THE POSSIBILITIES OF APPLICATION OF ONLINE SERVICES IN THE HIGHER EDUCATIONAL SYSTEM

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ABSTRACT

The transformation of teaching methods, caused by changes in the lifestyle of the young generation in a rapidly developing world, leads to the need of choosing the most effective services for the implementation of the educational process by teachers based on the personal capabilities and needs of the modern world.

This article examines the main characteristics and possibilities of using the most popular online educational platforms today (like Padlet, Mentimeter, Kahoot, Online Test Pad and QuizBot) in economic universities. Here their description and qualities are presented in terms of the practicality of their application for organizing interactive work with student teachers.

The authors of the work propose ways to introduce online tools in the process of teaching economic disciplines and assessing the assimilation of materials by students, as well as stimulating their independent activity. Along with this, judgments are made about the rationality of using some of the capabilities of the presented interactive educational platforms and proposals on the prospects for improving the quality of pedagogical activity in this area.

Keywords: online platforms, higher education, platform functionality, ICT, interactive learning, economic education, information culture.

INTRODUCTION

In today's conditions, information and communication technologies demonstrate their relevance in all spheres of human activity, and one of these areas is education. Taking into account the trends of the modern world and its threats, as well as the interests and way of thinking of the current generation, teaching methods require innovative changes at all stages. Thus, university education, aimed at developing students' professional skills, has the potential to introduce and successfully apply various tools for interactive information exchange between students and teachers. The number of universities has grown significantly over the past decade, which has caused high competition among educational institutions. So the main criterion for choosing a particular university is the quality of its teaching, and one of the ways to increase this indicator is to introduce online tools into the learning process. [1]

This article aims to explore the possibilities of effective use of the most popular online platforms and ways to use them in teaching economic disciplines. Objects explored here include Padlet, Mentimeter, Kahoot, Online Test Pad and Quiz Bot.

As part of a comprehensive study of the qualities of the presented online tools, the following tasks are set by the authors of the article:

— consider the functions and feasibility of the purposes of the presented educational platforms;

— to study ways of organic introduction of online platforms, as well as to assess its importance in the education system in the direction of "Economics" and related disciplines;

— compare the benefits of all programs and highlight the most versatile of them;

— identify the necessary conditions for the most productive activities of both teachers and students.

ANALYSIS OF SCIENTIFIC LITERATURE

The possibilities of using distance education tools have been actively studied by experts over the past decade. Thus, Srisawasdi, Niwat and Sornkhatha, Prapaporn (2014) found that interactive learning allows students not only to increase their level of understanding of the issue being studied, but also to retain the acquired knowledge for a long period of time. At the same time, the integration of this teaching method with intermediate assessment of students, the effectiveness and necessity of which was previously proved by Black P. and Wiliam D. (1998), helps students to eliminate the gap between the existing and acquired knowledge of science. In addition, the joint use of interactive learning and assessment mechanisms in the teaching process improves the quality of decisions used by teachers, which also leads to a more active implementation of online education tools (Srisawasdi, N., Panjaburee, P., 2015).

Researchers have different attitudes towards the idea of "mobile learning", as for some it is only a means of teaching, while for others it is a separate concept, consisting of such aspects as the use of modern technologies, the mobility of students and the possibilities of learning itself (El-Hussein and Cronje, 2010) .

Panjaburee, P., & Srisawasdi, N. (2015) stressed in their paper that developing countries, however, need to pay sufficient attention to both the introduction of modern technologies and the improvement of pedagogical methods for the comprehensive improvement of the quality of education.

RESEARCH METHODS

Experts began to study actively the impact of independent education using online technologies during the pandemic, when education around the world switched to distance learning and there was an urgent need to assess the quality of education, including the higher education institutions.

The critical situation in the health sector has necessitated the sudden introduction of distance learning systems, which up to this point had raised doubts on the part of both teachers and students. Foreign experts note that the difficulties in using these technologies were caused by the low digital literacy of teachers, the problems of inequality and the lack of access for potential users to them. It is believed that the promotion of digital education will be able to eliminate negative attitudes towards this format and change ideas about this educational model. [2]

In addition, experts in the period before the coronavirus crisis found that university students prefer an education format in which they can independently find the necessary information and conduct self-assessment, rather than receive data in the traditional lecture form. [3, p. 285-317] In order to effectively study the work of the online platforms indicated in this paper, at the initial stage, they are axiomatically accepted as the most popular systems of distance education among university teachers. Further, on the basis of practical experience, the capabilities of each tool are evaluated, as well as their quality indicators both for the creators of products on the platforms and for users. The next step is to compare the factors of interest and abstract some of the unique service options. After an additional study of the advantages of introducing modern technologies in economic education, a judgment about the means of their rational and promising application is distinguished by the inductive method, in view of the fact that some scientists argue that a complete transition to learning, in which only the student is an active participant, can lead to negative consequences. [4]

RESULTS AND DISCUSSION

Despite the fact that the given online educational services under consideration (Padlet, Mentimeter, Kahoot, Online Test Pad and Quiz Bot) differ in purpose and application, they are all fairly well-known tools around the world for obtaining a continuous stream of data and assessing the level of students' knowledge. The distinctive advantages of online educational tools include the implementation of personalized learning for students in accordance with their individual needs. [5]

And despite the fact that each of the presented systems is quite effective in its field of application, however, the table below proves that not all online educational tools are equally comfortable to use.

