Improving the Staffing of the Agro-industrial Complex of the Belgorod Region on the Basis of Partnership between Education and Business

A.A. Belov¹; E.V. Belova²; I.V. Gordienko³; E.V. Shvarev⁴

¹²³⁴Department of Professional Education and Socio-pedagogical Disciplines, "Belgorod State Agrarian University named after V.Ya. Gorin", Russia.

¹belov-a-a@yandex.ru
²belova-el-v@yandex.ru
³girina@mail.ru
⁴shvarev_ev@bsaa.edu.ru

Abstract
In this article, the authors investigate an urgent problem for the Belgorod region related to the provision of the agro-industrial complex of the region with highly qualified and innovation-oriented personnel. The results of the sociological research carried out by the authors convincingly indicate the existence of a significant gap between the requirements of modern employers to workers and the quality of knowledge, skills and abilities that university graduates currently possess. The overly theoretical nature of the education received and its isolation from the realities of production activity are noted. To eliminate the gap that has arisen, according to the authors, it is possible only if the mechanisms of social partnership between education and business are actively developed. On the example of the Belgorod State Agrarian University named after V.Ya. Gorin, the authors of the article investigate a successful example of organizing such a partnership.

Key-words: Agro-industrial Complex, Education and Business, Agricultural Science and Innovations.

1. Introduction

In recent years, the agro-industrial complex has become a key and, in many respects, a backbone branch of the economy of the Belgorod region, as evidenced by the achieved results of its functioning.

According to the Department of Agroindustrial Complex and Environmental Reproduction of the Belgorod Region in 2020, the region, possessing slightly more than 1% of the total population of
the Russian Federation and about 1% of the total Russian arable land area, provided 4.6% of the gross agricultural product produced in the country. In the Belgorod region, almost 18% of all pork and 12% of chicken meat are produced in the Russian Federation. In addition, the region accounts for 8.5% of the total volume of sunflower oil produced in the country, 6% of sugar, 2.2% of milk and dairy products, as well as 17% of the all-Russian production of compound feed [17].

At present, the agro-industrial complex of the Belgorod region does not stop building up its investment and production potential, focusing not only on a quantitative increase in production volumes, but also on improving the quality and competitive advantages of products manufactured by agro-industrial enterprises, which is necessarily accompanied by the active development of material and technical and scientific and technological base of agro-industrial production. There is an increasingly active introduction of the latest achievements of agricultural science and innovations, both in production and technological processes, and in production management processes. Accordingly, the requirements for the level and quality of personnel training for agro-industrial enterprises of the Belgorod Region are changing. The need to provide them with innovatively oriented employees who are able to effectively carry out labor activities at workplaces equipped with the most modern equipment and requiring special training, who are ready to make responsible production decisions and take responsibility for their implementation, is being actualized.

The system of higher education is called upon to satisfy the need of the regional agro-industrial complex in qualified, professionally trained specialists. However, as a result of systemic mistakes made in the course of the radical socio-economic reform of Russian society, carried out in the 90s of the last century, the rather close relationship of higher education with production, which was formed in the conditions of a planned economy when fulfilling a state order for the training of highly qualified personnel [22].

The lack of close interaction between higher educational institutions and enterprises in the process of personnel training has led to the emergence of a number of trends, the negative impact of which is still felt.

First, the structure of specialties and areas of training in which qualified specialists are currently being trained has ceased to correspond to the needs of the modern labor market. Universities often do not have time to respond in a timely manner to the dynamic change in these needs and continue to train specialists in little-demanded areas. Moreover, as noted by T.V. Menshikov, “many areas of training of qualified personnel necessary for the region are, in principle, not represented” [19].
Secondly, there was a “devaluation of diplomas”. The increase in the availability of higher education, the growth of its demand among the population, in the absence of reliable information about the prospects for employment in a particular specialty, contributed to the fact that obtaining higher education is no longer a guarantee of quick and successful employment. A unique situation has developed on the regional labor market when, with an excess of highly qualified labor force, there is a deficit in workers of certain specialties, which can hardly be replenished in the near future.

Thirdly, there was a general decline in the quality of training of specialists in various programs of higher education. Today, enterprise managers often refuse to employ university graduates in the chosen field of study, since the latter, in their opinion, do not have the necessary practical experience, and the predominantly theoretical education received at the university does not take into account the realities of modern production [5].

