

## SCTCMG 2019

### International Scientific Conference «Social and Cultural Transformations in the Context of Modern Globalism»

#### DESIGNING A MODEL FOR MANAGING EDUCATIONAL PROGRAMS IN UNIVERSITIES

Elena Khokhlova (a)\*, Nelli Tunina (b), Nadezhda Klushina (c), Yuri Lobeiko (d),  
Elena Goverdovskaia (e)  
\*Corresponding author

(a) Stavropol State Agrarian University, 12, Zootekhnicheskoy Lane, Stavropol, Russia,  
kach-stgau@mail.ru, 89187840987

(b) Stavropol State Agrarian University, 12, Zootekhnicheskoy Lane, Stavropol, Russia,  
tuninana0803@mail.ru, 89283242212

(c) North-Caucasus Federal University, 3a, Pushkin Street, Stavropol, Russia,  
kaf.socteh@yandex.ru, (8652) 33-06-63

(d) North-Caucasus Federal University, 3a, Pushkin Street, Stavropol, Russia, lobeiko@inbox.ru, (8652) 33-06-60

(e) Pyatigorsk Medical Pharmaceutical Institute of Volgograd Medical State University  
of the Ministry of Health Care of Russia, 11, Kalinin Prospect, Pyatigorsk, Russia,  
elena\_goverdovskaya@mail.ru, 8-928-225-20-29

#### *Abstract*

The article presents the results of the analysis of scientific literature on the management of educational programs in universities and the experience of interaction with employers in terms of clarifying opinions on the direction of development of various professional fields. It has been established that today leading educational institutions of higher education are following the path of forming a management system for educational programs. The researchers of this issue presented models of educational programs management systems. Modernization of educational process management systems in universities is taking place with a shift in managerial focus from the management of faculties and departments to the management of educational programs. Management of the educational program is a special kind of professional activity for which a new personnel position is required. In the Russian practice of higher education management, such specialist is the head of the educational program. The institute of heads of educational programs is necessary in high school. Educational programs should be in demand among potential consumers of educational services. In this regard, it is necessary to modernize existing educational programs to focus on the strategic development of industries and territories. The experience of the annual monitoring of the level of development of graduates 'competences in educational programs is shown: the definition of the most important in terms of the requirements of modern production of graduates' competencies; assessment of the situation in individual production areas to identify areas for improving educational programs and increasing the level of social and professional adaptation.

© 2019 Published by Future Academy [www.FutureAcademy.org.UK](http://www.FutureAcademy.org.UK)

**Keywords:** Educational program, agricultural education, management model.



This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 Unported License, permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

## 1. Introduction

Modernization of educational process management systems in universities, where this process has already taken off, as, for example, the introductory metropolitan universities, federal and supporting universities, is shifting the management focus from managing faculties and departments to managing educational programs.

In this regard, it is relevant to develop an effective model for managing educational programs in agricultural universities, which should link in itself the academic and administrative management of educational programs.

## 2. Problem Statement

An analysis of the scientific literature has shown that many leading universities in Russia are following the path of forming a management system for educational programs. Researchers of this issue presented models of educational program management systems (Loginov & Goncharova, 2015; Samerkhanova & Imzharova, 2017).

Interesting one is the study of Baranova (2016), in which the management of the educational program is highlighted as a special kind of professional activity for which a new personnel position is required - a specialist (manager) in the management of the educational program. In the Russian practice of higher education management, such a specialist is the head of the educational program.

In scientific articles, great attention is paid to the institute of educational program managers, namely, the necessity of its introduction in universities is described, the functional responsibilities of the educational program manager, the structure and content of his professional competence, methods of its interaction with stakeholders, ensuring interdisciplinary communication, and the experience of implementing this Institute in separate universities (Gabysheva, 2017; Prokhorova, Petrova, Emelina, & Ushilova, 2017; Pesotsky & Baranova, 2016).

There are studies devoted to the study of the motivational profiles of the managers of educational programs, their material incentives, the effectiveness of the work of the leaders of educational programs (Prokhorova & Lebedeva, 2018; Stuken, 2017).

The experience of introducing the institute of management of educational programs in individual universities, presented in scientific articles, is cases of Russian universities (Zinkovsky & Savelyonok, 2018; Gabysheva, 2017) seems interesting and quite practical. Analysis of the material suggests that the management of educational programs in universities is a viable and effectively working mechanism that can ensure the competitiveness of educational programs of higher education, quality training of personnel with regard to the needs of the labor market and their guaranteed employment.

