USING TEAM PROJECT METHOD IN DISTANCE LEARNING

Islomov Shahboz Zokir ugli
philosophical doctor of technical science (PhD),assistant professor
Tashkent, Uzbekistan
e-mail: shaxboz4044@gmail.com

Abstract. *In this paper is given distance learning problems, technologies, implementation forms and using effectives. Methods of distance learning is directed student project. Therefore, in paper is described two types of projects: individual and team. Also, using team projects in distance learning, advantages, barriers, stages with positions of the students in the term, ways of elimination of the problems are presented.*

Keywords: *distance learning, project, team project, tasks, distance learning stages, project stages, LMS.*

Introduction

"*Every professor teaching online should consider team projects for his or her classes*".
Edward Volchok

Distance learning is a special type of learning, the main feature of which is the interactivity of the interaction of all participants in the educational process. The presence of a teacher is not necessary, since distance learning is a process of self-study of the material. Distance learning is characterized by both general pedagogical didactic principles of teaching and specific principles. The use of new information and telecommunication technologies allows for the interaction of distance learning participants, regardless of their location, using e-mail, chat, forum, video conference, webinar, online seminar.

The methodological feature of distance learning is that the assimilation of knowledge, skills and abilities provided by the curricula is carried out not in traditional forms of education (lectures, lessons, seminars, etc.), but through the independent work of the student using various means - carriers information. At the center of the distance learning process is not teaching, but learning, that is, the student's independent cognitive activity in mastering knowledge, skills and abilities. At the same time, the student must not only master the skills of working with a computer, but also how to work with educational information that he encounters in the process of distance learning.

At the same time, the characteristic features of distance learning are [1]:

– flexibility;
– modularity;
– economic efficiency;
– a new role of the teacher;
– specialized quality control of education.

There are various forms of implementation of distance learning technologies:

– correspondence training, in which the interaction between the student and the teacher is carried out through classical correspondence;

– CAST-technologies, in which separate packages of methodological materials are formed for the student on each topic studied, while the development of the educational program is carried out by him independently;

– network technologies, which use the capabilities of modern computer networks to provide students with access to various educational resources and communication with a teacher.

Main part

In distance learning systems are used two types of tasks directed methods: individual and team (group, cooperate).

Individual skills. Individual skills are abstract tasks. The development of skills for solving abstract problems that are far from everyday work is in demand in several cases. Solving abstract problems allows you to develop abstract-logical thinking, which is necessary for various types of activities. Appropriate learning games can be useful, in teaching, for example: it is often impossible for them to set a specific task, as for working specialists, since they are not yet familiar with the subject area. In addition, knowledge becomes obsolete during training, and skills from a narrow subject area may require updating.

Effective development of individual practical skills requires a combination of several factors [2]:

– a clear statement of the task, the less specifically the task is set, the greater the variability of the decisions made and the lower the effect of training;

– fast and unambiguous feedback that allows you to correct the behavior during the lesson so that the participant does not fix incorrect skills;

– multiple repetitions, allowing you to work out a skill to automatism, a good example of setting tasks of this type is, for example, working out emergency situations on simulators.

These situations can be overcome by multimedia information. Infographics, videos, voice acting help to perceive information faster. People remember [3]:

– 10% of what they hear;
– 20% of what they read;
– 70% of what they see and do.

Methods for distance learning can be recommended: demonstration, illustration, explanation, story, conversation, exercise, problem solving, memorization of educational material, written work, repetition.

In addition, when learning outside the organization, participants discuss some issues more openly and honestly than in the environment of their colleagues, in the presence of managers and subordinates.

Team skills. Teamwork skills can only be developed by solving collective problems. At the same time, it is important to take into account that teamwork depends on many factors (the number of people, their temperament, inclinations, corporate culture, the nature of the task being solved, etc.), and problem solving will be very different in different groups, therefore, in order to develop team skills when solving specific problems, it is desirable to work them out in the same group in which you have to act during the current work. When setting the task, it is also worth emphasizing the repeated development of skills, while not only the skills of an individual are important, but also the skills of interpersonal interaction and communication. No less than with individual work, feedback is important, and not only from observers, but also from other members of the group. In the case of developing team skills, it is better to focus on communication and interaction when setting a task, but it is important to take into account that when working out specific practical tasks, it will not be possible to completely get away from the influence of individually performed work on the result [4].

