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УДК 378.014(497.2)

А. И. Мантарова, И. А. Ангелова

A. I. Mantarova, I. A. Angelova

*Институт по изучению обществ и знаний Болгарской академии наук, София, Болгария
«Карьерный центр» Центра обучения Болгарской академии наук, София, Болгария
Institute for the Study of Societies and Knowledge at Bulgarian Academy of Sciences, Sofia, Bulgaria
«Career Center», Training Center of the Bulgarian Academy of Sciences, Sofia, Bulgaria
mantarova.a.i@abv.bg, angelovaiglika@gmail.com*

ПОДГОТОВКА КАДРОВ ДЛЯ КОНКУРЕНТОСПОСОБНОЙ ЭКОНОМИКИ – СОТРУДНИЧЕСТВО МЕЖДУ ОБРАЗОВАНИЕМ И БИЗНЕСОМ

THE STAFF TRAINING FOR COMPETITIVE ECONOMY – COOPERATION BETWEEN EDUCATION AND BUSINESS

Аннотация. Рассматриваются вопросы политики Болгарии в открытости профессионального образования к профессиональным знаниям и навыкам применительно к современным требованиям экономики путем внедрения дуальной (двойной) образовательной программы применения проекта обновления образовательной среды, опробованной в университете лесничества, а именно на экономическом факультете управления с соблюдением требований бизнеса.

Abstract. The aim of this work is an overall view on the Bulgarian Policy in opening the secondary education towards professional knowledge and skills with reference to real / actual economy requirements, by introduction of Dual Educational Program applying a Project for updating the educational context, experienced in University of Forestry, especially for the Faculty of Economic Management and complied with the business requirements.

Ключевые слова: дуальное обучение, бизнес, образовательные программы, формы взаимодействия.

Keywords: dual training, business, educational programs, forms of interaction.

One of the main limitations of economic growth is the shortage of human resources with professional profiles having the capacity to develop a competitive economy. Increasingly, it claims that there is a gap between the needs and expectations of business and offered quality of workforce [1, 3, 4]. This applies both to staff, prepared in Universities and secondary schools. In response to this social need, specific for both levels of education, there are relevant policies implemented in Bulgaria.

A key step towards solving the problems related to the quality of the prepared specialists with University education, is the adequate updating curricula. To solve this strategic national task over 40 Bulgarian Universities financed by the Operational Program «Human Re-

sources Development» developed projects to update their curricula in accordance with the needs of the labor market. One of these projects was carried out by a team of faculty «Business Management» at the University of Forestry in the period May 2013 – May 2015 [2].

The Faculty Partners for the project realization are three organizations – business representatives, who train specialists FSS:

- Bulgarian Association for Alternative Tourism;
- Executive Forest Agency;
- Branch Chamber of Woodworking and Furniture Industry.

The main objective of the project is to improve the quality and content of curricula and teaching methods in the FSS of University of Forestry in accordance with the European Qualifications Framework (EQF) and National Qualifications Framework (NQF) to acquire knowledge adequate to the needs of the economy, skills and competencies and to develop a mechanism for their continuous updating through lasting relationships between the UF, related businesses and research institutes.

Main activities have been implemented to achieve this goal:

1. Research the business needs of specific knowledge and skills of staff.
2. Survey analysis of professional standards in the priority economic sectors for FSS.
3. Analysis of the current state of the learning process of the FSS.
4. Introduction of educational innovation in specialties of the FSS.
5. Pilot testing and phased implementation of updated programs.
6. Create an advisory board with representatives of Forestry, businesses and scientific institutions.
7. Determination of the scheme for sustainable cooperation among stakeholders.

