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**APPLICATION FEATURES OF
EDUCATIONAL QUESTS IN THE
FORMAT OF BLENDED LEARNING
IN HIGHER EDUCATIONAL
ESTABLISHMENTS**

ABSTRACT

In the process of work with students (post-graduate students, interns, teachers), the application of interactive forms of work has proven its effectiveness and relevance. At the same time, we should expand the methodological diversity of the interactive, involve such forms of work that best as possible meet the needs of the blended learning format.

Quest as an interactive technology has many advantages – from a collective goal setting, definition of a strategy of movement to coordinated performance of intermediate tasks, search for substantiations and presentation of a collective decision. The main thing is that there are no obstacles to the realization of the educational quest, such as online or offline, because the help comes from the interactive board Miro.

The purpose of the work is to substantiate the peculiarities of the application of the educational quest as a game technology in blended and distance education with the goal of deepening the motivation of students of higher education institutions of Ukraine, in particular medical ones; to intensify scientific research activities, to improve interaction in groups and teams, to promote the development of clinical thinking and communicative competence.

Research methods. Theoretical (processing of the source base) and empirical (development and implementation of didactic quests in educational activities) research methods were used in the work. Due to the combination of these components, the expediency of application of quest-technologies in a blended form of education in higher education institutions is substantiated.

Conclusions. Thanks to the involvement of quests, those who study will not only save motivation, but they will also structure, renew, update the acquired knowledge for further professional growth.

Quests do not require students to be physically present in the classroom, and under the condition of a proper organization (script, route sheets for teams), the final result of their conducting in the format of blended education (through ZOOM, MIRO, another online platform for group work) is quite high.

It is also interesting to note that quests in the form close to the competition, provide the opportunity to carry out summative and formative assessment, which is extremely important for monitoring the quality of knowledge.

The application of educational quests in higher medical education with the involvement of interactive online boards opens up the opportunity to provide active interaction of subjects of training in conditions of a blended format.

During the quest, the teacher performs the functions of a moderator, since organizational moments and the working atmosphere during group communication depend on him, as well as possible help in the form of vector direction (if the discussion has reached a dead end), and substantiation of the final results.

KEYWORDS: *interactive forms of education; quest-technologies; educational quest, on-line board Miro, assessment, medical education*

INTRODUCTION

The relevance of the work is conditioned by the search for and substantiation of new methods and technologies of training in the conditions of modern civilizational challenges, military aggression initiated by the country-terrorist Russia. At this time, it is important not to lose, but to develop and multiply the powerful scientific and methodological training potential of competitive specialists in higher education institutions of different levels of accreditation and forms of ownership; to take care of the deepening of educational motivation, to help students overcome stress (from constant anxiety for themselves, their relatives, close and familiar people), find internal resources for lifelong personal growth. The preferential choice of a blended form requires all subjects of education to adjust to mastering of new educational technologies, to expand their palette, choosing the most effective ones in accordance with the specifics of the training of specialists of a certain profile. At the same time, we are increasingly able to analyse the methods of teaching that have been popular over the past decade, focusing on their compliance with other educational realities – blended and distance learning.

An active approach in education is not new. It provides an emphasis on the formation of students' abilities to use the acquired knowledge in a new problem situation, the experience of making a responsible, informed choice of their activities. That is why the teachers are increasingly interested in test and quest technologies for assessing the quality of learning, which are relevant in both offline and online formats.

THE NEED TO EXPAND THE FORMS OF INTERACTIVE ENGAGEMENT IS A CONSEQUENCE OF THE INTRODUCTION OF A BLENDED FORM OF EDUCATION

Blended learning is a kind of hybrid technique, when the possibilities of online (distance) learning, traditional (off-line learning) and independent work of students (interns, trainees) with electronic resources, databases, etc., are combined.