There are other groups of people whose teaching on abstract examples is more justified. The higher the position of a person in the hierarchy of the organization, the more often he is required to think outside the box and solve problems that go beyond the usual schemes. Also, the ability to think outside the box is suitable for solving problems necessary for some professions, for example, project work. The formulation of problems in this case should assume the half-variance of both the solutions themselves and the approaches to finding them. The condition of the problem may not provide all the information necessary for the solution in a form convenient for perception and work. The emphasis here is not on the multiple repetition of a certain solution scheme, but on the opportunity to try and compare different approaches and schemes.

The statement of the problem in this case should be built taking into account all that has been said and also assume many possible options for interaction between people and their groups. Often the conditions are different for different participants,

which suggests internal conflict between them or forces them to negotiate and find the best solution (Figure 1).

<table>
<tr><td colspan="4">Abstract tasks</td></tr>
<tr><td rowspan="2">Individual skills</td><td>– multivariate solutions and approaches;
– various strategies;
– several correct decisions</td><td>– multivariate solutions and approaches;
– various strategies;
– several correct decisions;
– interaction in various formats</td><td rowspan="2">Command skills</td></tr>
<tr><td>– a clear statement of the problem;
– fast feedback;
– repeated repetition</td><td>– a clear statement of the problem;
– feedback from group members;
– repeated development of interaction in one format</td></tr>
<tr><td colspan="4">Specific tasks</td></tr>
</table>

Fig. 1. Key aspects of the problem statement

In distance learning, team projects have two added benefits [5]:

– helping students connect with one another (which helps counteract potential isolation);

– providing the experience of working on distributed teams (an increasingly common requirement in the workforce.

Depending on who the distance learning is for, what goals the training organizer sets, the content changes somewhat. This distance learning allows you to issue a team decision, to teach that you can achieve the best result only by being able to negotiate, not only within your group, but also with members of other teams. It is important not only to methodically organize and conduct distance learning, but also to make a full-fledged detailed analysis. Its implementation is no less important than the training itself. At the same time, the management has the opportunity to analyze the behavior of each employee and the team members have the opportunity to see how other participants in the training behave.

