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## **CONTEMPORARY APPROACHES IN PROJECT MANAGEMENT EDUCATION IN BELARUS**

*In the article considers the implementation of the competence-based approach to the training of project management specialists through the harmonization of curricula for higher education training and retraining of specialists in the field of project management in accordance with international requirements for project managers.*

**Keywords:** *competence-based approach, educational program, individual competences, Project Management Association, certification of specialists, concept of «Life long learning»*

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## **СОВРЕМЕННЫЕ ПОДХОДЫ В УПРАВЛЕНИИ ПРОЕКТНЫМ ОБРАЗОВАНИЕМ В РЕСПУБЛИКЕ БЕЛАРУСЬ**

*В статье рассмотрена имплементация компетентностного подхода к подготовке специалистов по управлению проектами с помощью гармонизации учебных программ высшего образования подготовки и переподготовки специалистов в сфере управления проектами в соответствии с международными требованиями к компетенции проектных менеджеров.*

**Ключевые слова:** *компетентностный подход, образовательная программа, индивидуальные компетенции, Ассоциация управления проектами, сертификация специалистов, концепция непрерывного образования*

In the Republic of Belarus, specialists are education trained in project management disciplines at the first and second stages of higher education. In some specialties, retraining was introduced, allowing specialists to lead projects in their specialization. Different profiles and areas of education, providing training for specialists in the field of project management, have in their curricula requirements related to the competence of a specialist who provides professional project management.

The implementation of a competence-based approach to the training of project management specialists should determine the harmonization of higher education curricula for training and retraining in project management in accordance with international requirements for the competence of project managers.

The **relevance of the research** is to provide comparative information on the compliance of curricula for higher education training and retraining of specialists in the field of project management with international requirements to the competence of project managers.

The **purpose of the research** is to establish the compliance of curricula for higher education with the training and retraining of specialists in the field of project management with international requirements for the competence of project managers.

The Ministry of Education of the Republic of Belarus regulates that in developing curricula it is necessary to be guided by materials that predict the development of a specific area of socio-economic activity and determine the requirements for knowledge, skills and abilities of specialists.

According to the educational standard of higher education, competence is the knowledge, skills, experience and personal qualities necessary to solve practical and theoretical problems. Competence – expressed ability to apply their knowledge and skills (in accordance with STB ISO 9000-2006) [1, p. 5].

The educational standard in the Republic of Belarus refers to the composition of the competence of a specialist the formation of the following groups of competences [1, p. 9]:

1. **Academic competence**, including knowledge and skills in the studied academic disciplines, the ability to learn.

2. **Social-personal competences**, including cultural and value orientations, knowledge of the ideological and moral values of society and the state and the ability to follow them.

3. **Professional competencies**, including the ability to solve problems, develop plans and ensure their implementation in the chosen field of professional activity.

In educational programs for training specialists in the field of project management, the competence assessment system of project managers of the International Project Management Association (IPMA Individual Competence Baseline) can be taken into account, which has established requirements for professional project management [2]. These requirements are established through the collection, processing and standardization of generally accepted and applied competences in project management.

In accordance with the international standard IPMA Individual Competence Baseline, competence is a set of knowledge, personal qualities, skills and relevant experience necessary for the successful capacity of certain functions [2].

Based on the assessment of the competence of project managers, the International Project Management Association developed a universal four-level certification system for specialists (4-L-C IPMA) [3].

As previously noted, in the Republic of Belarus, specialists are educational trained in project management at the first and second stages of higher education. These training programs are implemented in:

1. *Belarusian State University, Faculty of Philosophy and Social Sciences, Department of General and Clinical Psychology – specialty «Social work», specialization «Social project management», qualification «Specialist in social work and project management»* [4].

In the context of trends towards ensuring social investment, training specialists who will be able to assess the consequences, preliminarily model, measure and evaluate the social context of project management is a necessary condition for achieving the goals of sustainable development of society.

