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Upbringing Potential of Educational Technologies in Online Learning

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***Abstract*—Upbringing is a priority area of modern education. The teacher educates in the learning process. And the necessary element of educational activity is the upbringing, which is the formation process of such personal qualities that determine worldview, culture, attitude to people and study, social behavior, lifestyle. Making an online lesson becomes a problem of the new time pedagogics. The purpose of this article is the analysis of modern interactive technologies that have an upbringing effect. The author's team has analyzed, tested and offered the pedagogical community the most easily reproducible technologies in online learning. These technologies are the most interesting according to students. The technologies described in the article make online classes effective and interesting in terms of achieving personal, metasubject and subject results of education. They can significantly increase the upbringing potential of the online lessons.**

Keywords—online education, educational activity, upbringing potential, technologies

I. INTRODUCTION

The most important strategic task of modern educational policy in Russia is the successful entry into European educational space. Scientists and teachers pay special attention to the organization of the educational process: the introduction of information and innovative technologies, working with gifted students and students with special needs, organizing distance learning and improving the quality of teaching in general. The issues of personal development of all students, their preparation for self-education are traditionally considered the tasks of upbringing work. And they remain out of discussion especially in the context of distance learning.

The topic of digitalization of the educational system is relevant today. The pandemic period has shown the need to be ready to organize the educational process in online mode, when teachers and students are forced to spend a large amount of study time in front of a computer screen. It should be noted that the child does not have the possibility of live communication with a group of other students.

It is worth remembering that in process of teaching, a teacher brings up. A necessary element of educational activity is upbringing, which is the process of forming such personal qualities that determine the worldview, culture, attitude to people and learning, social behavior, lifestyle. Upbringing is aimed at creating conditions for self-realization of the individual, helping students in life self-determination, moral and civil formation. In general, "education is a complex

process, the structure of which consists in the relationship of the main elements: goals, content, methods, means, results of training and upbringing " [8, p.279].

II. Materials and methods

The methods of our research are content analysis, observation, experimental training, and a survey of students on the use of innovative technologies for organizing educational activities during distance learning. The author's team analyzed, tested and offered the pedagogical community easily reproducible technologies and the most interesting technologies, according to students. All technologies have an upbringing effect.

III. Results

As a rule, each educational organization strives to develop its own educational concept. The key idea of the concept is the principle of development of corporate unity, which implies creating conditions for joint activities of students and teachers. Partnership can be achieved through the development of project activities (research, cultural, sports). Thus, an integral system of forms, tools and technologies is formed in educational organization.

However, we are interested in the upbringing potential of the on-line lesson and how to carry out upbringing impact in the learning process, what educational technologies will be most effective. The upbringing impact of the on-line lesson depends on its main organizer, i.e. on the teacher, who should not only provide knowledge and manage the learning process, but also necessarily be the educator.

The choice of teaching material depends not only on the curriculum and textbook, but also on the teacher. The teacher can choose and focus students ' attention on those ideas, statements, and examples that will help to bring students up [9, p. 82].

Of course, during an online lesson, it is difficult to use all the existing educational technologies that give an upbringing effect. Therefore, teachers use them "partially", clarifying the details. They take into account the fact that they are dealing with the most complex, constantly changing objects of educational influence – students and students' groups, on the one hand. and equal subjects of the educational process, on the other. On the other hand, students are equal subjects of the educational process. The uniqueness and unpredictability of these "subjects" does not allow you to work without special training, even with the use of "the most advanced" technologies [3-5, 7, 12, 21].

We have identified and experimentally tested easily reproducible technologies that give the greatest learning and upbringing effect during an online lesson.

IV. Discussions

In recent years, specific technologies have gradually penetrated into education from the business sphere, start-ups and management. One of these technologies is called agile.

Agile technology (agile-method) is a flexible methodology for developing software. Agile technology is used by educators for the group work. It reflects interactions within self-organizing working groups [1].

Meeting the needs of students in knowledge and skills is the highest priority of the teacher. Using modern technologies, the teacher creates opportunities for continuous meaningful learning in a team. The technology is based on the following principles:

- changing priorities is welcome even at later stages of the educational process;
- learning cycles (modules) should be repeated more often and last from a couple of weeks to a couple of months;
- teacher and student should work together daily to make learning meaningful;
- motivated students should work on a project in a group with the support of a teacher;
- direct communication is the most practical and effective way to exchange information within a team;
- meaningful learning is the main indicator of progress;
- the team should systematically analyze ways to improve performance and adjust their learning activities and behavior in the group accordingly [10].