Interesting is the experience of managing educational programs of the National Research University Higher School of Economics presented by Gergert and Artemyev (2016) as well as questions posed by them for further research of the functional of the academic director of the educational program and the effectiveness of his work.

The foreign scientific community also discusses issues of improving educational programs (Pérez-Foguet & Lazzarini, 2019; Forcael, Garcés, Bastías, & Friz, 2019) and the quality of training (Jung, Song,

Jang, Chong, & Cho, 2019; Suleimankadieva, Slavetskaya, Fomicheva, Tumarova, & Dobroserdova, 2019).

### **3. Research Questions**

The subject of the article: a study of modern approaches to the management of educational programs, modeling of educational programs in universities and the possibility of implementing these approaches in the system of higher agricultural education in Russia.

### **4. Purpose of the Study**

Purpose of the study: to identify modern approaches to the management of educational programs, modeling educational programs in universities and analyze the experience of universities in the introduction of new mechanisms for the design and management of educational programs of higher education

### **5. Research Methods**

The methodological basis of the study was the analysis of publications on the research topic, the results of the study of the opinions of employers who participated in the design of educational programs on the example of the “Agroengineering” training area, including using the CDIO model.

### **6. Findings**

The proposed and proven in the scientific literature theory of management of educational programs, as well as already gained experience in this direction, allow you to design an effective solution for a particular object, namely the sectoral agricultural university. However, during the design process, there may be solution problems that are not yet presented in the scientific literature. For example, the relationship and interrelation of the academic and administrative management of educational programs, the transition to the financing of the educational program, etc.

When developing a model for managing educational programs, it is necessary to summarize the existing experience of other universities, and also to take into account the results of research in this area and recommendations made on their basis for improving the institute of educational programs management system.

For example, the material studied on the modernization and improvement of the quality of agricultural education suggests that there is currently a catastrophic shortage of qualified specialists, which correspond to today's realities of agricultural development and breakthroughs in the direction of modernizing and updating the material and technical base using modern biotechnology, multi-operational, automated, robotic agricultural complexes, the creation of domestic x highly productive varieties of agricultural crops and animal breeds (Bautin, 2016). Agricultural specificity of educational programs is a competitive advantage of agricultural universities. Improving the quality of industry education and its competitiveness is today the main guideline in the work of agricultural universities (Korshunova, 2016).

Educational programs should be in demand among potential consumers of educational services. In this regard, according to Buraev (2017), it is necessary to modernize the existing educational programs in order to focus on the strategic development of all branches of the agro-industrial sector and rural areas, the requirements of professional standards, the regional labor market and the individualization of educational trajectories.

As experience shows, interaction with employers in terms of clarifying opinions on the direction of development of various professional fields makes it possible to annually update professional competencies on educational programs of the university.

The purpose of this study is to determine the views of employers on the most relevant areas of improving the professional competencies of graduates in the educational program. As part of the annual monitoring, an assessment is made of the level of development of the competencies of graduates for each UGSN; determining the most significant in terms of the requirements of modern production competencies of graduates; assessment of the situation in individual production areas in order to identify areas for improving educational programs and increasing the level of social and professional adaptation of graduates.

So, for example, according to the results of expert surveys (2018), employers in the agroengineering sphere should improve the block of disciplines related to teamwork, experimentation, and system thinking. The data presented in table 01.

**Table 01.** The most significant competences of graduates of the “Agroengineering” training according to employers (*average score on a 10-point scale*)

The name of the competence according to the CDIO standards	Average score
Team work	8,8
Experimentation, research and knowledge acquisition	8,7
Systems thinking	8,6
Ethics, fairness and other responsibilities	8,5
Communication tools	8,3
Analytical reasoning and problem solving	8,2
Position, thinking and cognition	8,1
Core knowledge of the fundamentals of engineering	8
In-depth knowledge of the basics of engineering, methods and tool	8
Production skills	8

Employers provide additional information on the preferred competencies of graduates of an engineering education program, which allows the design of an educational program to focus on international educational engineering standards (González-Vargas, Serna-Ramirez, Fory-Aguirre, Tombé-Andrade, & Soria-López, 2019; Harran & Theunissen, 2019; Takala & Korhonen-Yrjänheikki, 2019) and take into account the demands of the region’s labor market.

## 7. Conclusion

Summing up the analysis, it can be said that the model of management of educational programs in universities is going through the stage of institutionalization. The understanding of the content of the activities of educational program managers and their place in the management system and the

organizational structure of universities is determined. In addition, the mechanisms of influence on the content and management of educational programs of employers are being updated, which ensures an increase in the competitiveness of university graduates.

