

## Role of Education in the Preparation of Staff for the “Production of Textile Clothing” Sector

Angelina Terzieva\*

*Department of Economy and Management,  
University of Chemical Technology and Metallurgy, Sofia, Bulgaria*

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### ABSTRACT

*Professional training of future staff is one of the levers for successful business. Upon entering of new technologies, the requirements towards the qualification and skills of company's personnel increase all the time. Technical development and scientific progress turn into a major priority for many research centers, universities and companies in the last years. The professional preparation of people for the production sphere is of exceptional importance for their further career development. All this imposes serious challenges in front of the small and medium-sized companies, where they need to appoint well-qualified staff.*

*The present paper discusses the preparation of staff for the “Production of textile clothing” sector, the normative base, the significance of higher education, as well as the approaches and mechanisms adopted in respect of employment amongst youths and their professional realization in the sector.*

*Keywords: preparation of staff, production of textile clothing, mechanisms and approaches, labor market.*

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### INTRODUCTION

Production of clothing is one of the oldest, entirely differentiated and traditionally significant sectors of industry. In the past, as well as today it occupies an important place in the economic life of the country, ensuring satisfaction of the needs of the population for clothing. In respect of the Bulgarian conditions, the sector may be characterized by its good resource provision, availability of material-technical base, established production traditions. Well-known European and world companies have already disposed of it and invested considerable amounts

in the establishment of enterprises for production of clothing in our country.

Market requirements and trends change quite fast, and it is hard for the producers to react dynamically - materials, labor and information resources have a definite framework in time, and in the space. Because of this in many enterprises the production management system suffers serious deficiencies, requesting improvements.

The introduction of high-tech systems and technologies in production necessitates increasing the requirements to the qualification and skills of the firm personnel. Each company, interested in its future development, invests in

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\*Correspondence to: Angelina Terzieva, University of Chemical Technology and Metallurgy, 8 Kliment Ohridski blvd., 1756 Sofia, Bulgaria, E-mail: Ani\_terzieva@abv.bg

human resources. Thus the preparation of staff for the production sector is of exceptional importance for its success in the future. The systematic professional development and upgrading of the firm's personnel is always a factor successfully influencing the profit of the company. The establishment of connection between the labor market and education is a major social-economic dependence. The results of different studies performed all around the world show that there is no company at the market that has not been successfully growing upon a good selection of staff.

The question of the organization of production activity is especially topical for the Bulgarian companies. They dispose with modern high-production equipment, but because of the bad discipline of workers and week organization of production, labor productivity is several times lower than that of the West-European companies. Production of clothing is governed by fashion. Constant changes in fashion trends necessitate frequent changes of nomenclature and re-adjustment of processes. This, on its part, necessitates the development of a new organization of production. The good organization and synchronized process flow provide the key to increasing the productivity of labor.

For long time the employers, trade unions and different professional organization have been discussing the problem on the shortage of well-qualified working power and sometimes losing the connection between the educational system and the demands of the business. The insufficiency of qualified working power turns into an obstacle for local investors as well. A major factor is the absence of appropriate candidates possessing the necessary experience and technical skills. The major part of employers express readiness to invest in training of staff and increasing of labor remuneration, though on the base of achieved satisfactory levels of skills and competences.

## RESULTS AND DISCUSSION

### Normative base and preparation of staff, aimed at encouraging employment in the "Production of textile clothing" sector

Holding of an educational and qualification degree is a factor, connected with the interests of the individuals. The acquisition of educational and professional background may be accepted as a process where human resources turn into a production factor. A number of studies show that the quality of labor depends on the knowledge

