flipped class allows the teacher to provide students with theoretical material for self-study at home, so that later during the classroom sessions they will discuss together only the most difficult aspects of new topics, as well as perform practical creative tasks to consolidate the material covered. A podcast is an audio file (audio lecture) that can be listened to online on the Internet or downloaded to a mobile device (desktop computer). Podcasts have great didactic potential in the study of foreign languages due to their authenticity, relevance, versatility, media competence, multi-channel, interactivity, ability to increase motivation and provide an individual approach to learning.

INTRODUCTION

In modern conditions of globalization and the rapid development of high technologies, the active use of various mobile applications has become commonplace. Mobile applications provide simple and affordable ways to obtain information, and the constant exchange of information has become an integral part of every person's life today. Digitalization extends to all spheres of public life. Currently, almost all people aged 10 to 60 have mobile devices: smartphones, iPhones, laptops, MacBooks, tablets and stationary computers. Every year, technological progress improves electronic processors, which allows them to perform more and more complex tasks and process an increasing flow of information[1]. The education sector is also involved in the digitalization process, as it forms the basis for the development of the individual, society and the entire state. Moreover, the full-fledged provision of the national security of Kazakhstan largely depends on the education system. A new training system based on mobile educational applications in Uzbekistan has not yet been built, but “The concept of development of the higher education system of the Republic of Uzbekistan until 2030” drew attention to the key points related to teaching methods and the development of online systems in the educational environment[2]. It is necessary to improve the professional competence of specialists and increase the effectiveness of their professional activities. This indicates the general feasibility and relevance of the use of new teaching methodologies, mobile educational applications, including flipped classroom and podcasts, in professional teaching activities.

Modern methods of teaching foreign languages contribute to the development of the education system, the full formation of personality, familiarization with new high technologies. In particular, such techniques include business games, case study, storytelling, testing and flipped classroom. Updating in the field of teaching foreign languages gives the teacher an opportunity to independently choose methods and techniques that meet his inner needs, desires and intellect. The use of modern methods allows teachers to move far ahead in their professional activities, which significantly increases the knowledge of students and allows them to communicate without language barriers. In this study, we will examine in detail the concepts of flipped classroom and podcasts, identifying their features and advantages in modern foreign language teaching.

The flipped classroom model is blended learning based on a combination of traditional classroom and distance e-learning forms with interactive features[3].

Blended learning means sequential traditional and e-learning with a change in time of its stages. The corresponding example is shown in Figure 1:

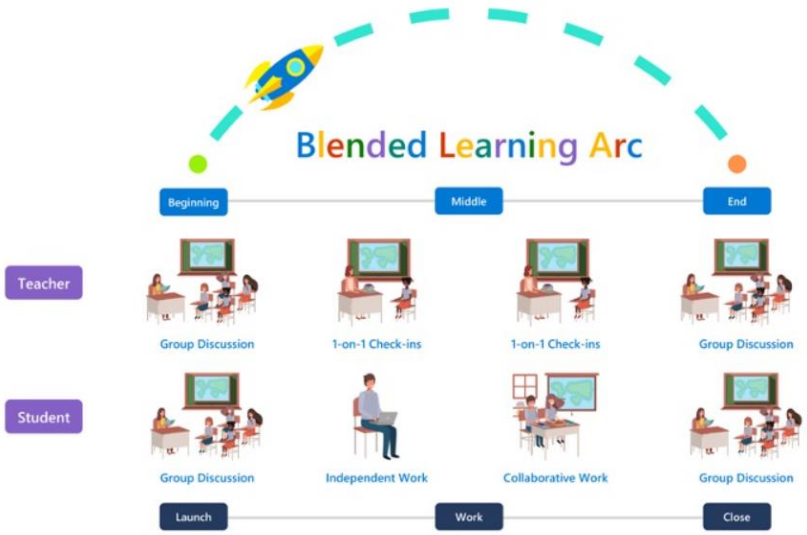

Figure 1. The scheme of Blended Learning[4]

The principles of Blended Learning are the following:

1. Consistency. To obtain the effect, one should strictly follow the rules in teaching: first, the student must independently study the proposed material, then receive the theory from the teacher, and only then use it in practice. This principle is also embedded in the flipped class model.