The surveys conducted among business representatives are a key moment. They aim to establish:

- employers' requirements for knowledge, skills and competencies of university graduates;
- willingness of business representatives from the three industries for various forms of cooperation with the Faculty of Business Administration;
- willingness of teachers to facilitate the implementation of a sustainable mechanism for updating curricula;
- assessment of students realization of educational innovations, updated programs and quality of the learning process;

The survey covers of 176 employers totally, in sectors of alternative tourism, wood processing and furniture industry and forestry. Respondents are owners, directors, managers and other personnel performing management functions. The distribution of respondents by sector is 43 – 68 – 65. The sample is in two stages. The first stage is making typological selection according to the type of activity (for sectors Alternative Tourism and Forests) or according to the type of the legitimate person (Sector Wood and Furniture). The second stage is making a random selection of units for testing in each of the so formed groups. The method of registration used is direct individual survey: respondents themselves filled out questionnaires.

The questionnaire has an identical structure for all three sectors. 5 blocks issues are formed:

- knowledge, skills and competencies required of employees in the sector;
- preparing of graduates of FSS in forestry;
- cooperation between businesses and forestry;

- general information on the institution – employer;
- personal information for respondents.

The differences are in the specification proposed to assess knowledge, skills and competencies they covering different range of those as per the specifics of the sector.

Another important activity was the *determination and the establishment of various forms of permanent interaction* between the University and Business – from regular contacts, networks, dialogues to the formation of an Advisory Board whose main task is to discuss entering the relevant sectors innovations and facilitate their reflection in educational programs. The main objective is the creation and putting into practice a sustainable mechanism for updating the curriculum to ensure their continuous improvement and adaptation to changing business requirements.

A self-management in relation to Higher education allows to respond quickly and to innovate organizationally and in a meaningful term, The Faculties orientate their strategies towards developing an «Economy – based on knowledge» in the context of the EU. The situation in the Secondary education is not so flexible.

The New Education Law introduced additional opportunities to acquire adequate qualification. The Law reconsiders the status and activities of professional management in colleges. The «dual training» was introduced as a successful model. The model is based on experience of Germany, Austria, and Switzerland.

The main emphasis in the *reform of vocational education* is the change in the ratio of theoretical and practical training in favor of the practical and the exercise of professional skills in the work environment of the first steps in learning. In the words of Vice – Minister L. Petrov (MES) at a meeting in Germany in 2016 by «The introduction of dual system of vocational training adapted to the conditions of the Bulgarian economy can be seen as a potentially effective measure to promote youth employment» mainly for the Bulgarian production. (Interview during the workshop «Education, Business»)

The introduction and development of dual training model in Bulgaria aims to provide industry with appropriately qualified staff and increasing the attractiveness of the production environment, especially for young people. An additional aim of duality education is learning the necessary skills and practice patterns for a smoother adaptation of a young man working in a team. The same concept is associated with the development of training firms in schools, promote entrepreneurship among learners and regional policies to link business education.

In the Law making social partners are actively engaged: Bulgarian Industrial Association – Union of Bulgarian business. Proposals come from the Associations, they address the Committee on Professional Education in the Ministry and synchronize existing European practices with the national ones.

Governing framework for student practicums and practice of different duration was legally established to adjust mutual relations between: educational institutions – employers and grant training status of those who deliver experience-so called Mentors – practicing and training employees in a real production environment.

The new form somehow solves the issue of financing of education and the linked practices with subsequent employment.

Dual education resolves the problem of education for teachers / practice teachers in schools. Business sets new and increased demands on teachers in schools. The education system accumulates practitioners in the sector slowly. There are usually few willing candidates and they have difficulty finding jobs to become regular teachers, although there is a demand

for quality teachers and training courses in general education exist in specialized colleges, related with the larger Bulgarian Universities (e.g. «Higher University College to Technical University» Sofia, named «Engineering pedagogical Faculty» It is located in Sliven. (There are colleges in Yambol, Sofia, and Stara Zagora.)

Measures of the quality of vocational training based on competencies require periodic updating and revision due to sweeping changes occurring in entire sectors based on «Jobs of the Future»:

- robotics, digitization;
- development of new materials and production technologies.

