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## Importance of design in educational process of foresters

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## **Importance of design in educational process of foresters**

### **Introduction**

Recently, in the world of work is more significant to express themselves substantial changes: the rapid introduction of new technologies, new forms of production organization, the emergence of new areas of employment, etc. Computers, electronic communication, the Internet greatly facilitate the learning process. However, changes in society, increase demands to methods for training specialists. One of the most effective technologies that enhance the learning process is the design.

Design is a mandatory part of professional training. Special need in it is perceptible when preparing foresters as it involves the use of modern means of training and education, enables to predict possible results.

The main task of foresters' vocational education is the organization of optimal training future professionals, the results of which would allow them to operate effectively in a changing professional environment. This requires special skills to build a mental image of the future goals and procedures appropriate actions to achieve them considering the external circumstances and individual characteristics. This formation is a project – exemplar of the future predictable phenomenon.

In the basis of each academic project must be placed problem that close and relevant to the students. It motivates activity address to its solution.

The training project – a plan of action sequences from students, which is educational in nature and limited in time.

A famous Swiss teacher G. Alebli wrote: „Who has a purpose and still do not see how it can be achieved has a problem. Who begins to see how it can be solved, has a project” [Khomenko: 135].

### **1. Main body**

The aim of our work was to review the use of project-based learning in educational institutions, as well as the definition of students' commitment to implement unconventional teaching methods (including project technologies).

Methodology of study was in survey (questionnaire) students who enrolled in agricultural educational higher institutions of our country as to the awareness of them with the method of projects.

The results of researches showed that most students have a commitment to teaching of project technology. It was revealed in the result of students' survey in five educational establishments of forestry direction (Zhitomir Agroecological University, National Forestry University, Bila Tserkva National Agricultural University, Uman National University of Horticulture, and Shatskiy Forestry College).

Almost half of the students are supporters of project learning technology, which is not involved in the learning process. The lessons which conduct in unusual conditions attract the students.

Means that similar to method of projects continue to use today worldwide by I.L. Bim, I.A. Zymova, O.M. Kobernyk, I.Yu. Malkova, N.V. Matyash, O.M. Moiseyeva, M.B. Pavlova, Ye.S. Polat, T.E. Saharova, V.D. Symonenko, I.S. Chechel, L. Fried-Booth, T. Hutchinson, D. Phillips and others.

The method of projects – the classic learning method, under which developed new versions adapted to the tasks capabilities of modern universities.

Characteristic features of the project approach to learning are:

- 1) Teaching students designing – this type of activity, which is necessary to man, to be competitive and socially mobile;
- 2) The integration of formal, non-formal education in the system of continuous education of competent orientation;
- 3) The main role of the teacher in this case is the role of tutor, consultant and facilitator of the educational process;
- 4) Solving life's problems;
- 5) Development of students' creativity and project thinking;
- 6) Ensure personal trajectory of pupils' development and self-development.

The idea of design-thematic activity allows you to connect the learning content with real life, and use of knowledge, abilities, skills which the students get during learning activities to solve practical problems. Implementing the project method primarily occurs awareness of their role in the joint project activities with students. After all, the teacher must: interest students' of this problem, develop the stages of the project; distribute tasks among students, source of information, coordinate phases of project activities, support and encourage participants.

However, students are not always able to convert information into knowledge. The volume of information does not always lead to systematic knowledge. Therefore, the younger generation must be taught to properly assimilate information, and you need to teach their rank, to select important, to be able to find the relationship and structure it. You must also teach them purposeful information retrieval, search work.

In this regard, there is a new educational problem: training the individual who knows how to seek out and receive the information it needs in large volume, absorb it in the form of new knowledge. That is according to the N.Y. Pakhomova all that is forming in learners' information competence.

Analyses of the studies have shown that the projects used in the educational process in the study of any subject course. Developmental effects of project technology is felt in the active curiosity, learning interest of students in learning research methods of thinking, shaping conscious and creative selection of optimal reform activities, the ability to think systematically and comprehensively identify themselves need information support activities continuously learn new skills and apply them as a means of transforming activity.

Designing – a compulsory part of professional training. Educational and technical projects are well known in modern conditions. They are used in various forms: on the one hand traditionally (especially in technical schools) graduation projects are a form of training and supervision of training specialists. Creating a course or diploma is the resulting act that shows the student's ability to self-creation and public presentation of a professional product. On the other hand – designing increasingly begins to be used as a variety of educational activities, including for the purposes of humanistic education.