Thus, on the one hand, there is an urgent need to provide the agro-industrial complex of the Belgorod region with personnel, as much as possible adapted to the modern requirements of employers, able to effectively carry out labor activities in any area of work requiring special training, oriented in promising production and management technologies, capable of self-study and innovative activities, and, on the other hand, based mainly on traditional approaches, the system of higher education in the region is not able to fully satisfy this need. To resolve the contradiction that has arisen, in our opinion, will allow the introduction of social partnership mechanisms into the training system for the agro-industrial complex of the region.

This circumstance determined the choice of the purpose of the presented study, which consists in determining the role of social partnership between education and business in improving the staffing of the agro-industrial complex in the region.

2. Materials and Methods

The presented article was prepared on the basis of materials of a sociological study, which was carried out by the authors by the method of a questionnaire survey of students of the Belgorod State Agrarian University named after V.Ya. Gorin based on a quota sample. The faculty and the course of study of students were accepted as quotas. The total sample size was 352 people.
3. Results and Discussions

The formation and further development of the institution of social partnership between science, education and business is currently becoming one of the most effective innovative approaches to train specialists with higher education that meet the modern needs of the labor market. Social partnership in the field of personnel training involves the formation of a system of long-term and mutually beneficial interactions between educational institutions, industrial enterprises and other subjects of the labor market, ensuring the implementation of the common interests of these partners related to improving the quality of training and developing the human resources of a region, industry or individual enterprise [18].

Continuous interaction of higher education institutions with industrial organizations that are potential employers for their graduates, implemented in the system of social partnership, builds contractual relations of an organizational, economic and pedagogical nature. The presence of these various kinds of contractual relations allows us to consolidate the rules and norms for the implementation of interaction jointly developed by partners and to consolidate their efforts aimed at achieving the common goal facing the partners.

Note that the goal of social partnership, which is to provide the agro-industrial complex of the Belgorod region with professionally trained competitive specialists motivated for productive work, is currently quite well understood by all subjects of social partnership, not only employers, but also educational institutions, as well as, which is especially important students studying in them. Students, being the key consumers of educational services provided by universities, quite clearly understand the importance that higher education has today for their achievement in life. It is no coincidence that more than half (54.0%) of the students of Belgorod State Agrarian University who took part in the survey are firmly convinced that getting a good higher education can ensure success in their lives. Almost a third of the survey participants (32.7%) also share this confidence, but their assessments are not so categorical. Only 12.4% of students do not consider higher education as a guarantee of success in life.

However, the results obtained only reflect the importance of higher education in the system of life values of students and, in general, characterize their value expectations. In order to determine the degree of correspondence to these expectations of higher education received by students at BelGAU, they were asked whether this education would contribute to the achievement of success in life. The responses received turned out to be somewhat less optimistic. Despite the fact that most of the students who participated in the study are still more (40.9%) or less (30.4%) confident that the
achievement of life success will be helped by what they received at BelGAU higher education, the share of those who hold the opposite opinion is higher in this case and reaches 20.7%. Among the reasons that determined some students’ dissatisfaction with the education they are currently acquiring were such as the discrepancy between the acquired knowledge and skills due to their excessive theorization (almost two thirds (64.5%) of the students drew attention to this, dissatisfaction with the quality of the received higher education), the lack of targeted preparation for solving urgent life and professional problems (40.8% of survey participants think so), as well as insufficiently high demand in the labor market for specialists in the profile of their education (24.4% of respondents were dissatisfied with this circumstance). In addition, the share of those students who doubt the compliance of the education received at BelGAU with world standards (22.4%), as well as those who are dissatisfied with the level of application of information and digital technologies in the education process (19.1%), is also quite large.

Thus, the data obtained in the course of the study clearly indicate not only that students are quite clearly aware of the problems common to the higher education system caused by its insufficient focus on the actual needs of the labor market [2], but also accordingly adjust their requirements for quality and the content of the received higher education.