2. Visibility. By means of the modern e-learning tools, it is possible to create a knowledge base that the student will always have at hand. In blended learning, theoretical materials are available to the student (video curses, books or simulators).

3. Practical application. Practical lessons are required to master the theory.

4. Continuity. In blended learning, the material is mastered gradually, since the student can always go to the educational portal and read new material on the next topic.

5. Support. With e-learning system, the student can always ask the teacher a question and get an answer promptly, without waiting for the next face-to-face lesson.

There are several reasons for the transition from classical to blended education. In higher education, this is primarily due to the desire to optimize business that has spread since the end of the 20th century.

In the educational process, inefficient and unloved types of work were the first to fall under optimization:

- Face-to-face consultations: during their conduct, students, as a rule, begin to ask questions that they have not even tried to solve themselves before. Student self-tracking methods in modern blended learning systems allow teachers to only accept questions from those who have worked in good faith on their own;

- Checking test items (in blended learning, this can be done automatically).

Progress in information technology allows the development of a blended learning system, as new opportunities for the rapid exchange of relevant information via the Internet are constantly emerging. Exam questions, assignments, manuals are simply posted on the educational portal or sent to students by e-mail or instant messengers.

Blended learning is developing due to the presence of numerous studies on the features of information processing by the brain, which have become actively carried out in robotics. After the scientific publications of Professor Suzanne Dickelman in 2008-2010, indirectly testifying to the important role of sleep in the process of memorizing information, the libraries of American universities quickly reconsidered their attitude towards students dozing over books and began to create special rooms for short-term sleep [5](Figure 2).

Figure 2. Special rooms for short-term sleep in the US libraries

New York University professor Wenbiao Gang obtained direct evidence for this hypothesis in 2014 by observing changes in the rat brain during sleep. It turned out that it is during sleep that new connections of neurons are formed, which are responsible for remembering information received before sleep. Commissioned by the US Federal Department of Education, Stanford University has analyzed more than 1,000 empirical studies comparing traditional, online and blended learning[6]. Scientists through research have proven that in 1996-2008 online learning was seriously inferior to traditional forms of

learning. However, when educators developed blended learning, it turned out that it was able to eliminate the problems that only arise with online learning. After that, the blended learning model became popular and received a strong impetus for development.

As a result, a separate sector emerged in the e-learning system, which was formed into the Blended Learning system (Figure 3):

Figure 3. Specialists in Blended Learning systems

Blended learning will be effective when the goals of e-learning are set correctly and there is the ability to achieve them using a specific distance learning system (LMS). One can clearly set goals based on learning theory. However, the number of such theories is so great that it can significantly complicate the process.

As knowledge about how the brain works is accumulated, the number of alternative theories will dwindle. In the meantime, the most popular among teachers and developers of LMS is the behavioral theory of learning, in which the student is expected to have a clearly defined reaction to a particular situation, and if it deviates from the “norm”, the student is given additional conditions (reinforcement), which should lead to the expected result. Despite the nearly 100-year history of the successful development of this technology, it has many critics who pointed out the complexity of creating tests that check not so much the presence of facts, definitions and rules in the student’s memory, but the ability to build a plan for solving the proposed problem on their basis.

Within the framework of Blended Learning, this contradiction is resolved simply: in the e-learning phase, a test of knowledge is taken out, leaving the teacher more interesting work for him to measure the level of the student’s creative potential. In order to fully implement in the e-learning phase the main formula of the S-R-R behavioral theory (Situation → Reaction → Reinforcement), one needs to add

Reinforcement to each test of the phase, consisting of Situations, as well as the rules for its presentation in in case of unsatisfactory test results (i.e. “Reactions”).