One of the important tasks of vocational training is to train future forestry designing of their activities and those professional functions, tasks, actions, and processes that they will have to make in the future. Therefore should form a coherent theoretical understanding of the nature and structure of these processes and activities. This allows then to quickly adapt to the real work environment, work effectively, and also included in innovation activity.

The educational process at agrarian institutions based on the principles of science, humanism, democracy, continuity and the level of education. However, it focuses on the formation of an educated, harmoniously developed personality capable of continuous updating of knowledge, professional mobility and rapid adaptation during the transition period of economic reforms of agriculture and forestry.

Analyzing the results, we can say that today there are many factors that affect the success of the student group, so the new means and the technologies are urgently needed, as their contribute the improvement of cognitive activity.

The innovative learning systems, which has a positive effect on training forestry specialists is just a project technology. Learning of this technology not only increases the activity of students, helps to organize the training process optimally, it also promotes to group activities where not only well trained but poorly trained students are included in the educational activity. During this activity the teacher works as a consultant.

Taking part in projects, students gain the complex of business skills: the ability to adapt to the team, to make their own informed decisions rationally organize their work and the work of other members of the project. It is important that the students need in a self-learning and self-improvement, creative analysis of factual material.

Today graduate of higher agricultural university must demonstrate not only a strong professional knowledge of the chosen field of activity, but also have enough fundamental education to further competition on the basis of new specific knowledge due to the new conditions.

Modern project study is widely used in educational learning systems in many countries. Teaching with this method is used in such countries as: Germany [Khomenko, *Features...*], USA [Pichugin, *Training...*], England [Pitt, *What is...*], France [Zhukovsky, *Project...*] Belarus, Russia [*Loginov...*]. In these countries design technology is being promoted into the educational process, state-provides programs and plans and the hours of project-based learning are paid. That is, it should be noted that the method of project takes a significant place in training of different specialists.

In our country the technique of implementation of project-based learning finds its place slowly, as both teachers and students are less familiar with it. However, taking into the consideration the effectiveness of training with using the project method much attention should be paid to this technique, the faculty and student team of technology should be informed, the implementation of this technique should be done in the universities of our country.

Based on the mentioned information, it should be noted that projecting activity is a way to achieve a didactic goal through detailed design issues (technology), which should be completed in real, practical results, achieved in any way in our modern education.

The cooperation of teachers and students in the implementation of project work has several features in the classroom for forestry disciplines direction. The specificity of these subjects is teaching of forest management. It needs an active practice for each student of any group to equip them with the necessary skills and abilities to organize forestry needs. The project method may allow solving this learning task, turning forestry employment profile in active discussion, research club, which can resolve meaningful and accessible problems for the students.

The problem is in the basis of the project. If students want to solve it, they need not only knowledge of Forestry science, but also the possession of a sufficient volume of different practical skills. Also, students must have certain intellectual (working with the information, analysis, synthesis and conclusions), creativity (formulating goals, solutions for the problem, the forecast effects of the proposed solution), communication (discussion, the ability to listen to and hear the other, to defend their point of view, express their opinions) skills.

Method of projects in the form in which it is used today only inherited a few number of features of the initial plan: the benefit of those who study during the distribution of assignments within the group at the collective performance of the project, the students' specific features and teachers' functions at various stages of team activities.

## **Conclusion**

Having carrying out an analysis of the scientific literature, we can say that the project method finds its place very slowly. This is due to incomplete or delayed teachers' awareness about the specifics of using this approach to learning, as well as existing challenges of using design techniques by students as young people today have low self-critical thinking, self-organization and self-education. Therefore, to improve the educational system in our country we still need to go through the difficult path of change.

Taken the rapid changes in the development of education, we should emphasize that the search of new methods of training that would meet modern requirements is a long and difficult process. It is especially true with training in agricultural sciences. Education of foresters entails great responsibility, because the future of each state depends primarily on proper forest management. Therefore, the training of future foresters needs to be paid attention, because the future of the forest in their hands.

## **Literature**

Khomenko T.A., *Features of project-based learning in educational institutions in Germany.*

Loginov *Projects as usual better than school subjects, but...*

Pichugin G.V., *Training and methodological support project activities students in the United States.*

Pitt J., *What is it and how we do it?*

Zhukovsky I., *Project method in the educational institutions of France.*

## **Abstract**

The basic positions of project-based learning in training future foresters are presented, determined students' commitment to this method and highlights students suggestions improve the teaching of special subjects.

**Key words:** the project, the method of project, design technology, education of forestry specialists.