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## INTERACTIVE ONLINE GOOGLE JAMBOARD: ADVANTAGES OF USAGE

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*The article is devoted to the opportunities of usage of the Google Jamboard interactive online board. The advantages of the Google Jamboard interactive whiteboard include visibility, interactivity, the ability to quickly save, copy, edit and configure file sharing, the presence of many slides (frames) in one file, a user-friendly interface with buttons to cancel the last actions, availability for usage on most smart devices (laptop, netbook, tablet, smartphone, etc.). It is possible to use interactive quizzes, where the first slide briefly described a clinical case (problem) in relation to a separate pathology, and the second demonstrated the answer to the task questions and comments on them. Repetition of the material in the form of such a business game with the simulation of real cases allows teachers to increase the interest of students significantly, activate their memory and clinical thinking, and increase their professional competences.*

**Key words:** distant learning, interactive tools, cloud service, the Google Jamboard interactive online board.

### Introduction.

Changes in society and the world always pose new challenges to pedagogy and teachers, making them use the latest teaching methods and improve the already existing ones. The pandemic provoked by the disease COVID-19 and the forced implementation of a strict quarantine regime caused the transition of higher educational establishments in Ukraine, including medical ones, to distant learning. In the period of distant learning, teachers of medical higher educational establishments have been actively looking for interactive tools, mainly online applications and cloud services, the use of which would create teaching conditions close to the usual face-to-face educational process. The military aggression against Ukraine and hostilities in many regions forced higher education establishments to use distance learning in even more difficult circumstances of scattered students and teachers, deterioration of Internet connection, and the availability of many participants in the educational process only to portable devices. But is it possible to use modern online technologies for ordinary everyday teaching without the need for significant costs for technical equipment of the premises and providing the teaching staff with additional smart devices?

### Main part.

During distant and blended learning at Donetsk National Medical University,



teachers of the Department of Pediatrics, Neonatology and Children's Infections constantly used the Google Jamboard interactive online board as one of the teaching tools. In order to evaluate the prospects for further use of the online Google Jamboard not only in conditions of distant and mixed learning, but also in conditions of face-to-face education, we decided to analyse the main advantages and disadvantages of this tool, the possibilities and methods of using it in the pedagogical process (especially while teaching medical disciplines), as well as to conduct a questionnaire among students and teachers on relevant issues.

The advantages of the Google Jamboard interactive whiteboard include visibility, interactivity, the ability to quickly save, copy, edit and configure file sharing, the presence of many slides (frames) in one file, a user-friendly interface with buttons to cancel the last actions, availability for usage on most smart devices (laptop, netbook, tablet, smartphone, etc.).

Significant possibilities for visualization allow you to use the Jamboard online board not only as an analogue of a regular board, but it also gives the opportunity to increase the visibility of teaching significantly. On the online board, you can not only draw geometric shapes, formulas, arrows, but also type printed text, insert ready-made notes and images, do exercises for matching. For each element, a choice of size and color is available, a convenient laser pointer is built into the interface.

The online whiteboard file can contain up to 20 slides (frames) with unique content, all the actions with the file are saved automatically, the interface allows editing in real time. The teacher has the ability to set up shared access for students to the board file with viewing and editing options, which allows you to make the board file a fully interactive element for all the participants of the educational process.

Thanks to the listed features of the Google Jamboard interactive whiteboard, it can be used by a teacher of a higher school in many teaching projects and scenarios. It can be a visualization of the main information and important aspects to remember during the lecture on the screen or a ready-made flowchart to consolidate and integrate the acquired knowledge during practical classes. In our teaching practice, original graphs of logical structures were also highly effective, which were used by students during self-studying work with educational material and they were a kind of "map" for students so that they would not miss the most important components of the subject of the lesson. At the same time, concise and structured information was available to students in a convenient form at any time and on almost any smart device, which has had a positive effect on the students' motivation to study and work independently in their free time.

If we talk about the specifics of using the online Google Jamboard when teaching medical disciplines, then this cloud service has additional opportunities for use. At our department, to consolidate the acquired knowledge, we used interactive quizzes, where the first slide briefly described a clinical case (problem) in relation to a separate pathology, and the second demonstrated the answer to the task questions and comments on them. Repetition of the material in the form of such a business game with the simulation of real cases allows teachers to increase the interest of students significantly, activate their memory and clinical thinking, and increase their professional competences.