It is important to start with the development of tests, and then move on to creating the training materials themselves. With this approach, e-learning will initially be focused on what the student should know after passing it. This will allow you to build the training material itself in the most efficient way.

Thus, the creation of the Situation → Reaction → Reinforcement modules is the main task of the distance learning system in the framework of Blended Learning.

A flipped classroom is a learning model where a teacher provides material on an educational platform for students to learn on their own at home. During traditional classroom studies, the material covered is already consolidated in practice. The flipped class involves the use of vodcasts, podcasts, and pre-vodcasts. These terms should be defined.

A podcast is an audio file (this is an audio lecture) that the author places on the Internet, users can download it to their devices or listen online at any convenient time.

A vodcast is a video file with lectures by a teacher or educational material that is posted on the Internet, it can also be downloaded or watched online.

Pre-casting is a method of teaching when the teacher's video lectures precede the study of a new topic, which will then be considered in class in the classroom. This is an introductory video material on a new topic.

There is a technology for using vodcasts in the educational process using special software:

A Content Management System (CMS) is necessary for the convenient creation and management of all educational materials on the educational platform;

The Learning Management System (LMS) provides students with access to all educational materials posted for them and provides feedback to the teacher.

Flipped Class is a learning model that provides for the use of special vodcast technologies as part of homework:

- View video files;

- Study of text materials and graphic images;

- Performing test tasks on self-studied material.

During classroom lessons, the teacher considers the most complex theoretical issues together with students and solves practical research problems with them. After the traditional class in the classroom, students independently perform creative tasks and tests to consolidate the material covered in a flipped classroom.

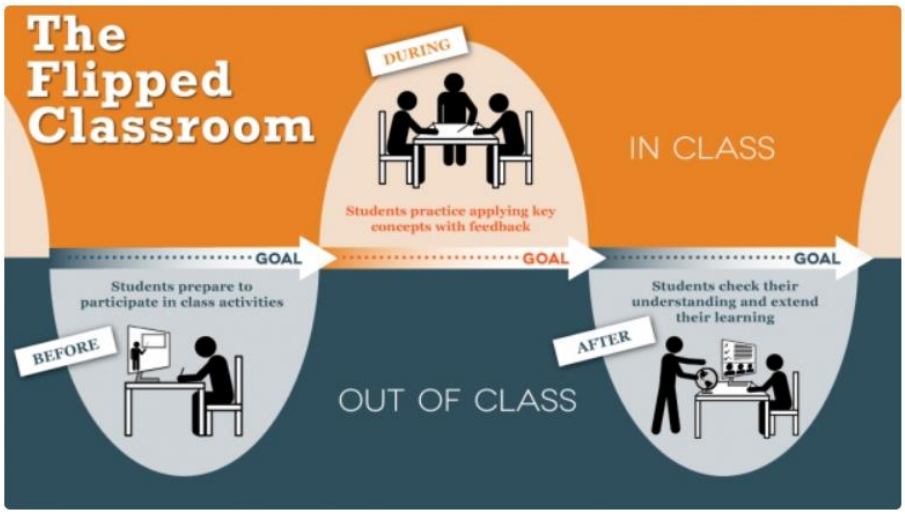

Figure 4. The Flipped classroom organization

Within the application of the flipped classroom model, the teacher transfers his leadership to the students. The teacher ceases to be a traditional “wise man on the stage” and becomes a “side guide” who helps students to better understand the topic, choose the right tools for practical work with new material, etc.

