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Project Technology in the System of Modern Professional Education

Tecnología de proyecto en el sistema de educación profesional moderna

Guzel Minnezufarovna NURULLINA

<https://orcid.org/0000-0002-4394-8446>

nurullinagz@mail.ru

Kazan Federal University. Russia

Ramil Kiryamovich RAMAZANOV

<https://orcid.org/0000-0002-4613-0535>

ramazanov.ramil@mail.ru

Moscow Pedagogical State University. Russia

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RESUMEN

El artículo está dedicado a uno de los temas de actualidad de la ciencia pedagógica moderna: la implementación del proyecto de tecnología de capacitación de estudiantes en el sistema de educación profesional moderna. La competencia principal formada en el curso de la tecnología de capacitación del proyecto es una competencia comunicativa que está dirigida al desarrollo de la actividad del habla de los estudiantes de diferentes especialidades. Los autores del trabajo consideran que la cultura indispensable del experto en el mundo competitivo de alta tecnología es la adquisición de las habilidades de comunicación profesional y el uso de los métodos de influencia y convicción del habla.

Palabras clave: Competencia comunicativa, condiciones pedagógicas, educación profesional, formación profesional, tecnología de proyectos.

ABSTRACT

The article is devoted to one of the topical issues of modern pedagogical science – implementation of the project technology of training of students in the system of modern professional education. The main competence formed in the course of the project technology of training is a communicative competence which is aimed at the development of speech activity of the students of different specialties. The authors consider that the indispensable culture of the expert in the hi-tech competitive world is acquisition of the skills of professional communication and use of the methods of speech influence and conviction.

Keywords: Communicative competence, pedagogical conditions, professional education, project technology, vocational training.

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INTRODUCTION

The modern system of professional education at the higher school is directed to the strengthening of the practical orientation of the training assuming introduction and implementation of the project technology of training. At the present stage of the development of the society valuable characteristics of the highly qualified specialist are self-development, self-education, self-projecting and self-improvement of the personality. The technology of the project training is directed to the acquisition by students of necessary knowledge, abilities and skills, to the formation of such qualities of the future experts as mobility, constructiveness, achievement of effectiveness, ability to enter a dialogue, to support communication in a group activity.

It is known that the integral culture of any expert (the philologist and non-philologist) in the hi-tech competitive world is the acquisition of the skills of professional communication, the use of the methods of speech influence and conviction. Therefore, the problem of the given research is creation of the pedagogical conditions providing the formation of the communicative competence of the students in the course of the project technology of training. The analysis of scientific and methodical works (Bleek: 1968; Henry:1994; Fatkhutdinova: 2014; Safonova & Lukoyanova: 2016; Marisah & Robiasih: 2017; Nurullina et al.: 2018; Shakirova et al.: 2019; Zabuga et al.: 2019) shows that the scale of the tasks facing the modern society increases the relevance of the project technology in the system of modern professional education.

The practice of the project technology of training shows that students often face the problem of perception, understanding of scientific information. Work with scientific texts is for students of complex mental activity, including the synthesis and systematization of the knowledge gained by the reader-recipient. In the process of perception of a scientific text, a student may experience difficulties associated with misunderstanding of the semantic content of the text: the reader does not have a good knowledge of existing knowledge, does not understand the meaning of the text due to the presence of a large number of terms, abstract vocabulary, complex syntactic structures.

METHODS

The project activity was for the first time introduced into school education at the beginning of the XX century in the USA: the American scientists of J. Dewey, H. Kilpatrick, E. Collings allocated "learning by doing" as the conducting principle of training (Dewey: 1916) according to which the students conducted their own research during which the creative material collected by them (an educational product) allowed to explain the scientific and vital phenomena. The method of projects can be considered as one of the personality focused technologies of training integrating in itself a problematic approach, group methods, reflexive, presentational, research, search and other techniques.

The didactic value of the project can be considered in two aspects:

1) From the teacher's point of view the project is a tool of development, training and education generating the abilities, skills and competences including the following stages: a problem defining, goal-setting and planning of the activity, introspection and reflection, search and comprehension of information, development of methods of the research, use of knowledge and skills in unusual situations.

2) From the students' point of view the project gives the chance: to solve an interesting problem, to work independently or in group, to show the opportunities as much as possible, to set the educational purposes and to look for the ways of their achievement, to prove, try the hand, to apply life experience, to be useful, to show the result of the work in the public, to estimate result, to declare oneself.

In the context of professional formation of the identity of the student in the course of the project technology of training the use of different methods and techniques is considered the most fruitful:

- Method of conversation (heuristic, reproducing, reporting, generalizing) assuming dialogue between the teacher (tutor) and the students mainly on the teacher's questions. The conversation speeds up the mental work of the students, maintains attention and interest, develops the speech.

