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Distance learning in the era of COVID-19. The innovative approach in teaching aviation English

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Abstract

We offer virtual learning environments that students from Moscow Aviation Institute can log into outside of fixed classroom hours to take advantage from virtual courses to improve aviation English. The following techniques will help to progress: the flipped classroom model where there should be a way to share that content with students beforehand so that lesson time can be used for discussion, debate, questions, and guided activities. A delivery system for multimedia courses such as a learning management system (LMS) is used to offer teachers the chance to design and execute assessment exercises online. We use of a digital whiteboard to invite virtual guest lecturers from all over the world into the classroom using video chatting software such as Skype, ZOOM and Microsoft Teams. These platforms show great results in getting new information from scientists and experts in aviation. Run multiple activities concurrently that can sometimes be difficult to manage different ability levels within the classroom, thus, teachers can utilize online tools to offer different activities according to students' knowledge. By using multimedia courses resources this way, lecturers can set different groups of students up with different tasks. This paper includes the analysis of Distance Education learning course, particularly at the bachelor's level, in addition to the fact that these results face the current need to change face-to-face postgraduate courses to distance format, this change is due to the circumstances of isolation and home confinement.

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Keywords

Aviation English, COVID-19, distance learning, flipped classroom, LMS.

Introduction

With the rise of online technology, the modern classroom is changing – and one of the biggest changes is blended learning. Nowadays blended learning as a new model for organizing the educational process in higher educational establishments and it attracts the attention of many researchers, professors and teachers all over the world and has become extremely popular especially this year due to the coronavirus pandemic.

Blended learning can be defined as the mixing of face-to-face teaching and online learning. Students have some choice over where they study (at university, at home or somewhere in between) and when they study (during university hours, in the evening or on weekends). But it is still the professor who decides the extent of the choice, as well as which elements of the student's education are completed online, and which elements are completed in the class.

The increasing popularity of distance learning is defined by present conditions, coronavirus pandemic and that's why it leads to different changes like social and economic in every sphere and in the society. Of course it affects the demands for students of higher educational institutions. Highly qualified professionals and specialists with opportunity of continuous professional and personal development are required.

However, the spread of COVID-19 has led to the closure of educational institutions all over the world. Pandemic has accelerated the development of the online learning environments within those institutions so that learning would not be disrupted. The coronavirus pandemic has tested the readiness of centers to deal with a crisis and it needs online and remote measures. Many were not prepared to study distantly. But our Moscow Aviation Institute (National Research University) is a success, as shown by a set of changes in educational process.

The first information about the COVID-19 pandemic occurred in Russian media on January 31, 2020. After confirmation of the first positive patients with COVID-19 on the territory of the Russian Federation, the Central Crisis Staff was established. Its task was and still is to monitor the situation and to take action to stop spreading disease between the RF's population. From Monday, March 24, 2020 all nursery schools, primary schools, secondary schools, universities, and all free-time clubs and spaces were closed for two weeks.

In this phase of development of the situation, distance education was not necessary since professors gave students homework for two weeks. Since the situation has not improved and new epicenters started to occur, another decision was taken. All types of schools, colleges, institutes, and universities had to be in distant form, because it was impossible to guess the course of the pandemic in Russia. Universities continued to educate, take exams, and final state exams in distant forms till the end of June.

The unexpected change from a present form of education to a distance posed a great challenge for teachers as well as students. Professors from Moscow Aviation Institute (MAI) have been using university educational portal LMS for last several years. Never it was used as the only form of education since the education of students in normally performed offline. It was used only in addition to further explain issues with which students get acquainted in lectures, exercises, and seminars.

From April 2020 our university started to use a delivery system for multimedia courses such as a Learning Management System (LMS) that offers professors the chance to design and provide quality assessment exercises online. In this paper a group of education specialists (that considers both pedagogical issues and the institutional mission and vision) offers virtual learning environments that students from Moscow Aviation Institute can log into outside of fixed classroom hours to benefit from many of the advantages of virtual courses to improve aviation English. The following techniques will

help to progress: the flipped classroom model where there should be a way to share that content with students beforehand so that lesson time can be used for discussion, debate, questions, and guided activities [Beketova et al., 2020, www].