For Ukrainian higher education institutions, such a training format is now extremely important. The theoretical material is mainly presented in webinars that take place in real time via the Internet and are recorded by the teacher for the possibility of further viewing by students who could not join the class due to certain circumstances (electricity outages, lack of internet, air alarm, etc.). Practical classes for medical students are carried out in the fullest possible extent to ensure that skills, competencies are formed in a qualitative, complete, and responsible manner.

Regarding the seminar classes, which under the new conditions have acquired a certain transformation and are conducted exclusively online, the decisive factor has become the preservation of the interactive component as much as possible. That is why pedagogical searches aimed at substantiating of effective, expedient methods, technologies that will motivate students to study, will intensify research work, will promote the development of teamwork skills and ability to communicate.

Quests as an interactive technology of education have recently proven themselves well both in secondary and higher education. Due to their competitive nature, it has won many supporters, which is evidenced by numerous foreign and domestic publications.

Quest is the competition of groups, the purpose of which is to reach the finish line first due to fast and qualitative performance of various theoretical and practical tasks.

In the world's history, quests as an adventure game have been known since the time of Ancient Greece – “The Myth of the 12 Labors of Hercules”, “The Myth of Perseus”, etc. In the 20th century the Englishman J.R.R. Tolkien

created his novel “The Lord of the Rings” according to the classic principles of the quest. In the 1970-ies, the term “quest” was actively picked up by computer game developers to simulate the movement of the plot through the overcoming of various obstacles by the heroes (players) (completion of tasks, search, etc.).

It is worth mentioning that the quest came to modern educational institutions from the practice of organizing leisure time. The didactic model of the web-quest as a search, analysis and arrangement of educational information was offered in 1995 by the teachers of the university from San Diego Berne Dodge and Tom March.

According to scientists, the quest, combining the elements of game, search, brainstorming, creating a positive emotional background for learning, makes it possible to significantly increase the motivation of all participants of this interactive activity. The game usually brings people together, sets them up for action, concentrates attention, and activates logical thinking [1, 2, 3, 4, 6, 7, 8].

To date, the problem of creating and using quests in the educational process is actively studied by foreign and domestic scientists: Zhydenko T.F., Kravets N.Ya., Melenets I.L., Sokol I.M., Shevchyk L.O. [3, 4, 9, 10, 11].

In blended and distance learning, we prefer the Miro interactive whiteboard due to the possibility of using a wide range of different templates that can be easily adapted to a specific educational purpose, enough tools, including options to write down your ideas or comments, add stickers, upload documents, tables, images, draw diagrams, collages, etc. When working in groups, students are interested in using these tools, their motivation increases. In addition, the teacher sees the activity of each participant (attached stickers, additions, comments, etc.) and this gives him grounds for objective assessment.

EDUCATIONAL QUEST IN A BLENDED FORMAT OF INTERACTION AS AN EFFECTIVE INTEGRATION OF THEORY AND PRACTICE

The desire to be as effective as possible, to convey to each student (post-graduate student, intern, trainee) not only the knowledge component of the academic discipline, but also to form skills and values, prompts us to pay more and more attention to practically oriented methods, which for a certain time were perceived mainly as games and entertainment.

Higher medical education (as well as other types of specialist training) cannot be completely transferred to a distance form, because the formation of practical skills and values is no less important here than the acquisition of theoretical knowledge. The training of a future doctor must necessarily include the use of a wide range of interactive methods and techniques, not least of which is the educational quest.

The scenario of the quest provides several options for the development of events:

- groups move according to the steps (tasks) determined by the teacher, and upon successful completion, receive a pass for further movement;
- groups independently determine the route, choose intermediate tasks that will help them in performing the main task (the number of intermediate tasks is determined in advance).

In any of these options, the path to team victory depends on choosing the right movement strategy, knowledge, skills, and motivation of all group members.

Since the students are offered not a one-step problem situation (finding justification and presenting conclusions), but a situation that requires defining a road map (how and where to move), completing a certain number of tasks (steps on the way), the educational quest activates cognitive activity, develops critical and clinical thinking (when it comes to clinical disciplines), forms responsibility, communication skills, teamwork skills.

