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The role of quest technology as an innovative form of interaction between the subjects of the educational process

Abstract. *The development of new approaches in the education system requires the use of previously unused training technologies. The development of information and communication technologies has a huge impact on changes in modern education. This article discusses one of the technologies used in the educational process - quest technology, which is designed to increase the self-education of students and improve their practical skills. The article also covers the definition of a web quest, levels, structure and, tasks. The article describes short-term and long-term types of web quests. The differences between the quest lesson and the regular lesson are examined. The interactive is built on communication interaction between learners in order to achieve individual goals, which stimulates communication and serves as a good way to unite the players. Quest technology creates conditions for interactive interaction of the participants of the quest, to activate the cognitive and thought processes of children through productive dialogue. Also, it is implemented in the integration of all educational areas, since during the solution of the assigned tasks, there takes place a practical combination of various types of activities.*

Keywords: *education, educational technology, quest, quest tasks, web quest, information, communication technologies.*

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Introduction

Modern learners are the «receivers» and «distributors» of the large flow of information they receive in their interactions with the environment, the media, and the Internet, in addition to learning materials. The information educational environment for students is not limited to the number of materials in the field of education in school and further education [1].

In this regard, the ability of teachers to manage information flows is becoming increasingly important, as teaching students to quickly find useful information, analyze it and use it in their work, decision-making, and creative approach to educational activities is becoming a real pedagogical problem. It has led to a change in the interaction between teacher and student in teaching: the activity of the teacher opens the way for the activity of students, the task is to

create conditions for the initiation of learning. Students become full participants in the learning process, whose experience is the main source of education. It is necessary to provide interactive learning, creative tasks, working in small groups, educational games, competitions, distance learning, "Brainstorming", educational quests, training, and other types of interactive activities. Quest is an effective educational technology for solving such problems [2].

Historical background

Quest technologies passed into the pedagogical industry at the end of the XX century. The term quest as educational technology was first proposed in 1995 by an American professor of educational sciences at Bernie Dodge University of San Diego. He developed innovative technologies for the educational process. Thomas March began to study this problem more deeply. In his opinion, the Quest (or web quest) is a type of educational framework using links to essential resources on the Internet and an authentic challenge in order to motivate students to explore any problem with an ambiguous decision. In the works of domestic scientists, there is no single view of the essence of the quest, because being a relatively new technology in pedagogy, the quest has not yet passed the stage of theoretical substantiation [3]. The problem of developing cognitive quests in the CIS countries is engaged in works of M.V. Andreyeva, Ya. S. Bykhovsky, N.V. Nikolayeva. The theoretical and methodological basis of the research is: a competence-based approach to education (V.I.Baydenko., J. Delors, I.A., Zimnyaya, N.V. Kuzmina., A.K. Markova, J.M. Mitina., B. Oskarsson., J.A. Petrovskaya, J. Raven., N. Chomsky, V. Khutmakher., A.B. Khutorskoy, etc.), provisions, theories of informatization of education and media didactics (B. Dodge, T. March, O.A. Baranov., Yu.N Yegorova., I.V. Robert., Yu.N. Usov., A.V. Fedorov., Ye.V. Yakushina.), the theory of project learning (U. Kilpatrick, P. Master, O. M. Moiseyeva., Ye. S. Polat., M. M. Rubinstein., T. Ye. Sakharova., I. I., Skvortsova M. Wicks., G. Worth., T. Hutchinson S. Haynes., K. Sheppard. and etc.)

Research methods

A quest is a small project, intellectual competition, business game, or sports competition. A quest in the learning process is a type of organized research activity of students' search skills. A knowledge quest is a search activity that is the basis of learning research. The basis of the educational quest is a task with elements of role-playing games [4]. There is also a psychological aspect of such an organized event as the development of self-confidence, communication, collaboration, teamwork, the ability to constructively defend their views, goal setting, and achievement, creative and behavioral flexibility in solving various problems, etc. The development of thinking, memory, and attention enriches the child's intellectual sphere. Many games have rules for the development of research skills and abilities such as observation, active search for new things, and independence in the development of the surrounding space. Although the quest game is usually cognitive and educational in nature, it should be born in mind that this type of exploratory activity needs the «support» provided by the teacher. Based on the support, there are the prerequisites for the organization of interactive learning, for example:

- positive relationship between teacher and students;
- democratic style;
- cooperation in the process of communication between teachers and students;
- based on the personal experience of students, the introduction of vivid examples, facts, and images in the learning process;
- expansion of various forms and methods of information presentation, forms of student activity, their mobility;
- inclusion of external and internal motivations of action, as well as the mutual motivation of students [5].