Use of a digital whiteboard to invite virtual guest lecturers into the classroom using video chatting software such as Skype, ZOOM and Microsoft Teams shows great results to get new information from scientists and experts in aviation. Run multiple activities concurrently that can sometimes be difficult to manage different ability levels within the classroom, thus, teachers can utilize online tools to offer different students' different activities according to their knowledge. Lecturers set different groups of students up with different tasks using multimedia courses resources this way.

Problem

Amplification of the distance education theory subsists in new standards and it provides the progress of different new technologies, including a blended learning with flipped classroom technology. Let's try to give a definition of the term "blended learning", so it means an educational technology embodied in combination of the full-time (in class one) and electronic/online education. This is a "blending combination" of the face-to-face system and modern digital form of education [Krasnova, 2015, www].

Modern graduates of our university should not cram the theoretical material, but they have to apply it in practice by searching for the ways to do it. Students do not have to be "filled" with knowledge for the rest of their lifetime, but they should find, analyze, and acquire new information in aviation when they need it. In other words, there is a transition from "education for life" to "lifelong learning" which is understood as continuous and self-motivated search of knowledge for different purposes either professional or personal. The concept of lifelong learning contributes to the professional and personal growth of students as future specialists. [Veledinskaya, Dorofeeva, 2014, 8].

The fusion of new modern ICT technologies support blended learning system as one of the future methodologies into the development of the higher educational process. The integration of ICTs empowers teachers and learners, transforming teaching and learning processes from being highly teacher-dominated to student-centered [Trucano, www]. The learning potential of information and communication technologies and their suitability for students suggest them a lot of advantages, for example to study anytime and anywhere they want.

The history of "flipped class" as the crucial element of blended learning system appeared in 2000 in the works of American professors Jonathan Bergmann and Aaron Sams [Bergmann, Sams, 2012]. Classroom activities and homework are reversed in this technology. This course must be remodeled totally online in the social restrictions due to isolation caused by coronavirus pandemic. All lectures and exercises were moved to a virtual environment. All the tasks online in class are dedicated to fulfilling practical exercises and discussing the major topics and questions with the professor in Microsoft Teams or Zoom. Theory aspects are studied by students by their own with the help of watching video lectures recorded by the professor in LMS program or different other websites after classes.

According to syllabus, every week a recorded video of lectures and audio recordings from the exercises are published. There was a redistribution of points within the course and introduction of new "weekly activities". Almost each lecture and exercise are followed with an assignment for which students have 7 days to solve. During the semester, teachers are available to students through forums, emails, chats, and video consultations using a variety of tools. That is how we change the term "the

flipped classroom technology" into "the flipped online classroom technology".

The present paper aims to evaluate the efficiency of the flipped online classroom technology implementation in the educational process in teaching and learning the aviation English language at the technical university (MAI).

This article concentrates on the description of the flipped online classroom (due to coronavirus pandemic). It also describes practical achievements of the mentioned above technology into the process of the aviation English language teaching at Moscow Aviation Institute.

Literature review

In our literature review we tried to represent the education approach of blended learning model (on the example of the flipped classroom technology) and its application in practice. First basic detail description of the new flipped classroom model as a pedagogical one we can find in the works of Bergmann and Sams. For example, in their book "Flip your classroom: reach every student in every class every day" these authors tried to compare the amount of time spent on learning activities in the traditional non-distance full-time model of education and in flipped classroom. The comparison showed that in the flipped classroom much more time is devoted to practical and creative activities instead of studying the theoretical material (75 minutes versus 35 minutes) [Ibidem].

Before basic Bergmann's description, another group of scientists (in 2000) wrote about the fruitful success of this technology, and attracted our attention to the key issues of the flipped classroom. Their research was continued in the article "A new approach to language instruction – flipping the classroom" written by Muldrow. He wrote about great adaptions by teacher and students that were very important moving from the traditional, model of education to the flipped classroom one [Muldrow, 2013, 28].