Note that the quality of higher education received at BelGAU, in the opinion of the students themselves, is increasingly approaching these requirements. It is no coincidence that when conducting a comparative analysis of the results of the study conducted by the authors in 2019 with the results of a similar study conducted in 2015, positive dynamic changes are clearly traced in the assessments given by students to the quality of education received at the university and its relevance in the labor market. So, for example, in 2015, 84.9% of the surveyed students of the Belgorod State Agrarian University paid attention to the discrepancy between the obtained, mainly theoretical, knowledge with the requirements of practical professional activity. The lack of skills necessary to solve real life and professional problems in 2015 worried about half (48.1%) of the survey participants. The low level of demand for acquired education in a specific specialty on the labor market was indicated by 40.3% of respondents from among students of BelGAU. Also in 2015, more than a third (34.7%) of disappointed students named the low quality of education received at BelGAU as the reason for dissatisfaction with the choice of the university. In 2019, there were no more than 10% of these [3].

The fact that student public opinion clearly records positive dynamics in improving the quality and strengthening the practical orientation of education received at Belgorod State Agrarian University is not accidental. Belgorod State Agrarian University named after V.Ya. Gorin, focusing
on improving the quality of training of his graduates, increasing their competitiveness in the regional labor market, systematically makes significant efforts to introduce social partnership mechanisms into the educational process and their further development, and the experience gained is of considerable interest.

Traditionally, social partnership between higher educational institutions and industrial enterprises is implemented in the form of organizing students' practical training at these enterprises, their internships, as well as internships for industrial training masters and teachers of professional disciplines. In addition, the organization of this form of social partnership involves:

- Conclusion of agreements on cooperation between the university and enterprises in each area of training or specialty.
- Attracting representatives of enterprises-employers to participate in the development of educational programs, calendar plans, schedules.
- Attracting representatives of enterprises-employers to participate in the final state certification of students.
- Organization of round tables on the implementation of social partnership, the organization of industrial practice and employment of university graduates [14].

Such a traditional form of social partnership is being implemented in the Belgorod State Agrarian University. However, social partnership appears to be more promising and meeting the challenges of the modern labor market within the framework of the implementation of dual training programs, which involve parallel training of a student, both on the basis of an educational institution and on the basis of a production enterprise.

Dual training programs are developed by educational institutions in conjunction with partner enterprises and provide for the formation of students' general and professional competencies in the relevant field of study or specialty based on federal state educational standards. In the course of practical training at the enterprise, the trainees acquire the practical experience they need for further employment at this enterprise.

Belgorod State Agrarian University named after V.Ya. Gorin began to carry out a project to introduce a dual education system into the educational process in 2013. The implementation of this project is aimed at reducing the existing gap between the theoretical knowledge received by students today at the university and the real requirements of the labor market for modern specialists, regardless of the direction of their professional training. The use of the dual training system allows you to link the theoretical knowledge obtained at the university with the practical skills of its application in the
conditions of real professional activity in production, which will ensure the effective formation of the required competencies in future specialists at the required level [1].

The introduction of the dual training system at the Belgorod State Agrarian University was associated with:

- With the development of basic professional educational programs in the areas of training "applied" bachelor's and "applied" master's degrees and their further adjustment towards increasing their practical component.
- With the implementation of new types of practical classes - introductory, technological practices.
- With the expansion of the use of information and digital technologies in the educational process, including conducting classes in on-line mode, video reports, as well as in the form of monitoring in the "live time" mode of the implementation of technological processes in a specific production.
- With the expansion of students' participation in practical activities in the chosen profession in the form of master classes, internships at enterprises, participation in various competitions, including contests of professional skill, in the form of labor activity by qualified workers in an additional working profession received at the university.

The logical result of these efforts was the formation of the "University of Applied Sciences" on the basis of the Belgorod State Agrarian University.

The implementation of dual education requires that the educational organization for the employment of graduates constantly expands communication links and organizes cooperation with anchor employers. Thanks to well-coordinated work, the formation of the image of the educational organization is gradually being built, as well as the search for suitable vacancies for graduates is taking place. Also, with the students, the analysis of the typical mistakes that they make at the stage of searching for a suitable job for them is carried out [12].