Adherence to these prerequisites will help the participants of the quest to properly plan the study, involve them in solving the problem, and focus on important aspects of the study.

The advantage of quest lessons is the use of active teaching methods. When working with the

quest, students understand the specific processes, and specific situations on certain issues. From the point of view of information activity, when working on a search, its participant acquires the skills of storing, transmitting, comparing, and synthesizing new information based on the search, analysis, and comparison of information [6].

Nowadays, in addition to the usual educational quests, there are web quests, which are problem-solving tasks with elements of games, which are carried out using information resources on the Internet.

Web-quest is one of the modern educational technologies, which includes targeted search activities of students who use information resources on the Internet to perform a specific educational task. Types of web quests are shown in Table 1.

Table 1

Types of web quests

Short term	Long term
Accumulation and consolidation of knowledge Mastering large amounts of information Usually lasts for hours	Expansion and generalization of knowledge analysis and processing (conversion) of information Create a product that others can respond to Usually lasts from 1 week to 1 month

Characteristics of the quest as a way to organize the project activities of students:

- web quest - the group activity of the research includes the creation of a common end product, the interaction of all participants to achieve a common goal;

- Motivational moment of the task - the distribution of roles among its participants, each of which is responsible for a particular type of activity when performing a certain function;

- trains mental abilities (interpretation, comparison, classification, general and individual division);

- promotes the development of creative thinking and problem-solving skills;

- allows you to implement an individual approach;

When performing web quests, students do not receive ready answers and solutions, they achieve results by solving the task assigned to them. Web quests can be created both in one subject and in an interdisciplinary way, using the basic knowledge of students in different disciplines [7].

Types of tasks for the web quest are shown in Table 2:

Table 2

Types of tasks for a web quest

Type	Description
Scientific research	study of various phenomena, discoveries, facts based on unique sources, consideration of realistic problems
Create a summary	to describe the understanding of the topic in a new format on the basis of materials from various sources: presentations, posters, stories.
Planning and design	Development of a plan or project on the basis of these conditions.
Self-knowledge	Any aspects of personality research
Compilation	Conversion of information formats from different sources: creation of recipe books, virtual exhibitions, time capsules, cultural capsules.
Creative task	Creative work in a certain genre - play, poem, song, video.
Analytical task	Information retrieval and systematization
Detective, mystery, secret story.	Conclusions based on contradictory facts.
Evaluation	Substantiation of a certain point of view
Achieving consensus	Development of solutions to the most important issues
Journalistic research	Objective presentation of information (distribution of opinions and facts).

As a learning game, the quest can consist of several stages (Table 3), each of which is

considered important in the implementation of the objectives: the introduction, the task, the main work process, and the necessary resources, creative, evaluation, and final stages. Unlike the standard solution of an educational task in the classroom, the quest must be interactive, as it must have feedback that is needed to further advance the participants' decisions and allow them to respond in the form of planning or adjusting learning activities. Web quest technology allows you to implement training. Visualization includes various demonstrations, presentations, and videos, showing any amount of graphic material. Multimedia complements the use of audio, video, and animation effects in traditional teaching methods. Interactivity combines all of the above and allows you to interact in virtual forms of the information environment, helps to introduce elements of person-centered learning, and allows students to fully discover their abilities [8].

Table 3

Web quest structure

Type	Description
Introduction	Brief description of the topic of the web quest
Assignment	Formulation of the problem and description of the final result.
Workflow and required resources	Description of the sequence of actions, roles, and resources required to complete the task (links to Internet resources and any other sources of information), as well as additional materials (examples, templates, tables, forms, instructions, etc.) that allow more effective web -organizes the quest.
Evaluation	Description of the criteria and parameters for evaluating the performance of the web quest, presented in the form of an assessment form. Assessment criteria depend on the type of learning tasks to be solved in the web quest.
Conclusion	Brief description of the results obtained by students by completing the web task.
Materials used	Links to resources used to create a web quest.
Feedback for the teacher	Guide for teachers using a web quest

Results and discussion

According to its results, an approximately equal number of students reacted favorably to this event and wanted to participate directly. More active teachers were formed as guides. And so on to the beginning of the experimental quest technology event didactic materials were prepared and corrected (selected documents, illustrative material, prepared cognitive tasks, diagrams, tables, etc.), and educational content. Due to the use quest technology, the students formed the following types of competencies:

- Information competence of students, that is, the ability independently search, analyze, select the necessary information, transform and transmit it.