The researches about the ICT study and flipped technology usage by the lecturers are described in the works of V. Bykova, O. Chernysheva, A. Evseeva, I. Gavrilova, D. Gladkikh, Y. Ilyina, N. Ishkhanova, L. Litonina, V. Oliinyk, N. Prudnikova, N. Prykhodkina, A. Slepteryova, O. Yelnykova, etc.

Against all other previous studies, we insist on further investigation, because there is no works, that overview this new technology on the point of view of flipped classroom model for teaching and learning especially aviation English at the technical higher institutions.

Methodology of research

The technical university (MAI) provides effective ways to teach and study languages, the aviation English language in particular, with a very effective method - the flipped classroom technology (online due to the COVID-19 pandemic). During our research we analyzed the scientific literature, our lecturers studied flipped classroom technology at the lessons and while the preparation for the classes, we analyzed the data and conducted surveys.

We may underline the following research objectives:

- we should pay great attention to the advantages of the flipped classroom in COVID-19 pandemic;
- we have disclosed the efficiency of the flipped classroom in teaching and studying the aviation English language;
- We spread the idea of the flipped classroom technology in the process of teaching aviation English.

In our research we used the scientific work written by famous scientists: the use of information and communication technologies for educational purposes [Kleiman, 2004, 248], blended learning concepts

[Sharma, Barrett, 2007], theory and methods of teaching foreign languages [Holmberg, Shelley, White, 2005].

Concept of reversed classroom (flipped classroom technology)

The educational process is organized in the following way that students attend face-to-face classes and they already have some theoretical knowledge and understanding of the matter that will be discussed in the classroom. It is called FLIPPED CLASSROOM. Giving these classes the teachers make their students to feel more comfortable, they push them to ask questions, to feel more confident in discussions, and active in asking questions and discussing the issues with the professor and groupmates that in the long run gives the positive effect on efficiency and brings more fruitful work. In flipped classroom the attention is devoted to discussions and groupwork instead of monotonous lectures. They prefer to participate in creating their own product based on theoretical knowledge given beforehand [Papadopoulos, Santiago-Román, Portela, www].

Consequently, homework becomes flipped as well. Students want to understand some crucial issues better, trying hard to make their home assignments and sometimes find it impossible to get the teachers' attention. Home assignments are rarely fulfilled by students in this case but flipped classroom technology tends to solve this urgent problem with the help of the teacher who provides the link to electronic resources. Students work in the e-learning environment individually or in online groups, where they make projects, discuss significant issues on various topic, designing their own activity. The teachers share the video lectures, give tasks on comprehension listening and do a lot of exercises via additional learning resources. Forums and webinars, as well as chats are introduced. Students continue working with the electronic course even after classroom activities. The teachers let the students to evaluate not their own work but also to assist the teacher and at the end of the semester they have a continuous assessment.

Teachers plan the lesson carefully to achieve greater results in teaching using flipped classroom technology and while integration the distinction between face-to-face activities and individual students' work is vanished. The roles of the professor and students are significantly changed in the flipped classroom.

In the flipped classroom, students have opportunities to control their own learning. They study even better when they choose their own pace while having access to resources on the net. The offered curriculum can be achieved by a continuous access to online materials. If necessary, they get online assistance from the professor or peers via chats and forums and webinars, performing their task regularly or not, depending on health or other circumstances.

Collaboration among students due to mutual projects and group work. Is encouraged in the flipped classroom. As a result, the engagement of students is higher comparing to offline learning and providing peer-to-peer assessment, giving feedback to the works of their group mates motivates them to study harder. It is a psychological phenomenon to teach teamwork and collaborate in order to cooperate and assess each other in different ways [Marsh, 2012].