- Method of the solution of cognitive tasks. Kinds of informative tasks are teaching and cognitive (the teacher offers a task and solves it, showing to students the way and the course of its decision); training and cognitive (students solve tasks similar to the shown); search and cognitive (students independently solve problems).

- Method of work with the scientific and reference literature and with fiction, assuming drawing up the plan or theses by pupils, writing essays, preparation of a report.

- Research method which is treated in modern didactics as follows:

It is designed to provide, firstly, the creative use of knowledge, secondly, mastering methods of the scientific cognition of the process of search of these methods and their application. Thirdly, it forms... features of creative activity. And, fourthly, it is a condition of the formation of interest, the need for such kind of activity as the motives which are shown in interest, and requirements do not arise out of activity. Only activity is not enough for this purpose, but without it this purpose is unattainable. As a result the research method gives the full, well conscious, quick and flexibly used knowledge and forms experience of creative activity (Lerner: 1981; Cohen: 2007; Gómez-pablos et al.: 2017; Stehling & Munzert: 2018; Usmeldi: 2019).

RESULTS

The project technology has essential features which are shown at all stages of its preparation and realization: subjectivity, dialogicity, creativity, integrity and technological effectiveness. The project technology is aimed at the development of the students' self-organization, self-education, and comprehension of the educational activity from the positions of valuable approach (Novikov: 2000; Polat et al.: 2009; Jalinus et al.: 2017; Wicaksana et al.: 2017; Alves et al.: 2018; Pinter & Cisar: 2018). Working on projects, the students seize a complex of communicative abilities, learn not only to get knowledge independently and to integrate it, but also to act with a word consciously to the extent possible and according to the situation and to the problem of communication. In our work we tried to analyze each of the features of the project technology.

<i>Important features of the project technology</i>	<i>Characteristics</i>	<i>Recommendations to the teacher</i>
Subjectivity	Any student is the subject of activity, the developing personality, the identity with motivational sphere inherent only to him. Accounting of subjectivity helps to define an individual trajectory in the educational route.	The logic of the scientific activity of the students in the project allows work on the individual schedule in the form of the advancing independent researches under the teacher's guidance.
Dialogicity	Dialogicity helps students to exchange views, to hear and to listen, to understand "foreign language" in the course of implementation of the project.	In the project technology the observance of organizational tasks is important: 1) distribution of roles within the groups; 2) observance of the rules and procedures of collective discussion, performance of the accepted role; 3) performance of the collective task; 4) coherence in the discussion of the problem and elaboration of the general, group approach.

Creativity	Creativity is connected with solving of the problem situation, activation of cogitative activity and independence. The students resort to original, non-standard modalities of action and results of performance.	The tasks are concrete and substantial: creative reconsideration of the opportunities of using the knowledge, creative approach to the performance of educational and labor tasks, development of independence in the process of decision-making, desire to apply the gained knowledge and abilities with advantage to themselves and to people around.
Integrity	Synthesis of knowledge, data from different sciences for the research of the problems and the students' realization of the studied question.	The mobility of thinking of the expert is constructed on the general principles of the scientific thinking including induction, deduction, analysis and synthesis, analogy, comparison, experiment, and observation.
Technological effectiveness	Organization of the cognitive activity of the students at separate stages of the project.	The main methodological requirements of technological effectiveness are: conceptuality; systemacity; controllability; efficiency; reproducibility.

Table 1

DISCUSSION

The practice of the project technology of training shows that students often face the problem of perception, understanding of scientific information. Work with scientific texts is for students of complex mental activity, including the synthesis and systematization of the knowledge gained by the reader-recipient. In the process of perception of a scientific text, a student may experience difficulties associated with misunderstanding of the semantic content of the text: the reader does not have a good knowledge of existing knowledge, does not understand the meaning of the text due to the presence of a large number of terms, abstract vocabulary, and complex syntactic structures.

In the project and research activity the communicative competence is formed on each stage of work – the student answers questions of a problem statement. The table below describes each stage of the research and project activity.

Stages	Goals of the stage	Questions of problem defining (for the communicative competence)
<i>Problem defining</i>	<ul style="list-style-type: none"> - motivation; - choice of the area; - formulation of a problem; - formulation of a subject of the project; - updating 	What are you interested in? Do you want to learn about ...? How is it possible to fill a gap in your knowledge? Why is it important for you? Why is it important for others?