The founders of the flipped classroom model are two teachers Jonathan Bergman and Aaron Sams, who in 2007 first figured out how to provide lectures for athletes who often miss classes, and then developed this idea into a new educational direction. In it, they were helped by publications in the largest American newspapers and magazines. In particular, in the Times magazine on December 10, 2006 in the article “How to get our schools out of the 20th century” one can read that American schools are certainly not frozen in time, but given the pace of change in other areas of life, our public schools are becoming something like relics of the past. Children spend most of the day the way their great-grandmothers and

great-grandfathers once did: they sit in rows listening to a teacher's lecture, hand-scratch doodles in notebooks and read textbooks that are out of date on the day they were published[7].

Bergman wrote that in the spring of 2007, Aaron showed him an article about a software product that allows one to create a PowerPoint slideshow that includes voice and any text notes. The whole thing is then converted into a video file that is easy to distribute online. They realized that this could allow students to skip classes without skipping classes. The scientists started posting their lectures online for students to access. They recorded their lectures for selfish reasons. They spent an inordinate amount of time re-teaching the students who had missed classes. The lecture tapes became their first line of defense[8].

The term "podcast" arose from the combination of the two concepts "iPod" (Apple MP3 player) and "broadcast". In 2005, it meant an audio or video file that can be freely downloaded from the Internet and listened to (watched) on a mobile device[9].

Today, a podcast is recognized as audio or video material in a foreign language according to the subject of the curriculum and used in education. Podcasts are actively used by completely different users for entertainment purposes or for learning foreign languages or other educational subjects. They are especially popular in the system of distance education.

Podcasts are widespread for the following reasons:

- They can be downloaded for free on a mobile device or desktop computer, and then viewed or listened to anytime and anywhere;
- Universal format of audio and video files, so they can be played on all mobile devices;
- Podcasts are often updated, there are more and more of them, so there is always a choice of suitable material;
- One can subscribe to podcasts and follow their updates through special notifications on mobile devices;
- Authentic nature of audio and video materials;
- The presence of a script or subtitles in the files[10].

In general, the scientific literature contains many works of scientists devoted to various aspects of the application of modern information technologies in the education system. In particular, the works of F. Caena and C. Redecker[11],

J. Fraillon, J. Ainley, W. Schulz, T. Friedman and E. Gebhardt[12],

G.B. Gudmundsdottir and O.E. Hatlevik[13], F. Hamidi, M. Meshkat, M. Rezaee and M. Jafari[14], A.E. McFarlane[15], and others. The following scientists studied the theory and methodology of using podcasts for pedagogical purposes in English classes: V. Fernandez, P. Simo and J.M. Sallan[16], D. Indahsari[17],

S. Nikolou and M. Darra[18], S.M. Palenque[19], M. Yoestara and Z. Putri[20], and many others.

According to the scientific literature on the research problem, one can point out the following didactic benefits of podcasts:

1. Originality. Podcasts are predominantly produced by native speakers, which is important for language learners. They reflect the cultural realities of the country of the language being studied and reveal the verbal and non-verbal communication codes of native speakers. Often podcasts contain information useful in the professional activities of future specialists, which allows you to simulate the natural environment of communication in the educational process.

2. Multifunctionality. Thanks to the use of podcasts, you can simultaneously develop different types of speech activity: reading, writing, speaking and listening. Podcasts also form the socio-cultural competence necessary for working with foreigners. A future specialist becomes more competitive in the labor market if he knows the culture, traditions and customs of the country of the language being studied and is well versed in world problems.

3. Media competence. In the context of digitalization, it is important for a modern specialist to have up-to-date computer skills, which implies the exchange of video and audio files in real time, to be able to create, edit, transcode and post them on the Internet. Media competence has become a necessity when learning a foreign language[21].

4. Relevance. With podcasts, you can regularly update your archive of educational and professionally significant materials. Every day, a student or teacher can track new events in the world and countries of the language being studied in various areas of social life and discuss them during classes, perform creative tasks.

5. Simultaneous perception of podcasts through visual and auditory channels of information. The visual channel perceives objects, actions, events, which allows you to better comprehend sound information.