Disciplines studied in the framework of the specialization «Social project management»: «Fundamentals of project management», «Model of technological maturity of the company in the field of project management», «Social projects and fundraising», «Construction of the Project

Management Office in the organization». The areas of knowledge in project management are also considered separately in the following field of knowledge: «Project Schedule Management», «Project Quality Management», «Methods and Tools of Project Scope Management», «Project Human Resources Management and Communications». And also, information technologies are studied in project management, the creation of an organization development strategy and the tools for modeling organization processes. It should also be noted, disciplines related to management decisions and professional ethics in project management.

2. *The Institute of Business of the Belarusian State University – a practice-oriented master's degree in «Designing complex integrated systems», qualification «Master of Systems Analysis and Engineering» [4].*

Determining the approach to the formation of a project management system in each case is an integral part of the software development process.

An important prerequisite for modern project management is the use of appropriate tools to ensure both group work and the collection of necessary information about the planned and actual work parameters carried out by the project team members. Familiarity with the main software products designed to support the work of project teams and provide documentary support for the software development process is a necessary requirement for the competencies of a modern specialist in the field of software development.

Within the framework of the discipline «Project Management», modern approaches to organizing the work of project teams are studied, acquaintance with the classical approaches is carried out on the basis of the «Stage and Gate» approaches as well as the «Waterfall» approach; consider «Agile» approaches to project management. As a result of studying the course, the skills of organizing work in project groups on the basis of both «Waterfall» and «Agile» project management methods are acquired.

3. *The Institute of Management Personnel of the Academy of Management under the President of the Republic of Belarus is a practice-oriented magistracy on the specialty «Investment project management in public-private partnership», qualification «Master of Investment Project Management» [5].*

Facilitating the implementation of the interaction of private business and public authorities in order to form and implement investment projects is the main goal of training management masters in the specialty «Investment project management in public-private partnership». Within this specialty, disciplines related to «Organizational development and change management», «Situational analysis and modeling of management decisions», «Investment project management», «Macroeconomic analysis and investment climate assessment» are studied.

This training allows a systematic approach to the initiation and implementation of the investment project of a public-private partnership, using the methods of strategic and financial management in its planning.

In some specialties, retraining has been introduced, allowing specialists to lead projects in their specialization. Examples of training programs for retraining may include:

1. *The «European Manager» retraining program, implemented at the Institute of Business of the Belarusian State University [4].*

The European Manager retraining program provides advanced training and the actualization of knowledge of highly qualified managers who meet the dynamically changing requirements in the modern labor market and the international level of professional education.

As part of the retraining program, an in-depth study of project management is carried out. Students learn disciplines related to the management economy, information technology in management, personal development, organization's human resource management and enterprise financial management, strategic management and change management. Within the framework of the project management discipline, the development of the project domain, scheduling and time management, project financing, risk management, organizational structures, measurement of project

implementation, change management, project portfolio management, project management features in the context of Belarusian reality are studied.

2. *The retraining program «Project Management in Construction», implemented in the branch of the Belarusian National Technical University «Interdisciplinary Institute of Advanced Training and Retraining of Personnel» [6].*

The retraining program provides education training for managers and specialists who carry out project management activities in construction and are capable of performing managerial functions in a complex multi-faceted construction project management process.

Within the framework of the retraining program, disciplines related to the basics and areas of knowledge in project management and software for project management are studied.

The authors of the study previously conducted a comparative analysis of the elements of the competence of the project manager and the requirements for the competence of the specialist in social work and project management by comparing the educational standard of higher education in the specialty «Social work» of the specialization «Social Project Management» on and specialization programs with a system for assessing the competence of project managers of the International Project Management Association (IPMA Individual Competence Baseline v. 3.0).

A comparative analysis assessed knowledge and skills in the disciplines of specialty areas. The analysis showed a priority direction in the training of specialists – effective behavior in a specific project situation.

Analysis of the elements of **technical competence** showed the possibility of successful initiation and management of the project. However, managing an economically challenging project, where project evaluation is required, managing procurement and changes will require the involvement of additional specialists in the project.

Analysis of the elements of **contextual competencies** showed that the specialists of the project knowledge needed by various support departments in the linear organization and the need to expand knowledge in the coordination of projects in the program and portfolio, financing mechanisms.