Table 1

Comparison of the characteristics of the most popular online educational services in the world

Platform / Function	Padlet	Mentimeter	Kahoot	Online Test Pad _	QuizBot
Format	Website/ Appendix	Website/ Appendix	Website/ Appendix	Website	Chatbot
Mobile app size	27 MB	24 MB	39 MB	-	-
Russian-language interface	Partially	Not	Not	There is	There is
Free version limitations	Yes	Yes	Yes	No	No
Subscription cost	$3-5/ mo $30-50/year	$ 12-25/ mo	$ 3-9/mo $36-108/year	-	-
Create a new account	Not necessary	Not necessary	Not necessary	Necessarily	-
Number of app downloads[1]	5+ million	1+ million	50+ million	697055[2]	-

Obviously, the above educational platforms are available in an online format, i.e. do not require downloading an additional application on a mobile phone or PC. Despite this, the available

[1]Presented the number of app downloads on Google Play for October 2022
[2]Presents the number of users registered on the site Online Test Pad service . Source: https://onlinetestpad.com/

applications are quite popular among users, and it can be argued that the small amount of memory occupied by these applications is one factor in this result, since none of them exceeds the size of 50 MB. At the same time, the Online Test Pad platform has only a web version, which may be the reason for its relative unpopularity. It must be remembered that the table shows data on the number of downloads of Padlet, Mentimeter, Kahoot without users working only on their sites, while the data on the number of people registered in the Online Test Pad covers their entire audience. Due to the fact that QuizBot is one of the tools of the Telegram messenger, it is impossible to obtain objective data on the number of users using this chatbot.

Along with this, it is the Online Test Pad and QuizBot that have a number of advantages that make them stand out in the list of presented online platforms.

Firstly, both services are presented in Russian, which makes them popular in the Russian-speaking segment of users of interactive educational tools. This also applies to Padlet , but in this case its purpose is somewhat different than that of the previous two platforms.

Secondly, Online Test Pad and QuizBot are both absolutely free and do not have any restrictions associated with the need to pay a subscription to expand the functionality of these services, as happens with Padlet, Mentimeter and Kahoot. Although Telegram offers a Premium subscription, its absence does not affect the performance of the QuizBot chatbot in any way. At the same time, in the free version of Padlet , for example, the number of works that can be created for free is limited, as well as the number of participants and teams with available question type in Kahoot, and the number of slides in one presentation in Mentimeter. Moreover, it is Mentimeter, which differs from its competitors precisely in that it evaluates the performance of the entire surveyed group, and not each individual separately, sets the highest price tariffs for a month of use (on average, about 3 times higher than those presented in the table) and at the same time does not offer better terms, say, when paying for the year.

On the other hand, it is the services that offer paid subscriptions for use that have a huge practical advantage, which is the ability to use the online platform without creating a new account, but only with the help of an account registered on a third-party service.

So, with the help of a Google account, one of the largest services in the world, you can enter any of the three platforms presented (Padlet, Mentimeter and Kahoot), while thanks to Apple and Microsoft accounts you can use the Padlet and Kahoot services (the latter also offers Clever login) and Facebook users can log into Mentimeter without any problems. This significantly saves time spent on authorization on the platforms and at the same time frees users from the need to create a new account in the server. It turns out that logging in with an external account takes up to 30 seconds, while full registration takes about 2-3 minutes, depending on various factors.

Due to the absence of this option in the Online Test Pad, which additionally requires confirmation of the email address, the time spent on registration on this platform increases tenfold. Considering the fact that this confirmation letter from the site arrives within 24 hours from the moment of registration on the service, it can be argued that the first authorization here takes about a day.

The process of getting started is much easier in the QuizBot chatbot, because it does not require any registration and authorization, you just need to click the "Start" button and from that

moment work on creating testing will begin. Obviously, this is the simplest and fastest of all the methods presented.