In other words, this allows visual-auditory analysis of incoming information, which leads to its qualitative assimilation.

6. Interactivity of podcasts, since any user can work with them through different mobile devices, write comments, change content, and also select information using special filters, adjust the transmission speed, etc.

7. Motivation. The use of podcasts significantly increases the level of motivation of students and teachers, since it is interesting, accessible, useful, promotes self-education, broadening one's horizons, and establishing international scientific relations.

Podcasts through motivation allow you to emotionally involve teachers and students in the educational process, they create the effect of participation. The combination of cognitive and emotional components cause a desire to learn a foreign language, contributes to the memorization of new material, enhances the educational function of education.

8. Possibility of individualization of training. Podcasts can be tailored to the level of knowledge, skills and abilities of a particular student to make assignments differentiated. Access to podcasts at any time allows you to learn a foreign language at a pace convenient for the student.

In teaching a foreign language, podcasts solve many methodological problems. In particular, this can be the formation and development of hearing and pronunciation skills, enrichment of vocabulary, improvement of grammar, development of oral and written speech[22].

Today, online learning is already partly included in the English language teaching system, both in the field of additional education and in universities. On the Internet, there are many programs, platforms and resources available to teachers and methodologists for organizing online learning: Skype video chat with the possibility of synchronous communication and exchanging files of various formats; Google Hangouts On Air video chat in combination with the Google Docs platform; interactive exercises from designers LearningApps or Educaplay; lecture recordings and webinars on Etutorium, AdobeConnect, Coursera platforms; online testing from IELTS or Cambridge English; and many others[23].

Against the background of the resources we mentioned, the Google Classroom online educational platform stands out favorably (Figure 5). Google Classroom is an online learning service, allowing to create courses, conduct webinars and test students. Google has collected several of its tools in one service. Among them are a disk for storing files, Google Docs for publishing text lectures, presentations,

polls, a video meeting service, and a calendar for planning training. Google Classroom is suitable for schools and universities. This educational platform has the minimum necessary to launch online learning: from a course editor to a convenient calendar for planning classes.

In order to open your virtual classroom, it is enough to create a Google account. Immediately after that, one can add students, create a course or test, and also host a webinar. Google Classroom is available for free if one does not receive tuition fees. One can create 30 courses per day and share them with 200 people.

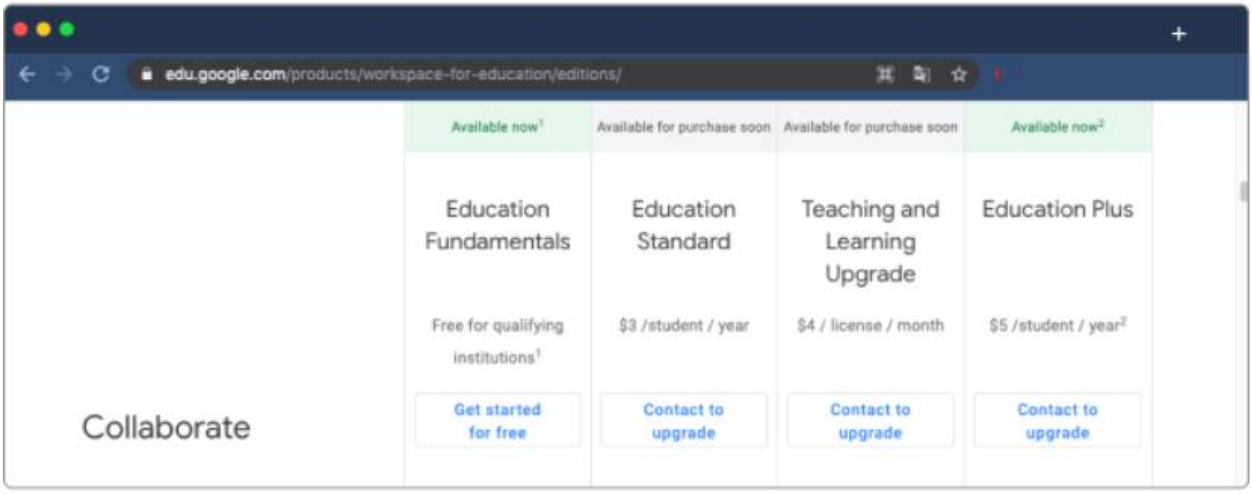

Figure 5. Virtual classroom on the Google Classroom online educational platform[24]