The upbringing potential of this technology in an online learning environment consists in the content of material that is offered for self-study, group work and information processing

Agile technology has many methodologies, one of which is Scrum technology. The methodology focuses on the quality control of the learning process. The main idea of the technology is the idea that "people and interaction are more important than processes and tools". Scrum technology is the team work technology. The team defines the problems, takes responsibility for solving the problems on the way to the result. Scrum requires an increment, that is, an increment of the previous product. In each print, children perform traditional steps (analysis, design, documentation). Scrum teams ideally produce an increment of product in each sprint. In Scrum technology, the manager is always one person - the Product Owner. He makes the final decisions in the project. In the educational process, the Product Owner is always a teacher. He/she is part of the team, works with the team, and is always able to identify problems and solutions. In a specific collaboration in the sprint, it is the Product Owner who chooses the most productive tasks for their subsequent implementation and evaluates the increment at each stage [16].

The concept of «interaction» is considered in psychology as a process of organizing interaction between individuals, i.e. in the exchange of not only knowledge, ideas, but also actions [6]. Interactive learning has a number of advantages. It is associated with group interaction and activity of all participants and with the emotional involvement of each student in the educational process. Participants of interactive training stimulate and activate each other. There is a

possibility of competition in the process of interaction [8, p. 289]. Students have the opportunity to gain experience in using knowledge in specific situations and expressing their own opinion. Joint educational activities turn into a model of social communication of individuals in the conditions of using interactive teaching methods. V. Laudis pointed out that «...it is the personal components of educational interaction, and not the knowledge acquired by students themselves have a direct impact on their inner world in the process of joint educational activities. They are the main carriers of the upbringing function of the educational situation» [18].

Interactive teaching methods create an environment in which the relationship between the teacher and students gives classes not only cognitive but also pedagogical character. In this regard interactive methods go far beyond the educational goals. They are means of self-knowledge and knowledge of other people, that form a worldview, contribute to personal development and understanding of the actions and motives of behavior of others.Interactive teaching methods develop students' communicative competence which is so necessary in the field of human relations [8, p. 285].

Interactive learning methods have their own specifics. They assume a subject-subject relationship between the teacher and students. The teacher, as a rule, acts as an organizer of the learning process. He creates conditions for students. The main conditions are interaction and cooperation of students. Learning results are achieved by mutual efforts of participants in the educational process [8, p. 291].

Paired online classes provide opportunities for intensive interaction between teachers and students. A paired class is held together with a colleague who teaches the same discipline. This activity will be effective and interesting for students when the content of the material has different points of view on the same problem. In this case each of the teachers highlights and justifies one of the approaches to the issue. Students take an active part in their discussion at the end of the presentation of theoretical views on the problem. [8, p. 299-305]. It is important not only to choose a variety of material on the topic in the preparation process. It is also important to formulate questions that students should answer at the end of the online lesson. The discussion of different points of view on the problem can be organized using some elements. For example, after the presentation of the theoretical material teachers can divide students into two groups. Then each group formulates questions for the opposite group. Teachers at this stage of the class act as consultants [8, p. 299-305]. It should be noted that paired online classes were tested by the authors of the article on the Zoom platform.

We have noticed the main advantage of pair online classes as a method of interactive learning. Students form their needs and develop their abilities to consider comprehensively the problem being studied. Students have the opportunity to understand and remember the received information well. Of course, this form of work is most effective in high school because high school students are able to analyze the proposed specific situations, cases, organize and participate in group discussions, brainstorming, etc.

We see today that in our rapidly changing world it is particularly important to create conditions that allow students to learn successfully even in online learning. Teachers have an interesting task: to form their students' skills of acquiring knowledge and competencies. It is not easy but it is vital. Quest technology has successfully proven itself in practice.

The concept of "quest" in education is a specific form of gaming activity. Quest requires participants to find solutions to the tasks [11]. The feature of quests is that students must quickly adapt in new conditions and make decisions in the most unexpected situations. All activities are aimed at the implementation of the problem task, on the one hand. On the other hand, the quest is associated with the search for a place, object, person or information.

Leading Russian scientists (V.A. Karakovsky, L.I. Novikova, N.L. Selivanova) agree that the development of the theory of upbringing requires a transition from idealized goals and methods of upbringing to the use of the potential of the pupil [6]. The meaning of the upbringing work of the teacher is to help the child in self-realization and development of personal potential. In this regard quest technology has a special upbringing potential.