It is expanding the forms of professional qualification, and new forms of cooperation with non-formal education.

The first steps of reform of vocational education were presented by the Deputy – Minister L. Petrov on meeting in Germany, 2016. He reported that during the 2015–2016 school year, Bulgaria has launched pilot projects in the field of dual system of education: admission plan is set in 22 classes dual training at 12 regional centers at the request of the business in partnership with vocational schools.

Taking into account the state of reformation in vocational education at this time, Ministry of Education and Science further proposed and approved measures for temporary practice under the operational programs to raise interest among employers to organize and conduct practical training on the territory of their manufacturing enterprises.

An approval of the project «School Practices – Phase1» is pending under the National program «Science and education for smart growth 2014–2020». It aimed at improving the links between VET and business and to improve the practical skills of students to work in a real working environment.

Dual education is a reform in the secondary education system only, it would provide only partial result in the development of industry, if the Government does not also offer specialized legislation on investments. Legislation should allow a targeted support for businesses to improve qualifications for already employed workers. In this regards, the Government of Bulgaria undertook certain steps:

Under the Law on Investment Promotion / IPA / specific investment projects can be promoted through financial support for training and acquiring professional qualification.

Projects such as «stARTs» were launched, aimed at entrepreneurship training and Students' training enterprises and 10 training enterprises registered as «Student Company» were created within this project training over 200 students, which is a step in the right direction, providing that current students are possible future industrialists.

Competition «Brandico» which promotes knowledge to young people in the field of intellectual property and protection of the intellectual labor was also very important in the project.

The Social partners are active and also presented in the face of the German-Bulgarian Chamber of Industry and Commerce (GBCIC) created in her cluster «dual vocational training». European experience of the most serious and well-developed global economies, through its pilot projects and joint programs further stimulate the dynamics of the development and reformation of vocational education in Bulgaria. Such is the Bulgarian-Swiss program of cooperation for the implementation of the dual system of education in secondary vocational schools in Bulgaria, the pilot Austrian project of the Austrian Economic Chamber «dual training in Bulgaria», as well as projects financed by Bulgarian business professions' Mining Technician «Mechanical technician», «technician of precision engineering» and «technician of transport equipment».

A successful social development in a global and expanding use of new information and communication technologies imperatively requires a high correlation level between the qualities characteristics of all components in the social system, between all the elements involved in social interactions. The place and role of social participants therein define the feasible importance of the education system. To prepare professionals with the necessary characteristics corresponding to the real needs of other sectors of society, it needs to constantly update all of its internal components and to intensify its relations with the sectors – users of such a qualified staff.

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УДК 378.147.855:801.82

Т. Ф. Орехова

T. F. Orehova

*ФГБОУ ВО «Магнитогорский государственный
технический университет им. Г. И. Носова», Магнитогорск
Nosov Magnitogorsk State Technical University, Magnitogorsk
orehovna49@mail.ru*

АЛГОРИТМИЗАЦИЯ УЧЕБНОЙ ДЕЯТЕЛЬНОСТИ СТУДЕНТОВ КАК ТЕХНОЛОГИЯ ОРГАНИЗАЦИИ ОБРАЗОВАТЕЛЬНОГО ПРОЦЕССА В ВУЗЕ

ALGORITHMIZATION OF EDUCATIONAL ACTIVITY OF STUDENTS AS TECHNOLOGY OF ORGANIZATION OF EDUCATIONAL PROCESS IN HIGHER SCHOOL

Аннотация. Описывается апробированная автором технология алгоритмизации учебной деятельности студентов на примере отработки умения анализировать литературные источники по теме исследования.

Abstract. The article describes the technology of algorithms used by the author to algorithmize the students' learning activity using the example of training the ability to analyze literary sources on the research topic.

Ключевые слова: алгоритмизация, алгоритм, учебная деятельность, студенты вуза.

Keywords: algorithmization, algorithm, educational activity, university students.