A course in Google Classroom is a collection of materials on a single topic. You can combine ready-made text documents, videos, presentations that are uploaded to Google Drive, or create from scratch into a course. Organizing the material in each course is possible by dividing it into topics[25].

If there are no ready-made materials, they can be created from scratch. To do this, the service has built-in tools: a text editor like Word, presentations, assignments and tests. Each course can be beautifully designed by means of adding a title cover. This is where the design possibilities end. The course is divided into theory and practice. Theory is all lecture materials that are added to the curriculum. As a practice, one can use assignments and online tests so that students consolidate the studied material. There are three ways to share a course: send a student an email invitation, send a connection link, or tell the student a code to enter when they enter the classroom.

Tests will help check the knowledge of students after the course. They can be placed at the end of each curriculum or run separately, for example, to conduct an unscheduled control. There is a Google Forms tool for testing. This is an online service where you create security questions. The developers have integrated it into Google Classroom. To start working, one does not need to install anything more, the Internet is enough. One can add pictures to the tasks to illustrate the question and make it clearer; create video questions by making a link to a video from YouTube in the task; work on the test with colleagues to collect all the tasks faster. To do this, Google Forms has a collaboration mode. While the teacher is collecting one question, his colleague can work on another.

One can change the design to make a test more attractive, add a title cover to the test, change the color of the buttons and the font. There are 8 types of tasks available from choosing one correct answer to an essay question in which the student writes his thoughts on a given topic.

There are opportunities to place evaluation criteria for the test: how many points a student needs to score in order to pass the test. The service will automatically check the answers and put a mark in the log. The teacher may not waste time on this. One can set testing dates, when the specified period passes, the test will be unavailable. In case of an error, the test will show the correct answer. This will help the student understand the issue and consolidate the material. The option can be disabled if necessary. However, it is not possible in Google Classroom to limit the response time and number of attempts, penalize errors, or start shuffling questions so that each student displays them in random order.

In Google Classroom, one can post an assignment, which is a question with an open answer, so that the student writes his own thoughts on a given topic. Such a task will have to be checked manually. It will be easier for the student to prepare if a file is added to each task: a document, video or presentation.

Google Classroom is connected to the Google Meet video meeting service. One can conduct live discussion lessons with it. Video meetings can be scheduled in the calendar, which is a single control panel for all online broadcasts. The teacher can show a presentation to illustrate his speech and reinforce the key points in the students' memory. Google Meet has a chat for communication, in which students can ask questions to the teacher, exchange opinions, or just chat. The number of webinars is not limited; one can conduct as many broadcasts as you need. Up to 100 people can attend one meeting. If the listener wants to ask a question, he can write it in the chat. It is not possible to mute students in settings as there is no such option in Google Classroom, but the teacher can ask students to mute their microphones at the start of a meeting.

The developers simplified the Google Classroom interface as much as possible so that people without technical skills could get used to it: teachers, students. At the beginning of work, the service suggests how to create a course, schedule a video meeting or testing.

Design options are limited. However, one can choose a cover for the course from those offered, but there is no option to change fonts, background color or buttons. The main course page is a communication feed. The teacher can write announcements and students can ask questions or leave comments. One can attach a document, video, or picture to a message. Violators of the educational process can be banned so that they do not spam in the news feed and disrupt the educational process.