- Educational and cognitive competence which includes knowledge of hometown history, goal-setting skills, planning, organization, and reflection of their activities

- Communicative competence – the ability to account for and understand another position, tolerance, knowledge of ways to interact with the skills of working in a group by the people around them.

- Value-semantic competence is associated with the values of students for their ability to understand the world around them and be able to choose the target and meaningful attitudes.

Conclusion

Having studied the essence and structure of quest technology in local history, We can conclude that today we have everything we need to carry out these activities. The most important thing is to interest students, which is, however, not such a problem as it seems at first sight.

It is necessary not to copy fragments of information found as a result of the quest, but to understand it critically, to process it to form new knowledge. However, when using quest

technology, it is necessary to take into account the above features, as well as the following requirements:

- Suitable for working in small groups on the basis of web quests, but in assignments for individual students.

- By inviting students to choose roles, it is possible to keep time in the performance of tasks, that is, each student has his own actions.

- The web quest can be implemented in interdisciplinary communication, not limited to one subject.

As a result of the study, the development problem was analyzed quest technologies in pedagogical and methodological literature. Since this technology is quite new, then at this stage there is a certain lack of scientific literature that would help more depth consider this issue. However, on the other hand, this technology interested many researchers, both foreign and domestic, about which we can safely say that this technology is being studied in full. Requirements for results were identified and characterized the use of quest technology in historical courses in normative documents. Since modern education is being transferred to the International Educational Standard and in the new educational standard spelled out about the project activities of students, therefore, quest technology is one of the elements of the educational process.

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Білім процессінде қолданылатын квест-технологиясының инновациялық рөлі

Аңдатпа. Білім беру жүйесінде жаңа тәсілдердің дамуы бұрын қолданылмаған оқыту технологияларын қолдануды талап етеді. Ақпараттық -коммуникациялық технологиялардың дамуы қазіргі білім берудегі өзгерістерге үлкен әсер етеді. Бұл мақалада білім беру процесінде қолданылатын технологиялардың бірі - оқушылардың өзіндік білімін арттыруға және олардың практикалық дағдыларын жетілдіруге арналған квест технологиясы талқыланады. Мақалада сонымен қатар веб -квест анықтамасы, деңгейлері, құрылымы мен міндеттері қамтылған. Қысқа мерзімді және ұзақ мерзімді веб-квест түрлері сипатталған. Квест сабағы мен қарапайым сабақтың айырмашылығы зерттеледі. Интерактивті қарым -қатынас ынталандыратын және ойыншыларды біріктірудің жақсы әдісі болып табылатын жеке мақсаттарға жету

үшін оқушылар арасындағы қарым -қатынасқа негізделген. Квест технологиясы ізденіске қатысушылардың интерактивті өзара әрекеттесуіне, танымдық және ойлау белсенділігін арттыруға жағдай жасайды. өнімді диалог арқылы балалардың процестері. Сонымен қатар ол барлық білім беру салаларының интеграциясында жүзеге асады, өйткені қойылған міндеттерді шешу барысында әр түрлі іс -әрекеттердің практикалық үйлесімі орын алады.

Түйін сөздер: білім беру, білім беру технологиясы, квест, квест тапсырмалары, веб-квест, ақпараттық, коммуникациялық технологиялар.

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Роль квест-технологии как инновационной формы взаимодействия предметов образовательного процесса

Аннотация. Разработка новых подходов в системе образования требует использования ранее не использовавшихся технологий обучения. Развитие информационных и коммуникационных технологий оказывает огромное влияние на изменения в современном образовании. В данной статье рассматривается одна из технологий, используемых в учебном процессе - квестовая технология, которая предназначена для повышения самообразования студентов и совершенствования их практических навыков. В статье также дается определение веб-квеста, уровней, структуры и задач. Описаны краткосрочные и долгосрочные типы веб-квестов. Рассмотрены отличия квест-урока от обычного. Интерактив строится на коммуникативном взаимодействии между обучающимися для достижения индивидуальных целей, что стимулирует общение и служит хорошим способом объединения игроков. Технология квеста создает условия для интерактивного взаимодействия участников квеста, активизирует познавательные и мыслительные способности. процессы детей через продуктивный диалог. Также он реализован в интеграции всех образовательных направлений, поскольку при решении поставленных задач происходит практическое совмещение различных видов деятельности.

Ключевые слова: образование, образовательные технологии, квест, квестовые задания, веб-квест, информация, коммуникационные технологии.

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