Thus, it can be noted that not all online services can be rationally used by teachers during classes and to check the assimilation of the material covered, however, even services with the largest set of positive qualities cannot provide practicality and complexity in teaching, so it is necessary to consider in detail the purpose of each of them., on the basis of which it will be possible to draw conclusions about the ways to effectively use the presented online tools in the process of teaching economic sciences. It is this approach that will help determine the properties and qualities of each service, related not only to their technological novelty, but also to check their compliance with pedagogical principles and criteria, which will make it possible to fully use the educational potential of these online tools. [6, p. 667-671]

Padlet

The Padlet network service (-let is an English diminutive suffix, pad - is one of the meanings of "notebook, tablet") is one of the most popular online whiteboarding tools today. This tool allows students to publish their work for further commenting and evaluation by the teacher. And those, in turn, can submit educational, methodological or any other materials in electronic form on a common board. Most often, an online board is used to organize teamwork, and the obvious advantages here include the ability to change the design, work in real time, and download various files from media and from the Internet. [7, p.148-149]

Virtual board of the Padlet system allows you to organize the work of a group of people regardless of location, remotely edit the created object, exchange information on a given topic and collect all the necessary information in the form of a canvas, a continuous feed, a blog, columns, and so on. Thus, the results of collecting and processing data on a given question by students, their ideas and examples can be comprehensively presented to the teacher, evaluated, and subsequently applied and downloaded again by the students themselves to repeat and consolidate the material covered. In other words, the whiteboard in Padlet is a repository for files of any format related to a particular topic, which can replace notes and traditional forms of creative group work. In addition, this service provides the ability to conduct a survey, comment and respond to work in the form of likes, votes and ratings by all users.

The undoubted advantage of this platform is its ease of use. The creator of the wall only needs to register, click the "Create Padlet" button, decide on the design (or choose a ready-made template). Further, users can double-click to add their messages to the already created board, as well as attach images, video and audio files, presentations, and so on. With one more click in any free area of the board, the created message is saved automatically, and if necessary, it can be easily moved to any part of it.
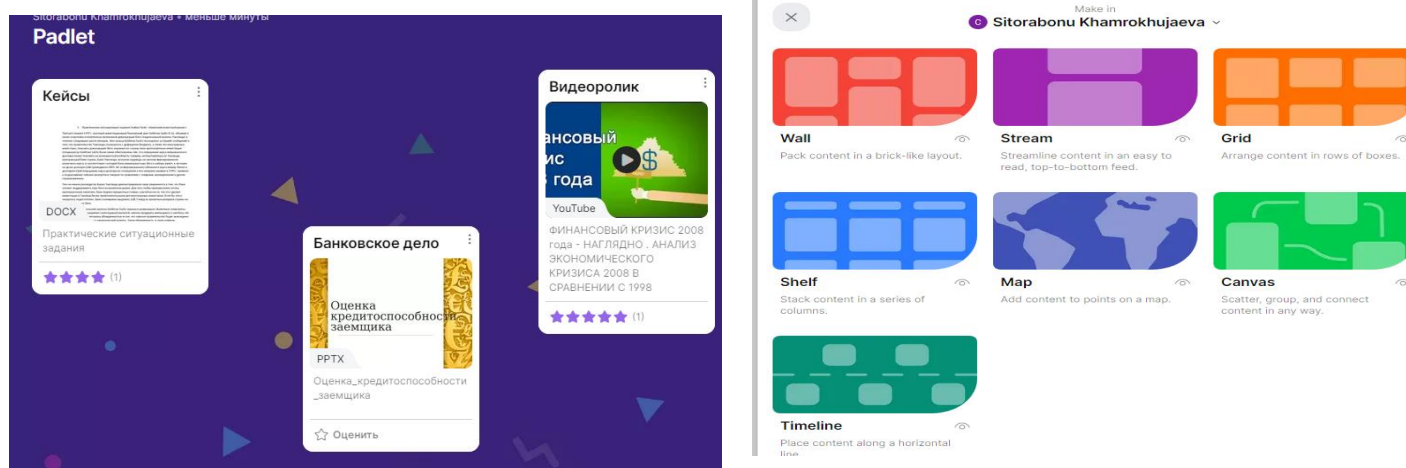
Pic.1 Creating a virtual whiteboard in Padlet

Mentimeter

Mentimeter is a cloud-based service that allows you to conduct polls and votes and present the results in real time in an interactive presentation format. Mentimeter provides the ability to instantly display summary results based on the responses of each group member. This is the practical benefit of this service, because it allows you to interview all students in the shortest possible time and at the same time gives the teacher an idea of the general level of assimilation of materials by students. This is a fairly successful company, which is considered one of the fastest growing [8] , so the number of people who have used this platform at least once in their lives reaches more than 280 million people.

Thanks to various types and forms of visualization of questions, the platform facilitates not only the process of reviewing the topic covered, but also brainstorming, voting, quizzes or studying the opinions of students regarding a certain aspect of the topic. At the same time, the service allows you to show one presentation to people who speak different languages, because for each of them it can be translated.

The advantages of this online tool include a wide choice of question format (various templates), the ability to change the design, reaching a wide audience, instant feedback , the ability to receive a report and analytics on the work done, access to download files and images, and much more.