Thus, when drafting this education curriculum, the financial and economic unit in the cycle of disciplines of specialization will not be affected. This may be due to the specifics of the direction of the specialty. At the same time, there is a high level of training of specialists in the field of project management, allowing them to effectively behave in a specific project situation, initiate and manage a project.

A comparative analysis showed that the requirements for the competence of a specialist in social work and project management comply with the requirements for specialists of the level «D» of the four-level (4-L-C) IPMA specialist classification system [3].

A similar comparative analysis can be conducted for any higher education curriculum training and retraining of project management specialists, taking into account the already updated version of the international standard IPMA Individual Competence Baseline v. 4.0 Also, such a comparative analysis can be useful in drawing up, updating and changing curricula, being the rationale for making appropriate decisions.

The disciplines covered in the curriculum were compiled with international standards and approaches to the management of projects, programs and portfolios such as PMI PMBoK® Guide, PMI Program Management Standard, PMI Portfolio Management Standard, ISO 21503: 2017, ISO 21504: 2015, ISO 21505: 2017, IPMA ICB 4.0, IPMA OCB 1.1, IPMA PEB 1.1, Agile approaches, etc.

Thus, we can state some positive progress in the development of curricula for training specialists in the field of project management. However, it is not sufficient and stable.

One of the main problems in the implementation of training practice-oriented training programs for project management specialists in the Republic of Belarus is the lack of understanding of the importance of professional project management, which requires appropriate training of specialists,

as well as a lack of understanding of uniform requirements for training specialists in the field of management projects, taking into account international standards and requirements.

The considered educational programs, perhaps, even if in the form of separate disciplines, are implemented in other higher educational institutions of the Republic of Belarus. However, it is difficult to present a holistic view of the place of project management in the higher education system in the Republic of Belarus.

Partly, this is difficult, according to the authors, that there is no unified coordination center of competence in the Republic of Belarus. From the point of view of the academic approach, there is no specialty from the Higher Attestation Commission related to project management (the only one similar in content is 08.00.05 «Economics and National Economy Management, by branches and areas of activity»). There is no similar *Center of Competence* in a professional business-oriented environment – there are no professional associations that are members of the International Project Management Association or the Project Management Association. Accordingly, the quality of training in the field of management leaves much to be desired, both in the field of «classical» university education and in the field of «business education» – only a small number of training programs are conducted by teachers (or business trainers) who they themselves would be existing certified specialists eligible for such programs (with corresponding accreditation from recognized professional organizations in the field of project management in the world).

As a rule, there is no practice of recognizing internationally recognized certification systems for project managers, such as IPMA or PMI, as evidence of the high professional qualifications of even that small number of certified specialists working in the Republic of Belarus.

The national system of standards in project management is also poorly developed – there is only one standard (STB ISO 21500-2015 [7]), on the quality of the translation of which additional work is needed.

Thus, without taking into account recognized international requirements for the training of specialists in the field of project management, we risk remaining below the threshold of introducing progressive changes and developing professional management activities, and our specialists will not be able to be sufficiently competitive in the international professional labor market.

Comparative analysis showed the possibility of integrating the certification system (competency requirements) into the educational process could also become the basis for planning future professional development of future specialists without interrupting communication with the higher education institution, which will create as prerequisites for the development of the concept «*Life long learning*» in preparing for professional management of projects as well as programs and portfolios.

In conclusion, it is necessary to add, that the emergence of such «Centers of competence» would bring, in the authors' opinion, immense benefits both to the system of business-oriented education and to the economy of the country as a whole. But, in any case, these should be interrelated «Centers of competence» – both from the training of personnel of higher scientific qualification (the creation of a scientific specialty «Project management», the formation of expert councils, etc.) and by the professional community (the creation of a national Project Management Association) and ensuring their effective interaction.

Examples include any of the nearest neighbors of the Republic of Belarus – the Russian Federation, Ukraine, the Baltic countries, Poland – all of these countries have programs for training project management specialists, and there are also national certification centers (based on IPMA, in particular).

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