<i>Goal-setting</i>	Statement of the purpose, promotion of hypotheses (assumptions) of the achievement of the goal, and discussion of options of an estimated product of the project. Allocation of an object and a subject of a research. Specification of a formulation of a subject of the project	What do we want to learn? What question do we want to answer as a result of this work? What is it necessary to do to solve this problem? If you make such product will you achieve the goal of the project and will the problem be solved in this case? Are there any assumptions (hypothesis) how to achieve these objectives? Can you allocate the main stages of the achievement of the goal (statement of the tasks of the project)?
<i>Planning</i>	Step-by-step development of the project with the indication of the list of definite actions and results, of roles and duties, of terms and responsible students.	What steps do you have to do from a project problem up to the realization of the purpose of the project? What is it necessary to do to achieve the project goals? How will you solve these problems? When will you do it? What do you already have for the performance of the forthcoming work; what are you already able to do? What can you do yourself?
<i>Project implementation</i>	Updating of the formulations of the purpose, of the subject, project tasks if needed. Implementation of the planned activity in the required terms.	Does the found and processed information comply with the announced subject and purpose of the project? Is it necessary to look for the extra information or is it enough to achieve the goal? Is it necessary to correct the formulations of the purpose, tasks, and project subjects to make them more clear and concrete? Haven't you lost the interest and if have why?
<i>Creation of the product of the project</i>	Integration of the gained knowledge, abilities, skills. Receiving documentary part of the product, the project description, final filling of the folder of the project. Creation of a product and definition of the form of its representation.	Does the received result answer the goal? How is it necessary to organize the presentation of the results of project activity? How can you provide the product presentation so that it would be interesting, clear and work of all developers of the project would be visible? In what ways is it possible to interest the listeners? Are you ready to protect the project? What are the main ideas of the project?
<i>Presentation of the product of the project</i>	Demonstration of the materials, representation of results.	Are you ready to the presentation of the results of your work? What help do you need? Are any rehearsals in public necessary? Whom do you want to show the results of the work before the protection of the project? Whom are you interested to hear reviews of the work from? Whom would you recommend to get acquainted with your work?

<p><i>The report on the done work</i></p>	<p>Summing up on the compliance to the criteria of success designated at the beginning of the work. Checking up on the compliance to external criteria. Assessment of the effectiveness, level of independence and overall performance. Checking up on the compliance of the purposes and the results of the work.</p>	<p>Why have you begun developing this project? The satisfaction of what requirements is it directed to? Does the idea chosen by you correspond to these requirements? What are comments of the people, whose requirements your project have to provide? How to improve the project? Have you solved the problem? Did you formulate the purpose and tasks of the project correctly? Did your activity correspond to the goals? Were the ideas various? Did you justify the decision when choosing one of them? Was the study of the chosen idea sufficient?</p>
<p><i>Forming of the prospect</i></p>	<p>Formation of the understanding of the infinity of knowledge. Answers to some questions have to generate others. Formation of the ability to ask questions as a way of motivation to get knowledge. Updating of everything that attracted keen interest during the work.</p>	<p>What is it possible to know more on this problem? What questions on this subject haven't you answered yet? What was remembered during the work on the project most of all? What abilities were not enough? What subjects of projects do you see for yourself in the future?</p>

Table 2

CONCLUSION

Modernization of the Russian state and formation of the civil society demand the education system to promote to the formation of the conscious citizen who is effectively participating in democratic process. In the solution of this task the ability to self-organization, ability to assert the rights, to participate in the transformation of the country becomes a priority reference point.

Process of adaptation of the education system to the essentially new conditions of the political democracy, to free development of the civil society, to the market economics is nowadays already noticeable. In these conditions, education undertakes the solution of the problems of the adaptation of youth in market economics through the formation of responsibility for their own welfare and for the condition of the society, through the assimilation by the younger generations of the main social skills, practical abilities in the field of economics and social relations.

Introduction of the method of projects into the educational process helps to decide one of goals set– to come to the main valuable reference point of the future expert. And it means the speech behavior optimum in any life situation at which the teacher flexibly operates with the knowledge, achieving the set goal. As the researchers conducted by us show, by means of the method of projects the development of critical thinking of the students is carried out, their scientific, informative, and creative activity is implemented. Orientation on the student's identity provides not only results of various level and quality, but also individual ways, forms, means of their achievement. That is why the project activity is considered as one of the optimum forms of the organization of work with the students in the course of formation and development of their speech activity.

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BIODATA

Guzel Minnezufarovna NURULLINA: born in 1984; candidate of pedagogical sciences; graduated in 2006 Tatar State Humanitarian Pedagogical University; defended her thesis "Formation of linguoculturological competence of bilingual students (Tatars) in the study of the category of the Russian language genus" in 2010; Associate Professor of the Russian Language Department and its teaching methods; research interests: theory and methodology of language teaching, cultural studies approach to teaching the Russian language, modern educational technologies.

Ramil Kiryamovich RAMAZANOV: August 10, 1982, candidate of pedagogical sciences, graduated from Moscow State Pedagogical University in 2007, defended his dissertation "Teaching Russian phraseology in a cultural history aspect at the lessons of speech development in schools with a multi-ethnic composition", associate professor of the Russian language teaching methodology Institute of the Philology of Moscow State Pedagogical University. Interests: Teaching the Russian language in the cultural aspect, fostering creative thinking in the lessons of the Russian language.