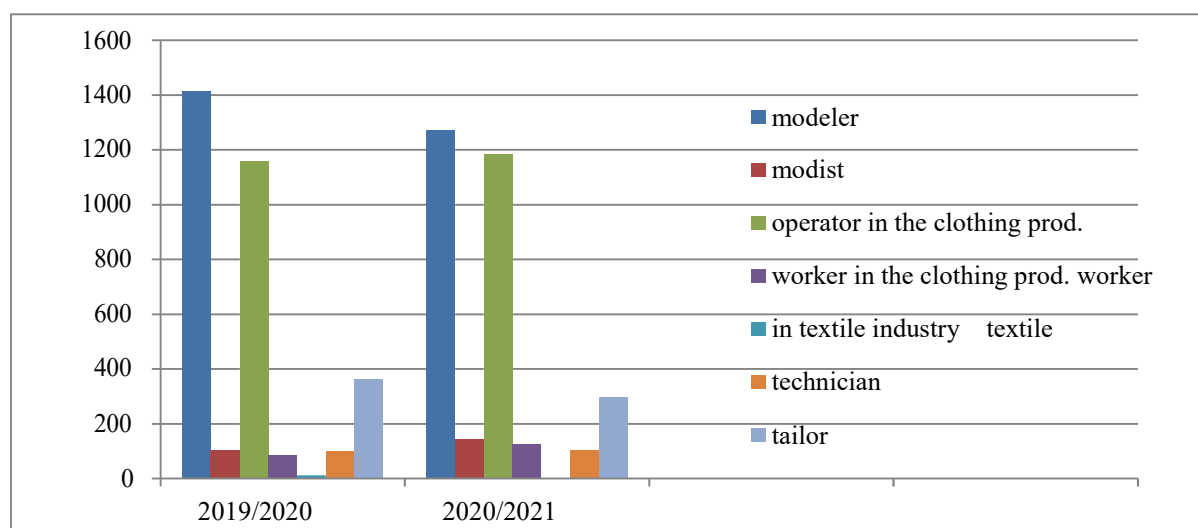


Fig. 1. Number of students per selected professions, according to the List of professions for vocational education.

and skills, on the education and professional qualification, and the efforts paid for their acquisition. A major factor for increasing the productivity of labor and the income of workers are the investments made in human resources [1].

The preparation of staff for the “Production of textile clothing” sector is carried out by the higher schools, technological colleges and professional gymnasiums [2, 3].

The data on the number of students per selected professions in the specialized gymnasiums (Fig. 1) for a two-year period (the school years of 2019/2020 and 2020/2021) exhibits clear trends to decrease [4]. Comparing data at the beginning and at the end of the investigated period shows, this year there are 113 students enrolled less than in the previous year. Amongst preferred specialties, the greatest share belongs to the profession of “modeler/ designer”, followed by “operator for the production of clothing” and “tailor”.

On the territory of Bulgaria function 52 higher schools in total. A little bit more than one-fourth are private, and the other are state schools. From the total number of higher schools on the territory of Bulgaria a small part educates workers for the

“Production of textile clothing” sector. During the last few years the traditional specialties were replaced by newly established ones preparing specialists of another orientation.

Of interest for the present paper is also the number of students in a detailed sphere of education: “Production technologies - textile, clothing, shoes and leathers” per specialties (Figs. 2, 3) [4]. A study on the education in Bulgaria, carried out at an earlier stage, shows that during the last years because of the lack of students the specialized desks in the mentioned higher schools and technical colleges have suspended their independent existence. They were facing closure, and a small part has merged with other desks. These negative trends in the years lead to decreasing the number of training staff and impossibility to provide education and performance of scientific-technical activity. Similar is the situation in the professional gymnasiums where, because of the insufficiency of students and appropriate material-technical base, some gymnasiums (that in Stara Zagora, Sliven, Shumen, etc.) no training for the pointed specialties is performed recently [5]. The trend is maintained nowadays too. Taking in consideration