One of the urgent problems nowadays is to motivate students and to increase their responsibility to study better in new circumstances of COVID-19 pandemic, to manage their time wisely, choose the appropriate sources to get new information, to be directed by the teacher and, of course, to be self-directed and motivated in acquiring autonomous learning skills. From our point of view, the role of students in the educational process has changed a lot and is still changing. Sum, our students have become active participants of the educational process now. From our point of view in this case students

are like creators of the learning process, but not the consumers of what the professor gives them [Sharma, Barrett, 2007].

The professor's role in the flipped classroom is different. The teacher acts as a facilitator of helping find new information, helps to acquire new skills and getting knowledge and the teacher, therefore, needs to help students be more responsible and motivated for their learning. Some students do not have an experience and the teacher also must guide them to work autonomously to gain time-management skills to make their learning process more efficient.

As far as it is distance learning the students perform a lot of e-learning activities in the flipped classroom where the teacher's role is considered to create a friendly and open atmosphere to help the students interact in a proper way, participate in discussions, to assist in making projects, to moderate online activities not leading them. You can see the different roles of a teacher. He acts as a motivator, he performs guidance, monitors progress, makes students be more confident and, of course, maintains motivation [Marsh, 2012]. We can observe close interaction between the teacher and the students since new roles have been established.

Any students at any university have different levels of language competence and Moscow Aviation Institute is not an exception to the rule. The students definitely need a different period of time to learn theory and do practical assignments. The teacher allows the students to choose their own tempo, speed, and the volume of the theory and practical assignments, lets students to study comfortably and solve this problem in the flipped classroom. Speaking skills in communicative approach competence is necessary to master via online discussions, forums, webinars, and chats and students from MAI successfully cope with the new approach.

We think it's impossible to contradict the existence of challenges to be wade through for the successful implantation of the flipped classroom technology into the educational process. As far as nowadays electronic courses are considered to be urgent, it takes a lot of time and effort of the teacher (professor, lecturer) to record a lecture, find supplementary resources, develop learning materials. Once the electronic course is worked out, fulfilled, and implanted into the teaching and learning process, we are able to conduct research and methodological work [Korotaeva, 2020, www].

We observe some stages in education process where teaching and learning processes are inseparably connected via the components of electronic means and classroom activities. The teacher prepares the material, inspires and motivates students and checks their fulfilled assignments on regular basis or students check the tasks themselves.

How to increase students' motivation? Implement all these settings to raise students' motivation, as a result the efficiency of learning process will be higher, and the acquired knowledge will bring some fruit in the near future. The survey conducted in Moscow Aviation Institute showed that some students do not accept the substitution of face-to-face classes with e-learning teaching. They are concerned about live communication with the professor and peers in the language laboratories of the University. We explain to students the concept itself and attractive features of the flipped classroom technology. Different types of progressive teaching techniques are used to communicate online via chats, forums, and video conferences.

The flipped class technology implementation

Educating teachers competent in modern language teaching methodology is one of the priority goals of Institute No. 10 of Foreign Languages at Moscow Aviation Institute (National Research University). A.V. Kuznetsova and G.V. Ryabkova, associate professors at Linguistics and Translation

Department at MAI, are active promoters of using new educational technologies in teaching and training future specialists in aviation sphere. We believe that if students experience benefits of language learning using interactive techniques, such as 'flipped classroom', they will be more likely to use modern methodology in the future.

Second-year-students of the Institute No. 3 of Management Systems, IT and Electricity at MAI were engaged in this technology studying the aviation English language course. The standard duration of a university lesson is only 90 minutes. This time is obviously not enough for students to understand new language material, especially for those who lack some basic knowledge of the language from previous school years. We should acknowledge that some students are able to understand new topics immediately, when the majority needs more detailed explanation.