Quests can be used to solve a particular problem, cover a subject or become interdisciplinary. The formats can be endless: quests-seminars, literary quests, ecological quests, sports quests, quests-forums and etc. Quest technology is universal. So any material can form its basis: a case, a psychological situation, an upbringing moment, a literary work, a social problem. V.A. Sukhomlinsky wrote: "In a teacher who knows how to bring up with help of knowledge this knowledge acts as a tool with which students consciously take new steps in the knowledge of the world".

The atmosphere during the quest in online mode complements and (or) transforms social norms. It reflects the specific conditions of life and value orientations of students. Each of the participants can see how the situation, behavior or mood of other people can change if the norms of behavior of this community are not observed. As an upbringing potential in the quest can be invented any rules that are suitable specifically for this group of students. Quest contributes to the development of imagination, motivation and disciplinary factor [17, p. 13].

Despite the variety of quests forms they have a clear structure:

- the introduction (the purpose of the quest, description of roles and scenario);
- formulation of the problem (determining the result of independent work of each participant, collecting information for the next stage and presenting the results);
- procedural instructions (description of the proposed independent work of each participant);
- guidance on the organization and presentation of the collected information;
- conclusion (analysis of the gained experience).

Any student will be able to try themselves in a variety of social roles and understand each of them from the inside with this structure. At the same time quest provides a variety of features of communication with other people in online mode. Trying a new social role the student stops the actions that are typical for him in real life, and proceeds to mental activity. Thus, students are inside the role and are focused on other participants in the quest. At the same time they are outside this role trying to look at themselves from the side.

STEAM-competence are an integral part of the quest technology as they combine several subject areas as a tool for the development of critical thinking, research competence and team work skills. The formation of such competencies in a student gives a huge upbringing result.

Thus the upbringing potential of the quest is in the development of personal resources, communication and practical skills of students, as well as in the formation of the younger generation's skills of emotional culture and STEAM-competence [2].

It is also necessary to pay attention to the fact that there is a constant need to test the knowledge and skills of students in the process of training in online mode. Often the student does not receive verbal feedback from the teacher about the quality of his knowledge and skills. Feedback occurs only in the form of marks received by the student during testing in online mode. Such difficulties can be overcome by using interactive learning methods.

The method of analyzing of specific situations is quite simple to prepare and apply. This method is based on the description of a specific life situation.Analyzing data students need to «get used» to the proposed circumstances, understand and evaluate the positions of other participants. Preparing for the online lesson the teacher needs to develop a specific situation for its comprehensive analysis. Here it is important to consider a number of requirements:

- the chosen situation must be logically related to the content of the lesson;
- the content of the situation must reflect real events or facts;
- the described situation should correspond to the level of training of students [8, p. 298].

"Cases" involve working in microgroups. The participants of each subgroup independently select and describe real problem situations. Then the teacher offers the other subgroup to specify ways to solve them within a certain time. The main idea of "case" is to develop (or remember) the best solutions for it from the point of view of all the group members. Development of the "case" is carried out according to the scheme:

- the name of the situation, its content (where and when it occurred);
- actual information needed to clarify it (participants, environment, conditions, etc.);
- the wording of the question to resolve the situation [6, p. 299-305].

After receiving the task the subgroups perform a creative task for half an hour. The essence of the task is to analyze the proposed situation and suggest various ways to solve it. At the final stage the participants of the subgroups discuss other options for solving the situation.

Role-playing as a technology allows students to model life situations. After the role-playing game participants share their experience of the roles. They express their opinions about the interaction process, and note positive and negative points. The performers describe the difficulties they had to overcome. The teacher acts as an organizer during the role-playing game. At the final discussion stage the teacher provides participants with an opportunity to share their experiences, relate them to knowledge and analyze the experience of using this knowledge [13]. According to teachers, role-playing as a technology is difficult to implement in online learning. It requires careful preparation. And many students find it difficult to implement it in online lessons.

V. CONCLUSION

In general interactive learning methods contribute to improving the quality of online education due to the fact that the development of knowledge actively involves thinking processes. They are stimulated by the need to perform direct actions. Using theoretical knowledge students can analyze and evaluate the phenomena or situations that they will meet in real life. In addition interactive methods have an upbringing effect when the student not only expresses a scientifically reasoned point of view but also expresses his personal attitude to the problem, his worldview and moral position. Described modern technologies are effective, easy to use in online mode, meet the interests of modern students. They make online classes effective and interesting in terms of achieving personal, metasubject and subject results of education. Interactive technologies can significantly increase the upbringing potential of the online lesson.

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