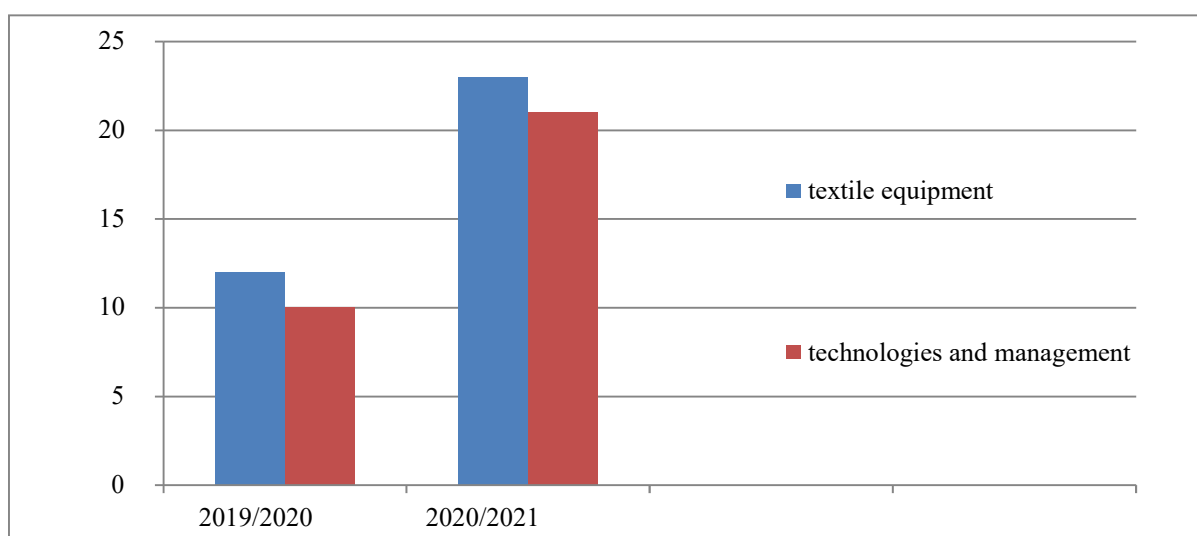


Fig. 2. Students in detailed sphere of education “Production technologies, textile and clothing, shoes and leathers”, per specialties and gender, following for Bachelor’s degree in the school years of 2019/2020 and 2020/2021.

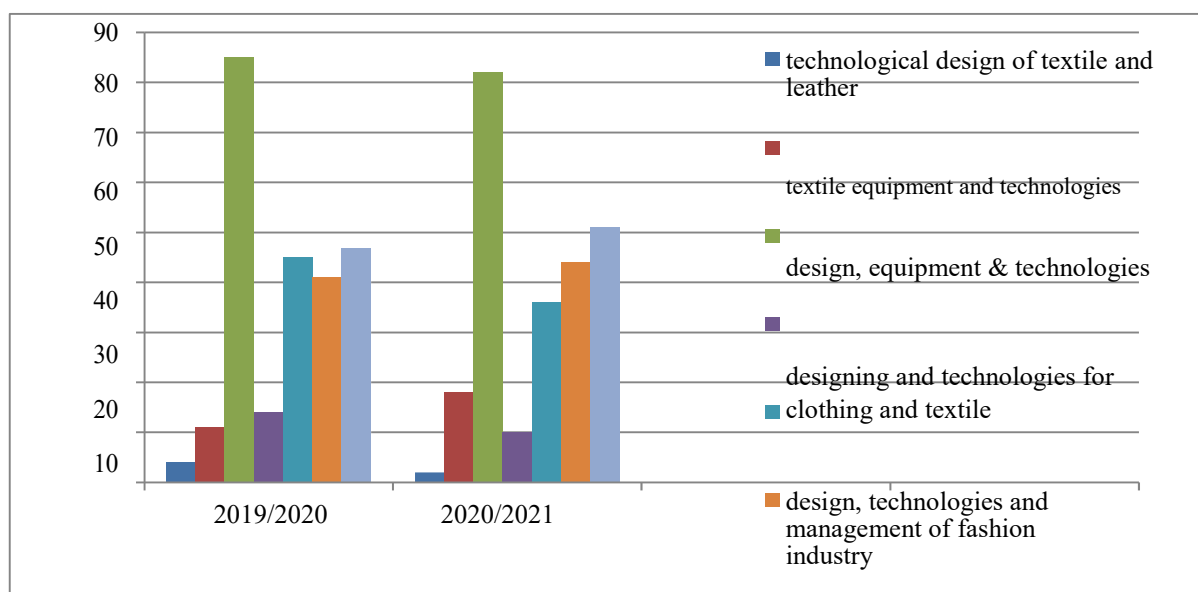


Fig. 3. Students in detailed sphere of education “Production technologies, textile and clothing, shoes and leathers” after specialties and gender, studying for Bachelor’s and Master’s degree in the school years of 2019/2020 and 2020/2021.

that the basic form of operation of the enterprises producing textile clothing is mainly working with materials supplied by the client, which does not include design, structuring and modeling.

Students express different interest in studying after the different specialties. Preferred are specialties such as design, equipment and technologies; the students enrolled for their following are of the greatest number; these are followed by modeling, technologies and management in the tailor’s industry. From the beginning till the end of the investigated period no significant change in the total number of students is observed. Some of the secondary school graduates do not continue their studies in the same field, or go studying abroad considering this would bring them better perspectives for career development, and better payment. Here is data on the professional qualification degrees of “Bachelor” and “Master”.

Based on the study made of students educated in professional gymnasiums and higher schools, we may draw the conclusion that they can not satisfy the needs of the labor market.