Thus, the effectiveness of the quest as independent work largely depends on the correctness and clarity of the formulation of the task, definition of the central problem to be solved. Of course, the material to which the students will appeal must be previously worked out in lectures, seminars, and practical

classes. In some cases, new material may be partially involved, since the task of the quest is to learn how to build a certain chain of cause-and-effect relationships, which will allow to structure and strengthen knowledge and skills.

For example, we will consider the quest which is offered to 3rd-year students as part of studying the topic “Pathophysiology of organs and systems”, the content module “Pathophysiology of the regulatory system (endocrine, nervous) and extreme conditions. We take as a basis the material already mastered by students in the 2nd year during the assimilation of theoretical material from the discipline “Physiology” (Part 1 “General Physiology”, content sections “Nervous regulation of motor functions”, “Nervous regulation of visceral functions”; Part 2 “Physiology visceral systems and higher integrative functions”, content section “Higher integrative functions of the nervous system”).

The information poster contains the following information:

Alexander is a vigorous and restless child who is easily distracted by extraneous matters during school hours. The boy hardly reacts to the teachers' remarks, entries in the diary do not deter him. Humanitarian subjects are especially difficult for him – language, literature, but the exact sciences, on the other hand, arouse a lively and persistent interest. Oleksandr easily perceives educational material in mathematics, informatics, physics, and at the same time shows maximum attentiveness and concentration.

It is worth noting that the boy pronounces words and phrases in a hurry (he simply “swallows” some and because of this his speech is not always clear), has a fast and even jerky gait. For him, there are no authorities or prohibitions – he is his own boss. He easily gets carried away by something, and just as quickly loses interest in it – no matter is brought to a logical conclusion (based on the materials of V.P. Maltsev [5]).

Tasks displayed in the route sheets of the groups:

Task 1. Determine the type of higher nervous activity of the schoolboy (according to I.P. Pavlov), give a brief justification;

Task 2. Name the peculiarities of the nervous system that determine the behavior of a schoolboy. Provide a comprehensive answer.

Task 3. Determine the means of behavior correction effective for this type of higher nervous activity. Justify your answer.

Task 4. Make a note to parents (teachers) that would contain three tips on how to correct the behavior of such a child.

Let's consider the components of the educational quest and the requirements for its individual elements:

1. The preliminary preparation for the quest involves determining its topic, purpose, and timing. Let's assume that up to 30 minutes of study time is allotted for the proposed quest.
2. Students should be informed in advance about the form of the lesson (quest), its topic, and the specifics of the assessment (formative or summative), which motivates them to repeat the educational material (update basic knowledge).
3. If necessary, the teacher can offer, as an advanced task, to process electronic resources on the topic (to expand ideas, knowledge about the subject of the future discussion).
4. All work will take place on the MIRO online board, which will allow all subjects of training to be involved in the work from any point on the world map (provided there is an Internet connection).
5. The information poster and route sheet (general) is displayed on Miro online board (in the general information segment accessible to all participants), while the answer sheets for each team are placed separately on their pages. It is in these forms that the time of the work will be recorded, the correctness and completeness of the answers will be determined, which will serve as a pass for further movement.
6. Important! During group work, only the teacher can observe how each participant works and what is his contribution to the joint work.
7. After discussing the rules of work, the students, of their own accord, are divided into three groups, each of which gets access to a personal room where they will work throughout the quest.
8. If one of the goals of the quest is summative assessment, then, of course, the use of additional information resources is not relevant. If one of the goals is formative assessment, then among the tasks proposed on

the route, it is quite possible to work with information sources from the Internet.

9. After completing the tasks and obtaining permission to leave the webinar room, we must conduct a collective reflection in order for the participants to realize their results, the peculiarities of applying the acquired (updated) knowledge and skills in life and professional activity.
10. The winner of the quest is the group that coped with the main task faster and better than the others and reached the finish line.
11. At the last stage, there is both a mutual assessment of the work (within the group) and an individual assessment by the teacher of the achievements of each student (if necessary).