So, we can state that the development of information technologies makes it possible to "flip" the educational process. Students attended face-to-face online classes (using video chatting software such as Skype, ZOOM and Microsoft Teams), 50% of which were replaced by activities on the Learning Management System Moodle. Moodle is widely developed e-learning environment, providing a lot of benefits for professors and students such as a variety of tools for studying and communication, flexibility of use, technical support, low cost and others. Students' work was organized in e-learning environment. Before face-to-face online classes, students watched short video lectures concerning the topic of the lesson to get to know the subject, studied additional on-line resources given by the teacher, posed questions for discussions in forums and peers or the teacher answered them. Traditional blocks such as active vocabulary, learning grammatical modules, or initial training are completely removed from face-to-face lesson with the professor. These topics are passed to the tasks of the student's own responsibility. This is the very peculiarity of our model. To this end, different computerized educational resources with cognitive and meta-cognitive styles were available for students. In our model face-to face synchronous classes with the professor are meant to take to pieces the least understood material (the grammatical and lexical phenomena that caused difficulties), to consolidate the thoroughly studied material and practice language skills. At the end of such kinds of lessons students also perform creative essay or storytelling.

Face-to face synchronous classes (online due to the coronavirus pandemic) were devoted also to making presentations and reports, and discussing the most important issues to notify the students' individual work. After face-to-face online classes, students assessed the work of their peers, checked their knowledge of the material, did tests and shared their opinions on the lesson. All these activities involved work on the Moodle platform.

Findings and discussion

At the end of spring 2019/2020 semester we undertook the study, the survey to find out students' opinions on the flipped classroom technology use for learning aviation English at MAI. We did not take the aspect of students' motivation into account since English is a mandatory subject and is not the specialty of these learners. Let us highlight the most interesting results received.

About 130 students took part in our survey. According to our survey, 67% of the students appreciated in general the idea of the flipped classroom technology, 12% of the respondents were not inspired by this technology because of the problems they faced with like their unwell to work in a team, while others cannot estimate it right now. Students experienced working with the electronic course the following difficulties: problems with the Internet access, lack of time for completing online assignments, difficulty with self-discipline to organize their work properly.

80% of the students believe that teachers have adapted well their assignments to the given situation (assignments can be done at home and at any time); 7% disagree with this statement and the rest cannot estimate.

98% of the students emphasized the main advantage of the course: an availability of the e-learning materials for free. It is especially urgent and actual during the pandemic. 75% of the respondents commended the capacities to communicate, study and collaborate in the e-learning platform (environment).

Conclusion

To conclude, we can state that one of the new approaches such as flipped classroom is a promising technology which should not be underestimated, especially nowadays. We can't deny ourselves a pleasure of emphasizing that the integration of the flipped classroom into the educational process led to an increase of students' motivation for studying foreign languages, particularly in aviation sphere. Also, we want to stress that such technology had a positive impact on students' self-discipline and self-directedness. The reason is in the student's own responsibility for their learning. Although the number of face-to-face classes is decreasing due to COVID-19 pandemic, the quality of the giving and getting knowledge process does not suffer.

Of course, the proficiency level of professors should be very high. And the implementation of most approaches to teaching foreign languages depends on this competence. Training teachers in these skills is time consuming, which, combined with natural staff churn, creates a risk of the approach not being consistently applied and will prove to be ineffective. To extend the requirements for teachers would be a factor of instability of the approach application. Another factor of instability is an eventual inconsistency between the principles of the approach and the cognitive processes of some language students. The implementation of new technologies will include a training period, and obviously, a period of resistance by teachers to change, for after an extensive time, we will be able to evaluate the consequences of that change.

The results of the survey (the questionnaires and tests conducted during the experiment) showed that the improvement of students' academic performance is taken into consideration, proved the effectiveness of the "flipped classroom" approach (the quality and variety of active and interactive assignments, speech activity of students in the classroom, their perfection of competencies, internal motivation of students and the professor, their satisfaction with the educational process). We point out the advantages of the «flipped classroom» technology revealed during the experiment:

– students have some choice over where they study (at university, at home or somewhere in between) and when they study (during university hours, in the evening or on weekends);
– more effective use of classroom time;
– more active students;
– self-study work supervised by a lecturer;
– good teamwork;
– more creativity for students;
– teaching 21st century skills;
– easier differentiation with more time to work with individual students in class, teachers find they can better differentiate their teaching to suit individual needs, answering student questions and giving individual feedback;
– independent completion of tasks of the levels "knowledge" and "understanding" by students at

home and collective working out of tasks of the levels “application”, “analysis”, “synthesis” and “assessment” in the online classroom;

– effective self-control and self-assessment of learning outcomes; learning variability;
– use of the potential of personalized, collaborative and web-based learning;
– formation of the sense of success and progress in students;
– efficiency and ergonomics of the educational process in the classroom;
– very important technology for students with physical disabilities;
– better prepared students;
– less paperwork;
– better informed parents.