This online tool is also easy to use. The creator of the presentation only needs to select the Create presentation button on the taskbar and give it a name. To add slides, select Add slides on the left, and select the question type on the right (multiple choice, word cloud, open-ended questions, scale, rating, etc.
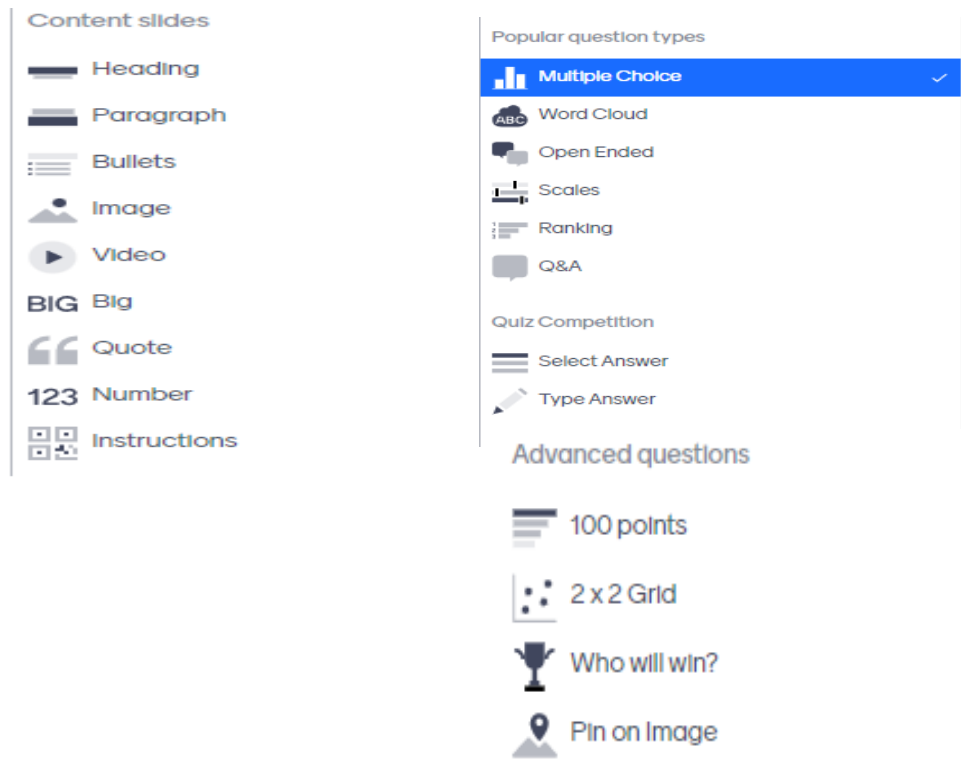
Pic. 2 Types of Questions in Mentimeter Interactive Presentation

In addition to the fact that work in Mentimeter is carried out in real time, the service provides the ability to set a deadline for completing a survey. Interestingly, only the creator of the interactive presentation needs to register, while participants can simply follow the link and enter the code, or scan the QR code that the platform automatically generates and answer questions , i.e. responses are collected anonymously, which positively affects the quality and transparency of the survey. In the process of conducting it, the creator of the presentation broadcasts the results of the vote on the screen of the audience, while each of the respondents answers individually from their mobile device.
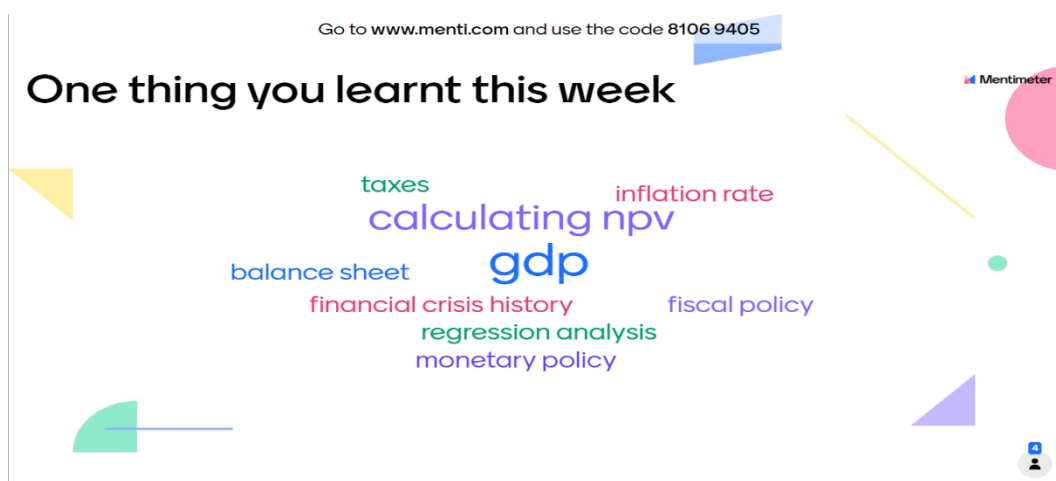

Pic.3. An example of voting in Mentimeter

Kahoot

Kahoot is one of the most famous online quiz platforms. Participants are invited to answer questions within the allotted time, depending on the time spent and correctness, appropriate points are given. After each question, the rating of the participants changes, which arouses the interest of the students. At the end, the nicknames of the winners appear on the podium. Most often, this service is used synchronously, which is more preferable among students. [9, p. 955-961]