One can write private messages in the general feed, which will be seen only by the students for whom they are intended. A student can write a personal letter directly from the service to give detailed feedback, praise or sort out mistakes.

Analytics in Google Classroom provides a big picture of learning. All information is publicly available from the average performance of the group to the progress of a particular student. According to the reports, the teacher sees what materials the students passed, what score they got for a separate task or the course as a whole, what mistakes they made in the test. Students see their progress: what score they scored for the course, how well they passed the test or completed the task. Google Classroom has a mobile app for iOS and Android. Through it, students can correspond in the feed, take courses and tests. Teachers can create training programs, check homework and assign grades. Visually impaired people can also work in the provided for them special service, for example, VoiceOver is created for iOS devices, and TalkBack is created for Android.

However, learning opportunities are limited. Google Classroom allows one to create courses that are more like electronic textbooks: with text lectures, video tutorials, presentations, tests, and assignments. In this virtual box office, it will not be possible to create a course with game elements, a dialogue simulator for developing communication skills, or an interactive video. At the same time, the capabilities and advantages of this service described above make it possible to successfully solve the problems of teaching students a foreign language, and if necessary, work with additional options, one can start a virtual class on another educational platform. In particular, the educational platform Vimbox is very useful, on which lessons are held with a teacher. It integrates not only calls with video and good quality, but also interactive exercises of any possible format. The Moodle distance learning system is also a free analogue of Google Classroom. The functionality is wider. In particular, there is a general gradebook and the ability to create interactive courses. However, the platform is technically complex.

A more convenient option is the iSpring Market system. In terms of ease of management, it is similar to Google Classroom. At the same time, one can create educational games and simulators on it, there is a built-in social network for communication, webinars, and even the ability to sell courses.

We agree with V.V. Verkhoturova and believe that the most obvious in the use of online learning within the university are the prospects for organizing independent work of students on its basis. Independent work of students, which is understood as the planned work of students, carried out according to the assignment and methodological guidance, both in contact with the teacher and in his absence, is an integral part of the educational process at the university. The already formed understanding that the training of qualified specialists in their fields, ready for constant professional growth, is impossible without independent work skills, greatly contributes to the popularization of online learning[26].

New global events are often a tipping point for rapid innovation, and the emergence of virtual online learning after COVID-19 is a clear confirmation of this. It remains to be seen whether distance learning will continue on its current scale post-COVID-19, but the transformation that has already taken place will certainly reshape the global education sector in the future.

DISCUSSION AND CONCLUSION

To sum up, the flipped classroom is a technology of distance learning, in which the participants of the learning event and the teacher have the opportunity to communicate, transfer and analyze information using the Internet or corporate information systems. In the virtual classroom, all kinds of face-to-face activities are modeled, and analytical tools used in e-learning (data exchange, feedback, teamwork, assessment and analytics, etc.) can be added. To implement the flipped classroom technology, both integrated electronic platforms and a combination of various solutions for individual functions can be used. Currently, Google Classroom is the most convenient free e-platform for teachers and students, but there are other e-platforms that are useful in teaching a foreign language, if the capabilities of Google Classroom are not enough. Podcasts as audio files (audio lectures) that can be listened to online on the Internet or downloaded to a mobile device (desktop computer) are useful means to develop university students' sociocultural competency. Podcasts have great didactic potential in the study of foreign languages due to their authenticity, relevance, versatility, media competence, multi-channel, interactivity, ability to increase motivation and provide an individual approach to learning. Cultural approach is very effective in applying within the framework of the pedagogical technology "flipped classroom". In particular, the teacher can select a wide variety of podcasts on special educational platforms that will reflect different cultural aspects of the life of native English speakers. Moreover,

podcasts in the “flipped classroom” that help develop listening skills, which, as a rule, are the least developed among students. At the same time, nowadays more experiments are required in this area, so that later it would be possible to develop on their basis complex methods of developing listening skills among students studying a foreign language in linguistic and non-linguistic universities

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