The sector of education, including the sector of our analysis, is influenced by a number of factors leading to different consequences and exercising diverse impacts on its condition and role in the Bulgarian economy. The major factors in general are of social-economic nature, a number of demographic factors, the low birth rate amongst the population, the high death rate and the large immigration flows, the bad social status of the population, the existence of social problems preventing certain groups from continuing their education, and whether they are ready to spent sufficient funds for education and professional qualification.

At the time being a large number of the existing enterprises do not dispose of highly qualified staff for the development and implementation of new technologies, to increase the volume and quality of production, for the development of a new product, new design, collections or other innovation activities. To that end the companies have to hire specialists which on many occasions are expensive or risky.

At the time being, the greater part of the

enterprises dealing with the production of textile clothing do not dispose of a scientific-research base. They do not perform independent research and development activity, though possessing potential for the development and implementation of innovative solutions. These enterprises are not leaders in view of process flows, but rather followers using technologies and innovations developed elsewhere. Where this trained is maintained in the next few years, the shortage of staff in the sector will increase, forcing the managers of the enterprises to suspend their activity or attract external working power, which is often expensive or risky.

In spite of the negative trends in respect of interest, the vocational training provides serious advantages at the labor market. This is also evidenced by the data on the educational level, occupancy and unemployment of the active population for the period 2019-2020, exhibited in Table 1 [6].

For the reported period, the total number of active population has decreased with 57.0 thousand people compared to the preceding year 2019, of them active labor power has decreased with 86.36 thousand people. This negative trend may be explained as a result of the strengthened demographic crisis and the significant immigrant flow during the last few years. The predominant part of the population is of secondary education. The new conditions of production, entering the stage of the technical revolution, request increasing of the technical base, which on its part requests more educated, qualified and skillful workers. Thus vocational training of staff for production needs greater attention. All this imposes the necessity for the acquisition of a higher degree of education. For the reported period, the number of trainees has increased with 28.7 thousand people, which is a positive token for the formation of highly qualified labor resources. The people having acquired professional qualification have higher degree of

employment, higher economic activeness and suffer lower unemployment. This is confirmed by the presented table. Employment amongst them is 15 % for 2020 - higher than that of the people of secondary education and by 19 % higher than the national average. The unemployment amongst the low-educated people is considerably higher than amongst the educated ones.

The long-lasting economic reforms, the economic crisis and ageing of population impose the necessity for greater flexibility and qualification of the capable people, to cope with the economic difficulties.

In all states the demand for highly qualified staff, on the one part, increases and changes, on the other part. Our country will need highly qualified human resources who will have to be able to develop technologies at a modern level and find effective solutions [7]. In this connection, higher education has an important role in the formation of highly qualified and socially engaged experts. Higher schools have to respond to the contemporary conditions, in respect of providing qualitative education, level of research and innovations.

### **Measures enhancing employment amongst youths**

Aimed at increasing the innovative potential of the enterprises from the “Production of textile clothing” Sector, stimulation of cooperation between innovative companies, the public and private research and development organizations is requested. There are several examples in Europe of establishing such partnerships. An example of a successful approach are the technological centers. Usually these are state and private research centers that accept orders for scientific-research projects of applicable nature from the industrial sector. Our attention should be drawn to raising the qualification of working power, gradual upgrading of vocational training. Of basic importance should be the preparation of

Table 1. Population at the age between 15 and 64, per age, educational degree and economic activity.

Educational degree	Total, thousands	Working power			People outside working power,	Coefficient of economic activity %	Coefficient of employment %	Coefficient of unemployment, %
		Total, thousand	Employed, thousand	Unemployed, thousand				
Total	4474.1	3276.4	3136.3	140.1	1197.7	73.2	70.1	4.3
Higher	1103.3	995.8	976.5	19.3	107.5	90.3	88.5	1.9
Secondary	2392.9	1847.9	1784.3	63.6	545.0	77.2	74.6	3.4
Secondary with professional qualification	1283.1	1070.9	1032.3	38.6	212.2	83.5	80.5	3.6
Total	4417.1	3190.04	3024.3	166.1	1226.7	72.2	68.5	5.2
Higher	1131.9	1016.9	991.3	25.7	115.0	89.8	87.6	2.5
Secondary	2336.8	1784.8	1699.5	85.3	552.0	76.4	72.7	4.8
Secondary with professional qualification	1249.3	1032.3	983.2	49.1	217.0	82.6	78.7	4.8

personnel of intermediate occupation. Bulgaria seriously drags behind the EU states in the professional qualification of people, as well as in the material base for their training.

