

Interaction among universities and textile enterprises of Belarus

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Abstract: According to the workplan of the Tempus project "University and Industry for Modernization of the Sector of textile manufacture in Belarus" the analysis of the existing system of liaison Vitebsk State Technological University with the textile enterprises is being carried out. For identification of the existing problems connected with cooperation and the analysis of requirements for interaction questioning of university teachers, students of textile and economic specialties, specialists of the leading textile enterprises with various employment experience was carried out. The carried-out questioning allowed defining the most actual directions of improvement of the system of interaction among universities and industrial enterprises.

Key words: textile, education, liaison, Tempus.

6. Introduction

Despite competition from China, India and the countries of Central Asia, textile production in Belarus is the largest in Eastern Europe. It constitutes one of the biggest sectors in Belarus (over 150 enterprises apart from man-made and flax processing plants). Nowadays, Belarus manufactures textiles from cotton, wool, flax and man-made fibres.

The industry modernization sets new challenges for higher education. Among the priorities for higher education are: creation of new assortment of textiles, increasing of flax quality and other domestic fibres textiles, increasing of efficiency of wastes processing.

Educational institutions and industrial enterprises cooperate in the following areas:

- conducting of joint research and development (R&D);
- conducting of industrial internship and thesis projects;
- specialists of the enterprises improvement qualification;
- development of material and technical basis of the university;
- career-guidance work.

In each of the universities participating in the project, its own system of interaction, based on the existing departments, was developed.

Problems which were solved within questioning:

- to assess the actual system of the industrial interaction between enterprises and educational institutions;
- to define the degree of compliance of training programs to requirements of modern manufacture;
- to define the compliance of theoretical and practical experience of graduates to the requirements of labor market;
- to assess the role of interaction of educational institutions and the enterprises in the formation of young professional competence.

7. Characteristics of respondents groups

To identify the existing problems, related with the cooperation and needs analysis in collaboration, four groups of respondents were surveyed:

- teaching staff of the departments carrying out training of specialists for the textile industry enterprises and plants producing man-made fibers and filament yarns;
- graduates of corresponding specialties;
- experienced specialists of textile and chemical enterprises;
- young professionals of the enterprises (graduates of the last 5 years).

Specialists of 8 Belarusian textile enterprises took part in questioning:

- JSC "Vitebsk carpets" (Vitebsk);
- Orsha Linnen mill (Orsha);
- JSC "Mogotex" (Mogilev);
- JSC "Lenta" (Mogilev);
- JSC "Baranovichi Cotton Production Amalgamation" (Baranovichi);
- JSC "Gronitex" (Grodno);
- JSC "Polessye" (Pinsk);
- JSC "Rechitsa Textile" (Retchitsa).

While questioning 120 specialists (including 38 young professionals) of the enterprises were interrogated.

Among questioned specialists 7,7% personally face problems solutions which deal with interaction with universities several times a month, 44,9 % - several times a year, 30,8 % once in several years. The gained results testify that the respondents mainly are acquainted with the problems, touched in the questionnaire .

In Vitebsk State Technological University the questionnaire of 32 teachers touched the following departments:

- Spinning of Natural and Man-Made Fibers;
- Weaving;
- Technology off Knitted Goods Manufacture;
- Commercial Activity;

- Management.

Also there were questioned 93 students studying on the following specialties:

- Technology Of Yarns, Woven, Knitted Fabrics And Nonwovens;

Specializations:

- Spinning of Natural Fibres;
- Preprocessing and Spinning of Bast Fibres;
- Technology of Fabrics;
- Technology of Knitted Fabrics;
- Art Design of Textiles;
- Economic and Industrial Engineering (Light Industry).

In total 245 people were interrogated.

8. The result analysis of the questionnaire

Specialists of the enterprises unanimously estimate universities as a source of experienced staff. The vast majority of the respondents consider career assignment at an enterprise after university study to be compulsory (91,1 %).

About 80% of the respondents consider that the level of graduates training substantially conforms to the requirements of industry, and in the course of work at the enterprise it is possible to raise this level. In the course of work at the enterprise the expert should solve a number of tasks which go far beyond the education program. It is connected with the expansion of the sphere of his activity or with equipment and production technology improvement. 82% of the specialists are sure of the need of increasing their skill level within the actions organized by higher education institutions.

The graduates estimated differently the experience of RD which they worked at while their study at the University, including their diploma projects. Most of the respondents consider their experience to be useful. But almost half of the respondents consider their methods of the research work to be far from reality. This can be explained by that as a rule the research methods applied in manufacture are simplified in comparison with those studied at university and the objectives of the research are limited with the frames of concrete manufacture.

Important question from the point of view of labor market analysis is the need of the enterprises for experts of various categories. Analyzing the results of questioning, it is possible to note that at the textile enterprise experts of technical profile - assistants to foreman and technologists, and also operators of the equipment and the foremen are the most demanded (Table 1).

A separate question pool was devoted to the externships organizations at textile enterprises. One of the objectives of externship is to introduce work conditions to students aiming to be able to choose the work place while the assignment. Students mention that more that in 40% cases they were discussed the question of assignment at which they used to have externship. It is rather a high figure as only half of the respondents graduate in the current year. Another positive fact which can

be noted is that most of such discussions were initiated by enterprise specialists, which acknowledges their interest in human resources renovation.

Variant	Mention percent
equipment operators	19,8
assistants of master	24,1
masters	17,3
foremen, their deputy shop foremen	5,6
technologists	22,8
chiefs	5,6
other variants	4,9

Table 1: Answers to the question «Which specialists does your enterprise need mostly?»

More than 40% of students-respondents wanted to be assigned to the enterprises where they used to have externships.

From all directions of interaction of the enterprises and universities as the most important teachers noted carrying out internship and thesis project, and then performance of research and development (Table 2). At the same time specialists consider to be vital such direction as qualification improvement.

Variant	Mention percent for different respondent's groups	
	Teaching staff of Vitebsk State Technological University	Textile enterprises specialists
research and development (R&D)	27,3	20,7
development of training courses and material and technical basis of the university	20,5	11,1
conducting of industrial internships and thesis projects	34,1	28,1
enterprise specialists improvement qualification	13,6	30,4
career-guidance work	3,4	7,4
other variants	1,1	2,2

Table 2: Answers to the question «Which questions of the university and enterprises interaction of the sector do you consider to be most important?»

The vast majority of the teachers (87%) expressed expediency of the development of the list of tasks in which decision the enterprises of the sector are interested. More than 77% of the teachers consider that for increase of satisfaction degree of the enterprises by the level of graduates training it is necessary to strengthen the participation of the enterprises in improvement of educational process.

At the same time the questionnaire shows that enterprises responsibility for preparation of young specialists should be leveled up. Almost half of specialists (46,8 %) consider that the enterprise should take responsibility partly for the level of graduates as well as 35,1% note that the enterprise and its specialists have nothing to do with the process of preparation of young specialists. The difference in responsibility assessment of educational process by stockholders is one of the main problems of interaction which should be solved to level up the qualification of specialists of textile sector.

9. Conclusion

The carried-out analysis allowed to reveal the most vital issues taking place in the course of interaction of universities and the industrial enterprises of textile, light and chemical industries.

The greatest concern of all groups of the respondents causes the organization of internship, in particular, availability of information and possibility of acquisition of practical experience. Among the important directions of interaction also joint carrying out research and development and improvement of qualification, both teachers of universities, and specialists of the enterprises is noted.

On the basis of the analysis suggestions for improvement of the system of interaction will be issued.



Tempus

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