To create a quiz on this platform, you must register, where you can optionally provide detailed information about yourself. By clicking on the " Create " button on the panel, the option to select the type of job is provided. Next, a detailed title page is filled in and the creation of the quiz itself begins directly. To do this, select the buttons "Add question", Next and at the end Save. Thanks to the "Preview it" function, the creator of the question bank has the opportunity to check the correctness of the quiz and practice before the performance. To complete the game, participants need to go to the site using the link, enter a pin code and their nickname, so they can participate without registering on the platform.
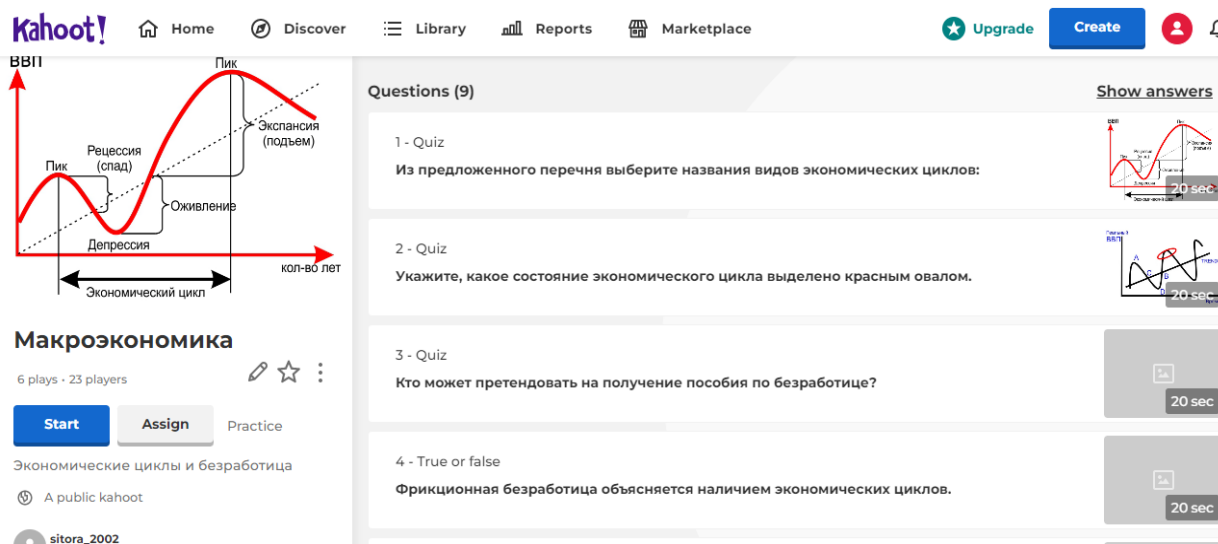
Pic.4. An example of a created quiz in Kahoot

The service offers different types of questions depending on the purchased tariff:

1. Quiz (like multiple choice), where from two to four possible answers are given and there may be more than one correct;
2. True\False, in which there are only two answers: true and false;
3. Puzzle - its essence lies in the correct order of the answers presented;
4. Open-ended, requiring the participants to independently enter the answer in the submitted field ;
5. Poll - voting, similar to the function provided by Mentimeter ;
6. Slide show , which is the usual slide show today
7. and others.

Pic. 5 Comparison of features provided by paid versions of Kahoot subscription
(Source: https://kahoot.com/upgrade/pro-tip-study/?deviceId=13d39ce4-5ad5-4110-82cb-a1b9d87f9772R&sessionId=1665862646861&lang=ru-RU , 2022)

In addition, the platform is a good self-study tool for students, because the program offers features such as Flashcards (you must answer the question yourself, and then click and flip the card to check your answer) and Practice (it is very similar to testing, but without a timer, which makes it possible to reflect, remember the correct answer and work out the mistakes).

Online Test Pad

This Internet service is aimed at individual assessment of students' knowledge by solving various tasks, which are not limited to solving tests and answering questions. Here, participants are also offered crossword puzzles, filling in gaps, interactive dictation, a "slider", finding matches, making words from letters and phrases from words, establishing sequences, and so on. [10, p.45]