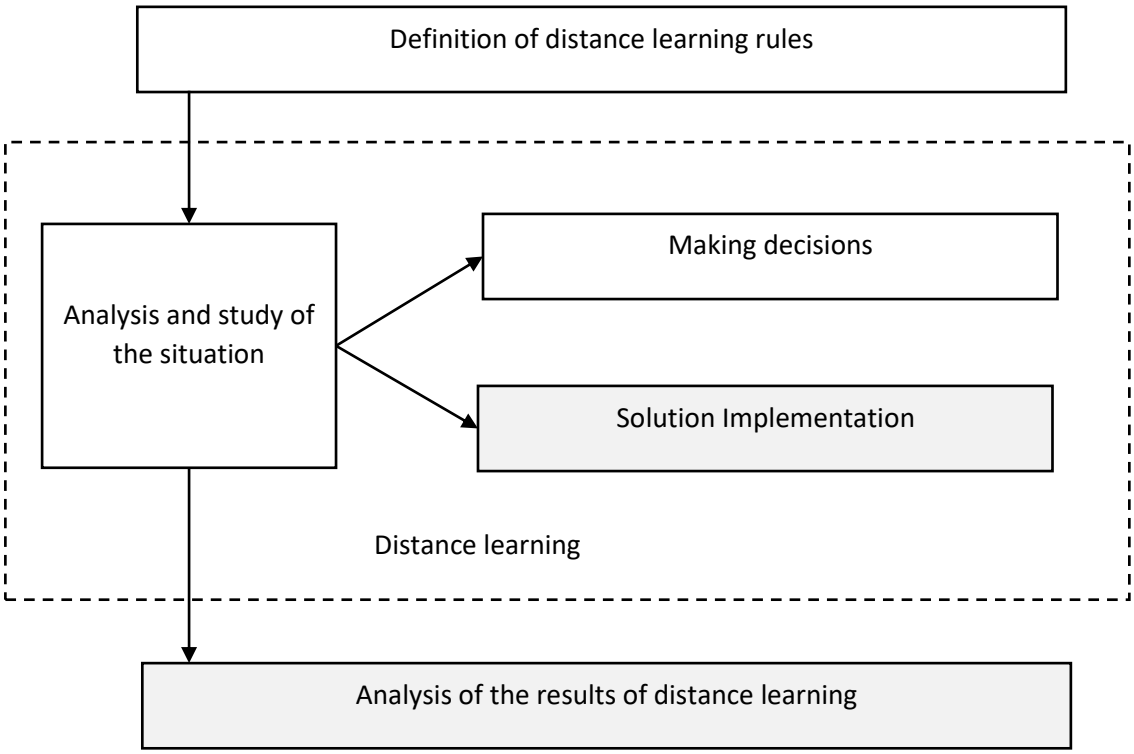

Fig. 2. Stages of distance learning

The distance learning process involves the implementation of several stages (Figure 2): determining the basic rules of distance learning, actually conducting the training and analyzing the results.

At the stage of defining the rules, the participants are given a task that they must complete in the learning process, the means and methods of its implementation are selected, and the roles are assigned. Distance learning may be preceded by a lecture course that introduces students to the methods of solving problems, the skills of which are developed in the process of learning itself. Actually, the training itself consists of sequentially conducted training modules, the number of which may be different. Each module involves a preliminary analysis and study of the situation.

During the work on the project, in order to ensure the students' creative abilities and mutual relations, as well as the participation of each student in the project, a schedule of tasks of the executors is formed (Table 1).

Table 1. Community participant in the project and of duties distribution

	Leader	T-m 1	T-m 2	T-m 3	T-m 4	T-m 5
Task 1	control					
Task 2	control					
Task 3	control					
Task 4	control					
Task 5	control					

If the tasks are distributed depending on the abilities of the participants, the goal of the project will be easily achieved. Tasks of participants can be changed based on mutual agreement and consultation with the project manager. The project manager distributes the tasks to everyone and helps the necessary participants and consolidates all the results.

Table 2 shows the time of organization of the "Team Project" method, the tasks of the members and the expected results.

Table 2. Technological map of the educational session using the "Team project" method

Work stages and content	Due date	Activity	
		Teacher	Students
Preparation	First week	Defines project topics and purpose. Introduces learners to the essence of the design approach. It offers a number of topics, provides information about the content of the project, forms its scope, lists the types of work, their results and evaluation criteria.	They come together in small working groups, choose and discuss the topic of the project. Gets additional information as needed. Determines the goal, discusses the project tasks.
1. Planning	The second week	Offers ideas, makes additional suggestions. Recommends sources of information, methods of its collection and analysis. Defines the criteria and overall process for evaluating work order and milestones.	Selects an action plan: formulates tasks, determines direction and stages of execution, order, and distributes tasks among team members. They agree with the teacher the method of analysis of the results (report form).
2. Research. Intermediate presentation	During the first control week	He observes, advises, helps to find a source of information, is a source of information himself.	Interim reports are prepared on the basis of the learned knowledge and analysis as a solution to the assigned tasks.
3. Information analysis. Conclusions	The first and second control weeks	Manages the entire process, feedback is provided.	Analyzes the received information, forms results and conclusions.

Work stages and content	Due date	Activity	
		Teacher	Students
4. Report	During the second control week	A regular listener, asks targeted questions, empowers and motivates.	Submits report materials on the results of work and makes a presentation on the main results.
5. Evaluation of process and results	During the final control week	It evaluates the complete level of problem solving, group action strategy, learner strength, quality of use of resources, creative approach, possibility of continuity of work, quality of reporting, etc.	Through team discussion, they defend the results of the work and its progress, including the degree of completeness of problem solving and the strategy of action. Takes examples from the achievements of other teams.

Also, there are some challenges in online team projects [6]:

1. Different schedules, work pace, and time zones.

2. Impossible face-to-face opportunities.

3. Secure file sharing.

4. Different computer platforms or applications.

5. Different file formats.

In order to avoid these defects and causes, it is required to do the following:

– correct assessment of knowledge and skills of team members;
– distribution of tasks according to their capabilities;
– treating and encouraging all members equally;
– to evaluate their place and potential in the team in order to increase the responsibility of the members.

One of the main tasks of the project manager or leader is to identify and prevent the reasons that hinder the implementation of the “team project”. Therefore, the selection of a knowledgeable and thoughtful person as a project leader will improve the performance of the work.

Table 3 shows the comparative difference between the existing “Individual project” and the proposed “Team Project” methods in distance learning.