We will give another example of a quest task that is relevant and interesting for students. The information poster contains the following information:

When establishing the causes of mass food poisoning of children during an open-air competition of choreographic groups of educational institutions in one of the districts of city A., symptoms of damage to the upper part of the gastrointestinal tract common to all victims were found (high temperature, weakness, pain in the epigastrium, nausea, vomiting, headache).

During the team competition, the regional consumer union opened sales points for cooling carbonated drinks, cakes with protein and butter cream, sandwiches with semi-smoked sausage, rolls with grilled sausage, grated hard cheese and mayonnaise, buns with poppy seeds and jam, and chips.

Route sheet:

Task 1. Determine the possible cause of food poisoning, justify your opinion.

Task 2. List all products that could contribute to children's poisoning. Justify your reasoning.

Task 3. List all the properties of the causative agent of food poisoning that provokes the disease.

Task 4. Elicit the most complete list of directions for the prevention of food poisoning of this etiology.

The proposed quest is conducted with students of the 3rd year as part of the study of the topic "General characteristics of the infectious process. Intestinal

infectious diseases. Sepsis” (discipline “Pathomorphology”, content module “Pathomorphology of infectious diseases”, section “Special pathomorphology”).

The material was studied by students in the 2nd year during the assimilation of theoretical material from the discipline “Physiology” (part 2 “Physiology of visceral systems and higher integrative functions” in the content section “Digestive System”).

In the same way as in the first case, the virtual online board Miro is used, which helps to visualize the processes of online learning – exchanging ideas, adding materials (text, audio, video), attaching stickers, expressing emotions, etc.

The screenshot shows a Miro online board with a grid background. At the top, the Miro interface includes a search bar with 'free' and 'Untitled', a settings icon, a share icon, and a 'Share' button. The main content area contains the following text:

КВЕСТ 1

При встановленні причин масового харчового отруєння дітей під час змагання на свіжому повітрі хореографічних колективів невеличких закладів одного з районів міста А, виявлено спільні для всіх постраждалих симптоми ураження верхнього відділу шлунково-кишкового тракту (висока температура, слабкість, біль в епігастрії, нудота, блювота, сповнений біл). Під час змагання колективи районною споживською було розгорнуто пункти продажу охолоджувальних газованих напоїв, тістечок із білковим та масляним кремом, бутербродів із напівкопченою ковбасою, роликів із сосисковою злив'ям, тертим твердим сиром і маюризмом, булочок із маком та повидлом, чіпси.

Маршрутний лист:

Завдання 1. Визначте можливу причину харчового отруєння, обґрунтуйте свою думку.
 Завдання 2. Перелічіть усі продукти, що могли сприяти отруєнню дітей. Аргументуйте свої міркування.
 Завдання 3. Перелічіть всі властивості збудувача харчового отруєння, що провокує заворушення.
 Завдання 4. Перелічіть максимально повний список напрямків профілактики харчових отруєннь цієї етіології.

Below the text, there are three groups of sticky notes:

- Група 1:** Four green sticky notes.
- Група 2:** Three orange sticky notes.
- Група 3:** Three blue sticky notes.

The bottom right corner of the board shows a zoom level of 39% and a help icon.

CONCLUSIONS

The results of the quest are an excellent option for the final assessment on a separate topic (module, discipline), because they open up an opportunity for the teacher to see the level of assimilation of the educational material by the group, and for the students to come to a conclusion about the integrity (or fragmentation!) of the acquired knowledge, formed skills and values.

The quest itself is perceived by the students as an interesting game (not an assessment!), because there is an element of the competition, the desire to outdo other groups and win.

The success of the quest depends both on the level of students' preparation and on the competent formation of the content of the tasks by the teacher. These should be problematic tasks that do not envisage one correct execution option, their focus is precisely the search for optimal ways to solve the problem, opportunities to convincingly justify all the stages chosen by the group on the way to their goal.

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