For further methodical research we recommend a set of assignments to organize the “flipped classroom” for students that can form the basis and be used in teaching a foreign language to students of other bachelor’s degree programs. Thus, we recommend conducting similar investigations with a larger scope, in both sampling and duration, to corroborate the current findings and increase their potential generalizability.

However, there are still some technical and organizational challenges that make the integration of the flipped classroom technology in the teaching and learning process complicated. To overcome these challenges, we need further research to create a new learning environment based on the technology of flipped classroom.

Time has come and not only for an institution or country, an educational change has come with the urgency of transitioning from face-to-face classes to remote classes since the COVID-19 pandemic, in the year 2020. A change that covers the entire education sector, from basic levels to postgraduate level, both in large cities and remote towns, of education provided by the state and private education, a change that occurs overnight, changes the model face to face at a distance.

References

1. Beketova E., Leontyeva I., Zubanova S., Gryaznukhin A., Movchun V. (2020) Creating an optimal environment for distance learning in higher education: discovering leadership issues. *Palgrave communications*, 6 (1). Available at: https://www.nature.com/articles/s41599-020-0456-x [Accessed 07/10/20].
2. Bergmann J., Sams A. (2012) *Flip your classroom: reach every student in every class every day*. Arlington: ISTE.
3. Bransford J., Brown A., Cocking R. (2000) *How people learn: brain, mind, experience, and school*. Washington: National Academy Press.
4. Evseeva A., Solozhenko A. (2015) Use of flipped classroom technology in language learning. *Procedia – social and behavioral sciences*, 206, pp. 205-209.
5. Fulton K. *Upside down and inside out: flip your classroom to improve student learning*. Available at: http://files.eric.ed.gov/fulltext/EJ982840.pdf [Accessed 07/10/20].
6. Holmberg B., Shelley M., White C.J. (eds.) (2005) *Distance education and languages*. Clevedon: Multilingual Matters.
7. Kleiman G. (2004) Myths and realities about technology in K-12 schools: five years later. *Contemporary issues in technology and teacher education*, 4 (2), pp. 248-253.
8. Korotaeva I.E. (2020) Interactive computer technologies in the educational process. *International journal of advanced trends in computer science and engineering*, 9 (2). Available at: http://www.warse.org/IJATCSE/static/pdf/file/ijatcse06922020.pdf [Accessed 07/10/20].
9. Krasnova T.I. (2015) Vozmozhnosti elektronnogo obucheniya v nepreryvnom obrazovanii [Possibilities of distance education in lifelong learning]. *Molodoi uchenyi* [Young scientist], 6. Available at: https://moluch.ru/archive/86/16330/ [Accessed 07/10/20].
10. Malyuga E., Ponomarenko E.V. *Distance teaching English for specific purposes*. Available at: https://mgimo.ru/upload/iblock/ecc/ecc9eb50cb8b0372762f0b17d014098a.pdf [Accessed 07/10/20].
11. Marsh D. (2012) *Blended learning. Creating learning opportunities for language learners*. Cambridge University Press.
12. Muldrow K. (2013) A new approach to language instruction – flipping the classroom. *The language educator*, 11,