To create tasks on the service, you need to register and wait for a confirmation letter within a day, then you can start the process of creating, for example, a test. To do this, a series of data is filled in the Dashboard, a Widget is created and configured to open access to the test. In the process of its creation, you can choose different formats of questions, edit them. You can also configure the issuance of a certificate to test participants, which, in turn, is a hallmark of this platform.
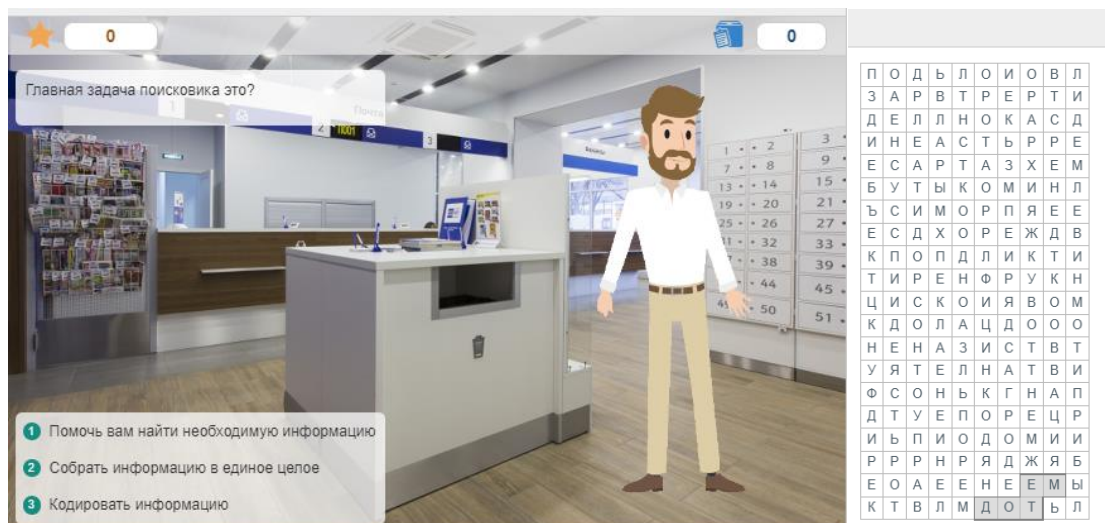
Pic.6. Examples of tasks in the Online Test Pad (multiple-choice question on the left and crossword on the right)

On the positive side of this platform, we can note the full reporting and analytics of the participants' answers, the independence of the assessment of participants (individual assessment, not relative), the ability to download the created tests for printing, as well as the ability of the account creator to observe the gradebook, progress, task schedule and much more. [11, p.111-112] In general, the service is very multifunctional, but this causes a number of difficulties when creating tasks, despite the fact that the entire platform is available in Russian, in contrast to the previously described educational online platforms

Pic.7. An example of the "Statistics" section of a test created in the Online Test Pad (the table includes the information about the percentage of respondents answered correct/incorrect on each question)

Quiz Bot

QuizBot is a special program created for the Telegram messenger, the essence of which (like any bot) is to instantly issue a response to the command selected by the user. The popularity of this online tool lies in the fact that it does not require any additional accounts, equipment or funds to create and use it. According to research, the Telegram messenger is today one of the most popular distance learning services, both for teachers and students. [9, c.955-961]

The smartphone is the most common gadget today, so doing the back in the chatbot does not cause problems for users. Creating a test is as easy as taking it. You just need to perform the actions requested by the bot in turn, and print the question itself as a regular message, you can add an image if you wish. Clicking the Create button will pop up the question in the QuizBot chat window. At the end, the bot will present the entire test on the screen for review and correction. Additional functions of the bot include: setting a timer for passing the test and randomly presenting questions to the user. [12, p.441-442]
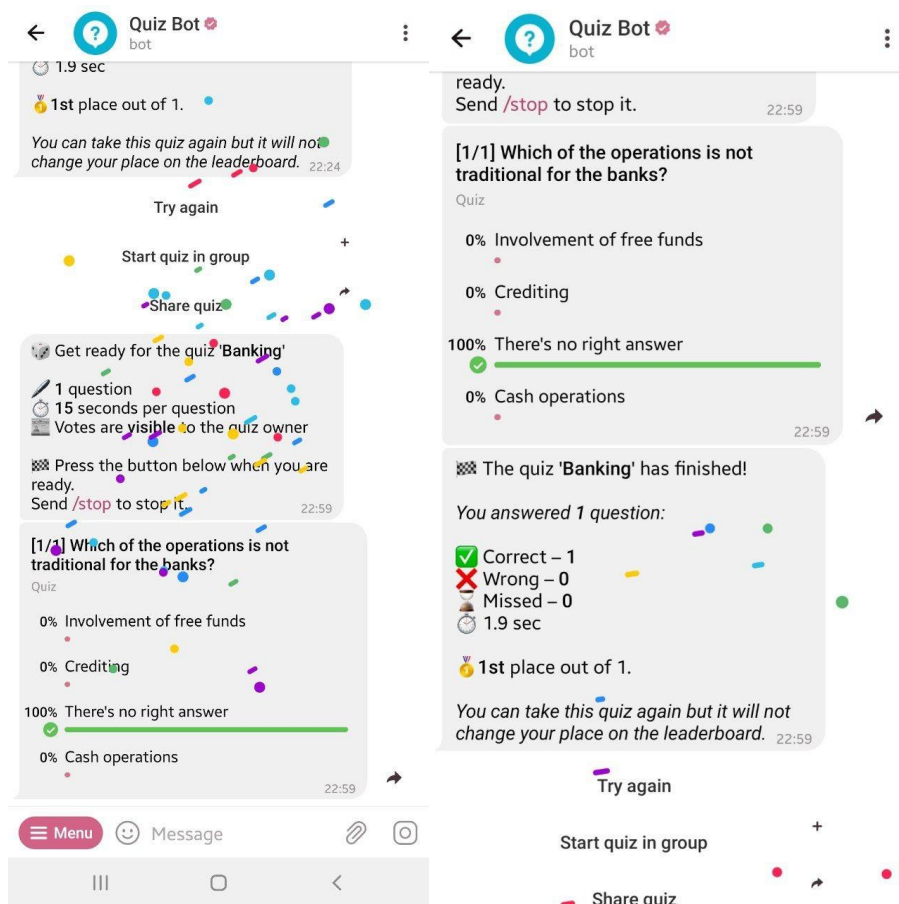
Pic. 8. An example of passing the test in the QuizBot chatbot