During the acquisition and practice of practical skills, the teachers of the department actively used schematic drawings on the interactive board (location of auscultation points, pain points, sequence and direction of palpation and percussion, etc.), as well as step-by-step (post-slide) algorithms of practical skills and providing emergency care. Increased visibility and a clearly visualized sequence of actions allow teachers to stimulate associative memory and significantly increase the effectiveness of practice and reduce the time necessary for mastering skills.

However, any tool and technique has its drawbacks. Certain disadvantages of using the Google Jamboard interactive online board in the educational process include the technical equipment requirements of the teacher and students: the presence of smart devices (computers, laptops, tablets) and the need for an Internet connection. It is recommended to use Google Workspace for Education corporate accounts for the most efficient use of all the features of the board, but getting the basic package of this cloud-based software for education is currently free. At the same time, the implementation of this service in an educational institution does not require its own server capacity, which significantly reduces requirements and costs. The most convenient interactivity for learners is achieved with the use of tablets, projectors and stationary interactive screens of large size, but this is optional and not mandatory material equipment.

In our time, almost every student and teacher constantly carries a smartphone, which is, in fact, a portable computer with a fast connection to the Internet via the 4th generation mobile network. Most smartphones have enough power and screen size for comfortable work with an interactive online whiteboard at any time and in any place without additional equipment requirements. This makes it possible to implement teaching tools and methods using the Google Jamboard interactive board not only into the process of distant and blended learning, but also in face-to-face training, including medical establishments of higher education. And the advantages of using it in the educational process by far outweigh the disadvantages.

To verify our observations, we conducted a survey of students and teachers by means of an anonymous questionnaire. A total of 300 students and 40 teachers were interviewed. According to the results of the survey, the majority of students - 93% (279 people) positively assessed the use of the interactive online Google Jamboard board in the educational process, of which 63% (189 respondents) assessed the use of the board as very effective, and 30% (90 students) - as quite effective. With regard to certain aspects, the advantages of using the blackboard were attributed by the students to clarity (88%, 264 respondents), effectiveness for consolidating practical skills (85%, 255 respondents), convenience when repeating the material (80%, 240 respondents) and the possibility of using it for self-preparation (60%, 180 people). Teachers were more conservative: 70% (28 teachers) positively assessed the use of the interactive online board, 30% (12 teachers) assessed the use of the board negatively, or they did not use it in teaching at all. At the same time, 45% of teachers (18 people) consider the use of the blackboard to be very effective while teaching, and 25% (10 respondents) consider it rather effective. To the advantages the teachers refer visibility (70%, 28 people), effectiveness for consolidating practical skills (65%, 26 respondents) and interactivity (60%, 24 teachers). 80% of students (240



respondents) and 55% of teachers (22 people) have a positive attitude to the use of the online board during face-to-face education.

### **Conclusion.**

Therefore, the experience of using it in the educational process and the results of the survey of students and teachers indicate that the interactive online board Google Jamboard can be effectively used both in conditions of distant and blended studying and in face-to-face education, including medical educational establishments.

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**Анотація.** Щоб оцінити перспективи подальшого використання онлайн-дошки Google Jamboard не лише в умовах дистанційного та змішаного навчання, а й в умовах очного навчання, було вирішено проаналізувати основні переваги та недоліки цього інструменту, можливості та методи його використання в педагогічному процесі (особливо при викладанні медичних дисциплін), а також провести анкетування студентів і викладачів з відповідних питань.

До переваг інтерактивної дошки Google Jamboard можна віднести наочність, інтерактивність, можливість швидкого збереження, копіювання, редагування та налаштування спільногодоступу до файлів, наявність багатьох слайдів (кадрів) в одному файлі, зручний інтерфейс з кнопками скасування останньої дії, доступність для використання на більшості розумних пристрій (ноутбук, нетбук, планшет, смартфон тощо).

Значні можливості для візуалізації дозволяють використовувати онлайн-дошку Jamboard не тільки як аналог звичайної дошки, але й дають змогу значно підвищити наочність викладання. На онлайн-дошці можна не тільки малювати геометричні фігури, формули, стрілки, а й набирати друкований текст, вставляти готові записи та зображення, виконувати вправи на встановлення відповідності. Для кожного елемента доступний вибір розміру і кольору, в інтерфейс вбудована зручна лазерна указка.

Файл онлайн-дошки може містити до 20 слайдів (кадрів) з унікальним вмістом, усі дії з файлом зберігаються автоматично, інтерфейс дозволяє редагувати в режимі реального часу. Викладач має можливість налаштувати загальний доступ студентів до файлу дошки з можливістю перегляду та редагування, що дозволяє зробити файл дошки повністю інтерактивним елементом для всіх учасників навчального процесу.