pp. 28-31.
13. Papadopoulos C., Santiago-Román A., Portela G. *Working in progress – developing and implementing an inverted classroom for engineering statics*. Available at: https://www.researchgate.net/publication/224207006_Work_in_progress_-_Developing_and_implementing_an_Inverted_Classroom_for_Engineering_Statics [Accessed 07/10/20].
14. Park M. *Innovative assessment of aviation English in a virtual world: windows into cognitive and metacognitive strategies*. Available at: https://www.cambridge.org/core/journals/recall/article/innovative-assessment-of-aviation-english-in-a-virtual-world-windows-into-cognitive-and-metacognitive-strategies/0F3D58DD2B9A27A8D1CA885715B2475B [Accessed 07/10/20].
15. Popova T.P., Nenasheva T.A. (2016) Informatsionnye tekhnologii v obuchenii inostrannym yazykam v vuze (model' smeshannogo obucheniya) [Information technologies in teaching foreign languages in a higher school (blended learning)]. *Istoricheskaya i sotsial'no-obrazovatel'naya mysl'* [Historical and social-educational ideas], 8 (6-1), pp. 218-226.
16. Sharma P., Barrett B. (2007) *Blended learning*. London: Macmillan.
17. Trucano M. *Knowledge maps: ICT in education*. Available at: https://www.infodev.org/infodev-files/resource/InfodevDocuments_8.pdf [Accessed 07/10/20].
18. Veledinskaya S.B. (2013) Smeshannoe obuchenie (blended-learning) i ego vozmozhnye perspektivy v TPU [Blended learning and its possible prospects in Tomsk Polytechnic University]. *Sbornik trudov Nauchno-metodicheskoi konferentsii "Urovnevaya podgotovka spetsialistov: gosudarstvennye i mezhdunarodnye standarty inzhenernogo obrazovaniya"* [Proc. Conf. "Layered training of specialists: national and international standards of engineering education"]. Tomsk, pp. 105-106.
19. Veledinskaya S.B., Dorofeeva M.Yu. (2014) Smeshannoe obuchenie: sekrety effektivnosti [Blended learning: secrets of efficiency]. *Vysshee obrazovanie segodnya* [Higher education today], 8, pp. 8-13.
20. Yurina M.V., Lopukhova Yu.V. (2017) Primenenie innovatsionnoi tekhnologii "perevernutyi klass" pri obuchenii inostrannomu yazyku v tekhnicheskom vuze [The use of the innovative flipped classroom technology in foreign language teaching at a technical university]. *Samarskii nauchnyi vestnik* [Samara journal of science], 6 (4), pp. 262-266.

Модель «перевернутый класс» как инновационная модель дистанционной формы обучения авиационному английскому языку в эпоху COVID-19

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Аннотация

В мировой практике прослеживается тенденция изменения традиционных форм образовательного процесса в сторону его большей информатизации. Московский авиационный институт предлагает студентам давно используемую на практике виртуальную учебную среду LMS, в которую они могут войти вне установленного расписания и воспользоваться виртуальными курсами для улучшения авиационного английского языка, а также видеочаты, такие как Skype, ZOOM и Microsoft Teams. При выполнении виртуальных

интерактивных заданий, специально подготовленных преподавателями английского языка, для оценки авиационного английского языка используются различные когнитивные, метакогнитивные и коммуникативные стратегии, которые неукоснительно приводят к формированию когнитивных и метакогнитивных навыков, приводящих к положительным результатам тестов. При этом внимание акцентируется на модели «Flipped Classroom» («Перевернутый класс»), основная идея которой заключается в «перевороте» образовательного процесса: обучающийся вместо прослушивания аудиторных лекций изучает теоретический материал в домашних условиях, используя компьютер и Интернет для получения доступа к научным материалам и онлайн-лекциям, а аудиторное время посвящается усиленной практике и отработке полученных дома знаний. Данная модель дает возможность в полной мере реализовать «компетентностный подход» благодаря увеличенному количеству времени на практическое применение знаний в аудитории, получить «метапредметные результаты», сформировать универсальные учебные действия благодаря возможности обучающихся изучать теоретический материал дома, что позволяет задействовать и развивать критическое и творческое мышление, умения по поиску, работе и обработке информации, которые являются необходимыми в современном информационном обществе.