To bring training closer to production, Belgorod State Agrarian University entered into agreements with eighty-seven basic partner farms, Confirming the role of scientific and innovative activities of Belgorod State Agrarian University, it is necessary to note the practical results obtained are reflected in the concluded contractual obligations of cooperation of the university with enterprises anchor partners: SEC "Kolkhoz named after Gorin", LLC "GK Agro-Belogorye", LLC "GC "Prioskolye", CJSC" Krasnoyaruazhskaya grain company ", Agroholding" BEZRK-Belgrankorm", GC
The greatest importance is attached not only to partners who closely interact with the university, but also to the organization of practical training, which is conducted on the basis of the university. For practical activities, the educational institution has created special educational laboratories, training grounds, where students can get working professions at a vocational training complex. In particular, the enterprises of the agro-industrial complex of the Belgorod region, which are potential employers for graduates of BelGAU, at their production facilities in accordance with the concluded agreements with the university within the framework of social partnership, ensured the creation of thirty-three classrooms equipped with a video conferencing system, as well as four laboratories for research and production purposes. In addition, thirteen business incubators have been formed, where model production is located, which allows students to deepen their knowledge and acquire practical skills in their professional field.

Thus, in the research and production divisions of the Belgorod State Agar University named after V.Ya. Gorin summarized the best domestic and foreign experience of the agro-industrial complex, which, in turn, creates tremendous opportunities for scientific and practical activities of teaching staff and training specialists in the agricultural sector.

4. Summary

The need to improve the staffing of the agro-industrial complex of the Belgorod region is actualized by the high rates of socio-economic transformations taking place in modern Russian society in recent years and often taking on a crisis character. Adapting to them, agro-industrial enterprises are forced to change the tactics and strategy of their functioning, turning to, perhaps, the key resource for increasing their efficiency - their personnel, which in this situation is already considered as a team of professionals focused on high-quality and responsible implementation of their professional and labor activities in the assigned area of work. Accordingly, the most significant factor determining the effectiveness of professional and labor personnel of modern agro-industrial enterprises is the level and quality of their professional training.

As the results of the conducted research have shown, the modern education system is not able to satisfy this need in full. This is hindered by the inconsistency with the requirements of the modern labor market, the structure of specialties and areas of higher education training, as well as the objectively conditioned processes of "inflation" of diplomas and a general decline in the quality of
education and an increase in its isolation from the needs of production. One of the defining conditions that make it possible to change the current situation is the introduction of mechanisms of social partnership between education and business into the system of personnel training for the agro-industrial complex of the region. The most promising basis for creating such a partnership is the implementation of a dual education system.

The implementation of dual education at the Belgorod State Agrarian University made it possible to significantly improve the quality of training specialists for the regional agro-industrial complex, synchronizing educational activities with the constantly changing requirements of the developing agro-industrial production.

References

Bannikova O.A., Gordienko I.V. Organization of a mentoring system in a dualistic approach // Gorin Readings. *Science of the Young - to the Innovative Development of the Agroindustrial Complex: Proceedings of the International Student Scientific Conference*, Maisky: Publishing House FGBOU VO Belgorod State Agrarian University, 2019. - p. 263.

Belov A. A. Higher education as a factor in the life success of modern youth // *Organic agriculture: problems and prospects: Proceedings of the FLAC of the international scientific and production conference, Maisky*, May 28-29, 2018. – Maisky: Publishing House FGBOU VO Belgorod GAU, 2018. – pp. 156-158.

Belov A. A., Belova E. V. The educational process at the university through the eyes of students // *Kazan social and humanitarian bulletin*. – 2019. – № 3(38). – pp. 24-28.

Belov A. A. Organization of the educational process in a modern university through the eyes of students (based on the results of sociological research) // *Social structures and processes: Materials of the All-Russian scientific-practical (correspondence) conference* – Belgorod: Publishing house BGTU im. V.G. Shukhova, 2007. – pp. 10-14.

Belov A. A., Belova E. V Promotion of employment of Belgorod youth as a factor in improving the quality of their life // *Problems and prospects of innovative development of agricultural technology: Materials of the XX International Scientific and Production Conference, Belgorod, 23–25 May 2016* - Belgorod: Belgorod State Agrarian University named after V.Ya. Gor-na, 2016. – pp. 162-163.

Belova E.V. Modular training as a health-saving technology // *Formation of a healthy lifestyle for children and adolescents: traditions and innovations: Materials of the International Scientific and Practical Conference: in 2 parts*, Belgorod, April 01–02, 2015. - Belgorod: OOO Gik, 2015. - pp. 432-436.

Belova E.V., Belov A.A. Assessment of the current state of speech culture of first-year students // *Kazan social and humanitarian bulletin*. – 2018. – № 2(31). – pp. 14-17.