Table 3. The difference between "Individual project" and the proposed "Team Project" educational methods

Educational methods and features	Individual project	Team project
Methods of organization and implementation of educational activities	Self control	Consolidation of individually learned knowledge in the team
According to the type of search	Partly traceable	Research, algorithmic, collective conclusions
Evaluation criteria	5 points Evaluation at the end of the work	5 points Marking of the task -5 points Intermediate defenses - 5 points Final report - 5 points The grade is averaged
According to the control method	Gives to the teacher. A software manual is used	Gives to the teacher. With the help of technical means of education
According to methods of observation of cognitive activity	Using indirect guidance	Based on the comparison of the obtained results

Through the "team project" method, students' teamwork skills are formed and the feeling of helping each other increases.

Based on the "team project", students acquire knowledge that they do not have, using the opportunity of others. He also learns the shortcomings of the project manager and works on himself in order not to repeat these shortcomings in future leadership positions. The main thing is to have the ability to properly direct the team. In life, there are such leaders who try to talk less with him and reduce the relationship with him as much as possible. In the team project method, the leader is required to treat everyone equally, that is, to be a leader.

It causes team members to argue calmly and respectfully. The leader of the team should be able to distribute the work correctly and motivate the members. Student projects should consider incentives and bonuses for members in various ways.

As a result of the project implementation, the stages of writing a report, formalizing it and handing it over to the receiver are also carried out. As a result, the problems that arise in the performance of the assignment in post-study activities are studied and eliminated.

Also, there are a number of characteristics inherent in a distance course, if it claims to be effective [7]:

– more thorough and detailed planning of the student's activity, its organization, a clear setting of tasks and learning objectives, delivery of the necessary training materials;

– the maximum possible interactivity between the student and the teacher, feedback between the student and the educational material, providing the possibility of group learning;

– the presence of effective feedback that allows the student to receive information about the correctness of their progress along the path from ignorance to knowledge;

– distance education is appropriate if it is organized for the purpose of training employees working in this field.

Implementation of the team project method in distance education is based on the following LMS capabilities:

Group sites: All learning management systems (LMSs) have group-specific sites where you can post documents relevant to the project (e.g., task descriptions, readings, resources) and assignment deliverables. On group sites, students can use team discussion boards to talk about their project, log contributions and update the project status. You can visit these discussion boards to monitor group dynamics and gauge progress.

Chat tool: A chat tool allows team members to interact synchronously with one another, with you, or with other groups any time, day or night. The LMS records the conversation for students who are off-line to check later.

Web conferencing tool: Web conferencing is a powerful tool for synchronous meetings. You and your students can see, hear, chat, and work on a whiteboard with one another. All participants can share screens and documents.

Conclusion

Project-based learning and team project are valuable tools for education. They teach teamwork and group dynamics, encourage a deeper and broader understanding of the course material and foster higher-level cognitive abilities. However, these results can be hindered if the project and the student teams are not properly prepared and supported.

The students must be prepared for how to effectively work in teams, and provided with the same online tools that facilitate sharing their ideas and formulating their final product.

References

1. Almazova I. G. et al. Analysis and development of effective distance learning practices //Propósitos y Representaciones. – 2021. – С. e1125-e1125.

2. Толстобоков О. Н. Современные методы и технологии дистанционного обучения. Монография – М.: Мир науки, 2020. – Сетевое издание.

3. https://www.ispring.ru/elearning-insights/chto-takoe-distancionnoe-obuchenie

4. Georgiadis G. Projects and team dynamics //The Review of Economic Studies. – 2015. – Т. 82. – №. 1. – С. 187-218.

5. Iddris F. et al. Student innovation capability in virtual team projects: lessons learnt from COVID-19 pandemic era //International Journal of Innovation Science. – 2022. – №. ahead-of-print.

6. Ndubuisi A. et al. Developing Global Competence in Global Virtual Team Projects: A Qualitative Exploration of Engineering Students' Experiences //Journal of Studies in International Education. – 2022. – Т. 26. – №. 2. – С. 259-278.

7. Ekblaw R. Effective use of group projects in online learning //Advances in Human Factors, Business Management, Training and Education: Proceedings of the AHFE 2016 International Conference on Human Factors, Business Management and Society, July 27-31, 2016, Walt Disney World®, Florida, USA. – Springer International Publishing, 2017. – С. 475-483.