Today, when a person cannot imagine his life without a mobile phone and the Internet, the level of involvement of students in the educational process and the quality of its conduct become extremely important for teachers. It is to create favorable conditions when students can realize their potential, and teachers cover the entire audience and evaluate each student in the shortest possible time, modern information technologies provide a wide range of tools for conducting interactive classes.
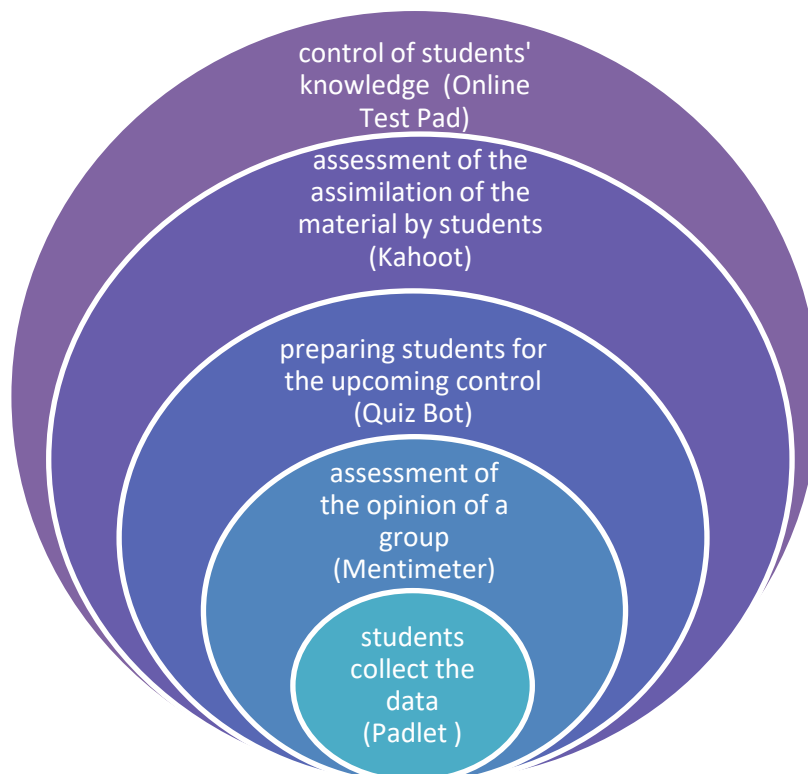
Fig. 1. Stages of interactive learning in higher education using online platforms

A qualitative comparison of the characteristics of all the mentioned educational services proves that today there is no single universal tool for organizing interactive work, so it is necessary to select a specific service in each individual case. So, Padlet is best suited for collecting information and visualizing it, Kahoot for comparing the level of mastery of the material between students, Mentimeter for determining the opinion of the entire group of respondents, Online Test Pad for monitoring the level of knowledge of each respondent and analyzing the field of scientific data, and QuizBot for preparing students for an upcoming exam or organizing a short intermediate test during class.

CONCLUSION

Thus, the organization of teaching economic and other disciplines can be successfully modernized thanks to the introduction of information and communication technologies, among which online services and platforms can play a leading role.

The online platforms Padlet, Mentimeter, Kahoot, Online Test Pad and QuizBot discussed in this article offer various options for working with the audience, and due to the different focus of each of them, a complex and combined use of all the services presented is necessary. Depending on the form of the lesson (lecture, independent work, intermediate and final control, and so on), students should be offered various types of tasks, and the appropriateness of using one or another tool of remote education depends on them. Economic education, which mainly includes the social sciences, the humanities and the exact sciences, is unable to prepare future qualified personnel without innovative methods for coordinating the learning process.

At the initial stage, the use of online tools can cause some difficulties for both teachers and students. To overcome them, task creators need, first of all, to familiarize themselves in detail

with the capabilities of each of them, as well as complete registration and configure the created objects in the format they need. At the same time, students should be ready to work on these platforms, not only in terms of sufficient training on the topics discussed, but also in terms of readiness to unlock their creative potential and comply with the moral, communicative and informational culture.