Belova E.V., Belov A.A. The state of speech culture of first-year students of Belgorod universities // *Actual innovative research: science and practice*. – 2008. – № 1. – pp. 14.

Belova E.V. Modular training technology in the health care system of higher professional education // *Innovative solutions in agricultural science - a look into the future: Materials of the KhKIII
Belova E.V., Belov A.A. Formation of the speech culture of students as an element of educational work at the university // Culture: Experience and Problems of Teaching Socio-Economic and Humanitarian Sciences: Collection of Scientific Papers. – Belgorod: Belgorod State Institute of Arts and Culture, 2010. – pp. 74-78.

Belova E.V., Belov A.A. Formation of student speech culture in the process of development of the organizational culture of the university // Risks in a changing social reality: the problem of forecasting and management: Proceedings of the international scientific and practical conference, Belgorod, November 19–20, 2015. – Belgorod: OOO "PT"2015. – pp. 309-312.

Gordienko I.V. Pedagogical conditions for preparing graduates for future social and professional activities // Innovations in the agro-industrial complex: problems and prospects. – 2015. – №3 (7). pp. 40-43.

Gordienko I.V. Pedagogical conditions for the preparation of graduates of professional educational organizations for future professional activities // Biotechnological solutions to problems of agrarian science: Materials of the national international scientific and industrial conference, Maisky, May 24, 2017. Mayskiy. Publishing House FGBOU VO Belgorodskiy GAU, 2017. 102-104.

Gordiienko I.V. Socio-pedagogical conditions for the formation of a value relationship students of the Belgorod State Agrarian University to agricultural labor. Monograph – Belgorod: OOO GiK, 2017. – 184 p.

Gordienko I.V. Management of professional education on the formation of a value attitude to work among students of an agricultural university // Science for agricultural production: relevance and modernity: Proceedings of the national international scientific and industrial conference. Mayskiy: Publishing House FGBOU VO Belgorodskiy GAU, 2018. pp. 127-130.

Gordienko I.V. The use of technology design and research activities in the educational practice of professional educational organizations // Education as a Strategic National Priority: International Scientific and Educational Forum, Yekaterinburg, 2021. - pp. 57-59.

Information about the area. Main socio-economic characteristics // Department of Agroindustrial Complex and Environmental Reproduction of the Belgorod Region. URL: belapk.ru/press-centr/informaciya-ob-oblasti/ (date of the application 14.04.2021).

Leifa A.V., Sergienko Yu.P. Training of pedagogical personnel at the university on the basis of social partnership // Higher education in Russia. - № 1. – 2016. – pp. 114 – 120.

Men'shikova T.V. Mechanism for regulating vocational education, focused on the needs of the region (on the example of the Arkhangelsk region): 05.00.08 Management Economics: dis. ... Cand. economical. sciences. Arkhangelsk, 2006. – 131 p.

Melnik Yu.M., Shvarev E.V., Gordienko I.V. Organizational and managerial aspects of the development of methodological work in a professional educational organization // Bulletin of the Belgorod Institute for the Development of Education, Belgorod, 2017. – pp. 25-30.

Mishustina A.R., Gordienko I.V. Formation of the economic culture of students is the key to the development of the state // Gorin Readings. Innovative solutions for the agro-industrial complex: Proceedings of the International Student Scientific Conference. In volumes, Maisky: Publishing house FGBOU VO Belgorod GAU, 2020. - pp. 380.
Nelyubina M.A. Interaction of state and market management mechanisms for the development of the vocational education system in Russia: 05.00.08 Management Economics: dis. ... Cand. economy sciences. – M., 2007. – 148 p.

Turavets N.R., Shvarev E.V., Morozov S.A., Reshetnikov P.E. Interuniversity integration: social and educational meaning and areas of joint activities // Cultural life of the South of Russia. – 2010. – № 1 (35). – pp. 30-32.

Shvarev E.V. Assessment of the satisfaction of graduates and representatives of the employers' community with the quality of educational services provided: information and analytical report on the results of intra-university monitoring of consumer satisfaction with the quality of education. Belgorod, 2020.

Shvarev E.V., Reshetnikov P.E. Development of the university in the mode of innovation // Higher education today. – 2009. – № 1. – pp. 14-17.

Shvarev E.V. Management of the process of formation of the educational complex of culture in the region: monograph. - Belgorod: Politerra, 2004. - 213 p.