The long-lasting economic reforms, the economic crisis and ageing of the population impose the necessity for higher flexibility and better qualification of the capable persons, to cope with the economic difficulties. One envisaged strategy is that of VE (2014); the concrete targets are related with increasing the quality of education. Higher schools are designated to be major centers for the development of science, understood as creating of new scientific knowledge.

In respect of the approaches and mechanisms undertaken to provide qualified staff to the business, one such mechanism is the establishment of inter-connection between universities and employers. This is attained through the established career development centers in the universities. The mission of the career development center is achieving high level of employment amongst the graduates of the universities, creation of prerequisites for the successful realization via career consultations, respecting market

demands. Thus, directing of students for their professional development is provided. Of importance are the annual forums "Careers and students" on career development, as well as the days of career practice with the participation of leading companies offering free job positions and probation programs for young experts and graduating students. Thus more efficient labor market is established. Career development is an inseparable part of the contemporary higher education.

The interaction of employers with organizations of higher and secondary specialized education is of completely different nature. The interrelation between labor market and education is a major socio-economic dependence. In most Bulgarian higher education institutions there are functioning units of long-life and post-diploma training. Established are also some good practices of joint development of curriculum and study programs with representatives of the business, aimed at increasing the employment capability. Yet, such practices are not widely distributed. The interaction of employers with organizations of higher and secondary specialized education is of completely different nature. The interrelation



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After the accession of Bulgaria to the European Union, the country got the opportunity to obtain external funding; thereupon all public organizations were enabled to receive financing.

Under the European funds and programs included in the financial frameworks for the periods 2007-2013 and 2014-2020 and thereafter, the new program period was voted, to cover a vast sphere of supported areas. In this context, the European Social Fund plays an important role. It aims supporting the employment and improving educational background, as well as the skills of citizens, thus improving their perspectives for employment and prosperity. The European strategy of employment, together with the labor bureaus, work together with the presented employment programs for youths, supporting the business circles in Bulgaria. A major goal of the programs is the provision of possibilities for acquisition of labor practice to unemployed youths of higher education, facilitating the transition from education to employment. After a selection carried out on the base of criteria approved by the Minister of labor and social policy and an interview with employers, the unemployed youths registered in the labor bureaus will be appointed on labor contracts for a 12-month period [8].

To enhance the professional interests of students in the profiled gymnasiums, the European week of vocational skills is organized. The event is celebrated all over the EU. The purpose of these initiatives is motivating the students to discover their talents and develop their skills according

to the market demands and through vocational education and training.

## CONCLUSIONS

As a result of the study performed on the preparation of staff for “Production of textile clothing” sector, some major conclusions may be drawn, namely: Aimed at increasing the innovative potential of the enterprises from the “Production of textile clothing” sector, stimulation of cooperation between innovative companies, the public and private research and development organizations is requested. The establishment of inter-connection between universities and the employers provides direction to students in respect of their career development and enhancing their employment in the enterprises of the “Production of textile clothing” sector. The establishment of policy to stimulate the interest of young people, even at the stage of their gymnasium education, would stimulate their enrollment for the profession at an early stage. Students are the major factor on which the changes in our country depend. Attaining of higher productivity of labor is a significant prerequisite for improving the life standard of people as well.

## REFERENCES

1. N. Karev, Main aspects of professional education in footwear production, publication of reports from the international scientific conference “Contemporary paradigms of management in the context of the continuous change”, Sofia, 2019, p 297-300, ISBN: 978-954-2940-22-7.
2. Register of licensed schools in Bulgaria <https://reg.mon.bg/Schools/search>
3. Register of higher schools in Bulgaria <https://rvu.nacid.bg/>
4. Statistic information from National Statistical Institute for the school years of 2019/2020 and

- 2020/2021.
5. N. Karev, A. Terzieva, Analysis and assessment of technology transfer in the apparel manufacturing sector, *Science, Engineering & Education*, 2, (1), 2017, 77-82.
  6. Employment and unemployment, annual data, the National Statistical Institute, 2019 & 2020, p. 41.
  7. S. Hristova, Career development - a key factor for higher education, XVI international scientific conference "Management and engineering". Sozopol, 2018.
  8. European employment programs <https://www.az.government.bg/>