So, all of the above confirms the high efficiency and the need to use the presented and other online services in teaching economic disciplines. According to the authors of the article, the trend towards their widespread implementation can lead to a complete transition to the organization of some types of work in a remote format, including in terms of exams, competitions and other integral elements of assessing the quality and depth of students' knowledge.

REFERENCES:

1. Neda Jalaliyoon, Hamed Taherdoost, Performance Evaluation of Higher Education; A Necessity, Procedia - Social and Behavioral Sciences, Volume 46, 2012, pp. 5682-5686, ISSN 1877-0428, URL: https://www.sciencedirect.com/science/article/pii/S1877042812022331

2. José María Fernández-Batanero, Marta Montenegro-Rueda, José Fernández-Cerero, Pedro Tadeu, Online education in higher education: emerging solutions in crisis times, Heliyon, Volume 8, Issue 8, 2022, e10139, ISSN 2405-8440, URL: https://www.sciencedirect.com/science/article/pii/S240584402201427

3. K. Struyven, F. Dochy and S. Janssens Students' likes and dislikes regarding student-activating and lecture-based educational settings: Consequences for students' perceptions of the learning environment, student learning and performance European Journal of Psychology of Education, 23(3) (2008)

4. Elisabeth Fischer, Martin Hänze, Back from "guide on the side" to "sage on the stage"? Effects of teacher-guided and student-activating teaching methods on student learning in higher education, International Journal of Educational Research, Volume 95, 2019, Pages 26-35, ISSN 0883-0355, URL: https://www.sciencedirect.com/science/article/pii/S0883035518316823

5. Chen, X., Xie, H., Zou, D., & Hwang, G.-J. (2020a). Application and theory gaps during the rise of artificial intelligence in education. Computers and Education: Artificial Intelligence, 1, Article 100002

6. Rafael Seiz-Ortiz, Ana Gimeno-Sanz, Jose Macario de Siqueira, Appraisalweb: an online platform for the pedagogical evaluation of Web-based Language Learning Resources, Procedia - Social and Behavioral Sciences, Volume 15, 2011, ISSN 1877-0428, URL: https://www.sciencedirect.com/science/article/pii/S1877042811003405

7. Galkina, E. A. Possibilities of the Padlet network service for organizing group work of students in order to increase their motivation for learning // Problems of modernization of educational programs during the transition to updated federal state educational standards (FSES HE 3++) based on professional standards: XLV scientific and methodological conference of teachers, graduate students and employees, Samara, 2018. - P. 147-153. – EDN YOIZZB

8. Internet resource: https://startpack.ru/application/mentimeter

9.   Raihana Md Saidi, Anis Afiqah Sharip, Nurul Zahirah Abd Rahim, Zuhri Arafah Zulkifli, Siti Maisarah Md Zain, Evaluating Students' Preferences of Open and Distance Learning (ODL) Tools, Procedia Computer Science, Volume 179,2021, ISSN 1877- 0509, https://doi.org/10.1016/j.procs.2021.01.085   .URL: https://www.sciencedirect.com/science/article/pii/S1877050921001162

10.   Dronova E. N. Internet service Online Test Pad as a teacher's tool for creating computer tests // Education. Career. Society, no. 1 (64), 2020, p. 44-46.

11.   V. M. Eremina, E. I. Kholmogorova, D. O. Eremin Using the Online Test Pad platform as a means of electronic testing in foreign language classes in distance learning // Uchenye zapiski Zabaykalskogo gosudarstvennogo universiteta. - 2021. - T. 16. - No. 1. - S. 108-117. – DOI 10.21209/2658-7114-2021-16-1-108-117. – EDN PQSGSB.

12.   Boda L. A. Telegram chatbot as a tool for creating tests for formative control // Foreign languages: innovations, prospects for research and teaching [Electronic resource]: materials of the IV Intern. scientific-practical. conf., dedicated 100th anniversary of Belarus. state un-ta, Rep. Belarus, Minsk, March 26-27, 2021 / Belorus. state un- t; editorial board: E. A. Prigodich (editor-in-chief) [and others]. - Minsk: BGU, 2021. - S. 439-443

13. Srisawasdi, Niwat & Sornkhatha, Prapaporn. (2014). The effect of simulation-based inquiry on students' conceptual learning and its potential applications in mobile learning. International Journal of Mobile Learning and Organization. 8.28-49. 10.1504/IJMLO.2014.059996.

14. Black, P., & William, D. (1998). Assessment and classroom learning. Assessment in Education, 5(1), 7–74.

15.   Srisawasdi, N., Panjaburee, P. Exploring the effectiveness of simulation-based inquiry learning in science with integration of formative assessment. J Comput. Educ. 2, 323–352 (2015).

16.   El-Hussein, MOM, & Cronje, JC (2010). Defining mobile learning in the higher education landscape. Educational Technology & Society, 13(3), 12–21.

17.   Panjaburee, P., & Srisawasdi, N. (2018). The opportunities and challenges of mobile and ubiquitous learning for future schools: A context of Thailand. Knowledge Management & E-Learning, 10(4), 485–506.