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Ключевые слова

Авиационный английский, COVID-19, дистанционная форма обучения, модель «перевернутый класс», LMS.

Библиография

1. Велединская С.Б. Смешанное обучение (blended-learning) и его возможные перспективы в ТПУ // Сборник трудов Научно-методической конференции «Уровневая подготовка специалистов: государственные и международные стандарты инженерного образования». Томск, 2013. С. 105-106.
2. Велединская С.Б., Дорофеева М.Ю. Смешанное обучение: секреты эффективности // Высшее образование сегодня. 2014. № 8. С. 8-13.
3. Краснова Т.И. Возможности электронного обучения в непрерывном образовании // Молодой ученый. 2015. № 6. URL: https://moluch.ru/archive/86/16330/
4. Попова Т.П., Ненашева Т.А. Информационные технологии в обучении иностранным языкам в вузе (модель смешанного обучения) // Историческая и социально-образовательная мысль. 2016. Т. 8. № 6-1. С. 218-226.
5. Юрина М.В., Лопухова Ю.В. Применение инновационной технологии «перевернутый класс» при обучении иностранному языку в техническом вузе // Самарский научный вестник. 2017. Т. 6. № 4. С. 262-266.
6. Beketova E., Leontyeva I., Zubanova S., Gryaznukhin A., Movchun V. Creating an optimal environment for distance learning in higher education: discovering leadership issues // Palgrave communications. 2020. Vol. 6. No. 1. URL: https://www.nature.com/articles/s41599-020-0456-x
7. Bergmann J., Sams A. Flip your classroom: reach every student in every class every day. Arlington: ISTE, 2012. 100 p.
8. Bransford J., Brown A., Cocking R. How people learn: brain, mind, experience, and school. Washington: National Academy Press, 2000. 374 p.
9. Evseeva A., Solozhenko A. Use of flipped classroom technology in language learning // Procedia – social and behavioral sciences. 2015. Vol. 206. P. 205-209.
10. Fulton K. Upside down and inside out: flip your classroom to improve student learning. URL: http://files.eric.ed.gov/fulltext/EJ982840.pdf
11. Holmberg B., Shelley M., White C.J. (eds.) Distance education and languages. Clevedon: Multilingual Matters, 2005.

360 p.
12. Kleiman G. Myths and realities about technology in K-12 schools: five years later // Contemporary issues in technology and teacher education. 2004. Vol. 4. No. 2. P. 248-253.
13. Korotaeva I.E. Interactive computer technologies in the educational process // International journal of advanced trends in computer science and engineering. 2020. Vol. 9. No. 2. URL: http://www.warse.org/IJATCSE/static/pdf/file/ijatcse06922020.pdf
14. Malyuga E., Ponomarenko E.V. Distance teaching English for specific purposes. URL: https://mgimo.ru/upload/iblock/ecc/ecc9eb50cb8b0372762f0b17d014098a.pdf
15. Marsh D. Blended learning. Creating learning opportunities for language learners. Cambridge University Press, 2012.
16. Muldrow K. A new approach to language instruction – flipping the classroom // The language educator. 2013. Vol. 11. P. 28-31.
17. Papadopoulos C., Santiago-Román A., Portela G. Working in progress – developing and implementing an inverted classroom for engineering statics. URL: https://www.researchgate.net/publication/224207006_Work_in_progress_-_Developing_and_implementing_an_Inverted_Classroom_for_Engineering_Statics
18. Park M. Innovative assessment of aviation English in a virtual world: windows into cognitive and metacognitive strategies. URL: https://www.cambridge.org/core/journals/recall/article/innovative-assessment-of-aviation-english-in-a-virtual-world-windows-into-cognitive-and-metacognitive-strategies/0F3D58DD2B9A27A8D1CA885715B2475B
19. Sharma P., Barrett B. Blended learning. London: Macmillan, 2007. 160 p.
20. Trucano M. Knowledge maps: ICT in education. URL: https://www.infodev.org/infodev-files/resource/InfodevDocuments_8.pdf