## References

- Baranova, N. V. (2016). The management of the educational program of higher education as a special kind of professional activity (analysis of the professional standard "Teacher of vocational education". *Pedagogical journal*, 4, 175–186.
- Bautin, V. M. (2016). Challenges of Agrarian Education Modernization and Problems of Personnel Training. *Economics of Agricultural and Processing Enterprises*, 5, 12–17
- Buraev, E. V. (2017). Agrarian education: place and role in the staffing of the AIC. *Vestnik of Agrarian Science*, 6(69), 101–107.
- Forcael, E., Garcés, G., Bastías, E., & Friz, M. (2019). Theory of Teaching Techniques Used in Civil Engineering Programs. *Journal of Professional Issues in Engineering Education and Practice*, 145(2), 02518008
- Gabysheva, L. K. (2017). Establishment of the institute of educational program managers as a tool for improving the quality of education in a higher education institution. *Society: sociology, psychology, pedagogy*, 7. Retrieved from: <https://cyberleninka.ru/article/n/sozdanie-instituta-rukovoditeley-obrazovatelnyh-programm-kak-instrument-povysheniya-kachestva-obrazovaniya-v-vuze>
- Gergert, D. V., & Artemyev, D. G. (2016). Academic Program Manager: Role, Functions, Efficiency Modern university between global challenges and local tasks. *VII International Conference of the Russian Association of Higher Education Researchers: collection of materials*, 237(1), 300.
- González-Vargas, A. M., Serna-Ramirez, J. M., Fory-Aguirre, C., Tombé-Andrade, J., & Soria-López, A. (2019). A low-cost, free-software platform with hard real-time performance for control engineering education. *Computer Applications in Engineering Education*, 27(2), 406-418.
- Harran, M., & Theunissen, H. W. (2019). Navigating the engineering literacy divide: design report collaboration practice realities. *Journal of Engineering, Design and Technology*, 17(1), 77–101.
- Jung, E., Song, K.H., Jang, D., Chong, Y., & Cho, E. (2019). The Beneficial Effects of an Autonomously Operated Engineering Education Outreach Program. In *A Case Study of the Servant Leadership Program Proceedings of 2018 IEEE International Conference on Teaching, Assessment, and Learning for Engineering* (pp. 944–949). TALE 2018, 8615426.
- Korshunova, L. N. (2016). Agrarian Education. *Problems and Prospects Agricultural Economics of Russia*, 1, 33–37.
- Loginov, M. P., & Goncharova, N. A. (2015). Using the project methodology for managing educational programs at the university Business. Education. Right. *The Bulletin of the Volgograd Institute of Business*, 4(33), 253–259.
- Pérez-Foguet, A., & Lazzarini, B. (2019). Continuing professional education in engineering faculties: Transversal integration of sustainable human development in basic engineering sciences courses. *Journal of Cleaner Production*, 218, 772–781.
- Pesotsky, Yu. S., & Baranova, N. V. (2016). Who should manage the university education program? (problem substitution). *Modern problems of science and education*, 5, 189.
- Prokhorova, M. P., & Lebedeva, T. E. (2018). *Study of the motivational profiles of managers of educational programs at the university*, 1(53), 139–146.
- Prokhorova, M. P., Petrova, T. V., Emelina, E. V., & Ushilova, K. V. (2017). Development of the content of the program for additional training of the head of the educational program of the university. *Problems of Modern Teacher Education*, 9(56), 202–209.
- Samerkhanova, E. K., & Imzharova, Z. U. (2017). Strategic guidelines for the management of educational programs in the Bulletin of Minin University, 1.
- Stuken, T. Yu. (2017). Employee remuneration as a tool for the development of universities in the region (on the example of Omsk), the Bulletin of Omsk University. *Economy series*, 1(57), 205–2014.

- Suleimankadieva, A. E., Slavetskaya, N. S., Fomicheva, N. M., Tumarova, T. G., & Dobroserdova, I. I. (2019). Networking between Universities and Industrial Enterprises: Improving the Master's Program Proceedings of 2018. In *17th Russian Scientific and Practical Conference on Planning and Teaching Engineering Staff for the Industrial and Economic Complex of the Region* (pp. 65–66). PTES 2018 8604272.
- Takala, A., & Korhonen-Yrjänheikki, K. A. (2019). Decade of Finnish engineering education for sustainable development. *International Journal of Sustainability in Higher Education*, 20(1), 170–186.
- Zinkovsky, K. V., & Savelyonok, E. A. (2018). *The introduction of the institute of educational program managers (EPM). Case of the Ural Federal University: Coll. Iss. 2*. Ekaterinburg: The Publishing House Ural. University.