

New Challenges and New Approaches to the Development of the Vocational Education system in the Central Black Earth Economic Region

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Abstract

The article deals with issues related to the development of vocational education in the Central Black Earth Economic Region as a key component of the formation and development of human potential. The article examines the current state of vocational education in five regions and identifies the main internal constraints and external challenges facing the vocational education system. The authors define the conditions for the further development of the higher education system, promising areas of activity of universities and propose an algorithm for the formation of the concept and design of a competitive educational program.

Keywords: Human capital; Professional education; Educational development; Educational program concept; Educational program development

Introduction

Serious transformations are taking place in the Russian Federation today in many spheres of society and the state. Successful socio-economic development of the country is impossible without purposeful formation and development of human capital. Human capital is considered the most significant factor that can have a significant impact on the life and development of the country.

Human capital is a complex multi-level phenomenon that characterizes, among other things, the labor resources necessary for the socio-economic development of the territory. Particular importance in the study of human capital is attached to the study of the system of vocational education as a key component of the formation and development of human potential.

The goals and priorities of modern vocational education are defined at the state level, correlate with the main directions of socio-economic development of our country and involve the formation of competitive human potential, taking into account the needs of the real labor market of the region. In this regard, it is of particular importance to build an optimal regional system of vocational education and its effective functioning. Special importance is given to properly designed educational programs and the conditions for their implementation.

Traditionally, the regional system of vocational education in the Russian Federation consists of a network of secondary vocational education organizations and a network of higher education organizations.

Taking into account the peculiarities of the management of these subsystems, secondary vocational education turned out to be in

a more advantageous position. Regional public authorities, managing the system of secondary vocational education, predict the required number of specialists in demand on the regional labor market, annually prepare a state order for the training of such specialists, adjust the number of organizations of secondary vocational education and areas of training in popular specialties and professions.

The problematic issue, in our opinion, is the development of the regional higher education system. Important tasks for the development of the necessary competencies of a future professional and the education of professionally important qualities that are assigned to the high school today require new approaches to the development of educational programs that are adequate to the demands of the labor market (and not only regional labor market).

The relevance of the study of the development of the regional higher education system is determined by the presence in this area of contradictions between the tasks that it must solve and the challenges and limitations that a modern high school faces.

A brief literature review

The conceptual documents reflecting the priority directions of professional education development emphasize the need to develop such educational programs that will contribute to the formation of a competitive graduate.

However, no comprehensive studies of this issue have been conducted in recent years. Certain areas related to the development of the higher education system in Russia are actively studied by representatives of various sciences, including pedagogical scientists, political scientists, economists, sociologists.

Thus, the conditions and factors of the development of the educational environment and educational space, issues of university management are presented in the works of T.V. Opletaeva (2002), T.A. Pastukh (2019), S.B. Smirnova (2021), S.K. Baranova (2020) etc [14, 16, 17, 6].

Indicators for assessing the quality of education were studied by Yu.A. Zolotareva and E.S. Mishchenko (2009), V.A. Balaban and E.B. Gafforova (2003) etc [18, 4].

The importance of the education system for the socio-economic development of our country and foreign countries was considered by G.A. Balykhin (2002), E.V. Lapteva (2019), M. L. Agranovich (2019) etc [5, 11, 1].

The development of higher education in non-state universities under the influence of state policy, sources of financing of higher education were studied by N.V. Astashkina (2000), N.V. Burlova (2003), T.G. Kadnikova and K.V. Danilova (2017), V.M. Nikandrova (2002) etc [3, 7, 9, 13].

The issues of resource potential and electronic information system were studied by Chernysh, A.Ya., Goloshumova, G.S. and Peschanikova, E.H. (2016) etc [8].

The instruments of state support of the university were studied in the works of G.A. Lukichev (2008), V.M. Filippov (2008) etc [12].

The economic aspects of the activities of universities are considered in the works of T.L. Klyachko (2006), SM. Astakhova and A.L. Lomakin (2008) etc [10, 2].

Despite the fact that the works of Russian scientists show the importance of vocational education for the socio-economic advancement of the country contain specific proposals for its development, further research of new challenges and new approaches to the development of the vocational education system is required.

Basic framework and data

Vocational education as a key element of human resource management and the formation of labor resources is the most important component of the socio-economic system of any region.

In the Belgorod, Voronezh, Kursk, Lipetsk and Tambov regions, the vocational education system is represented by organizations of secondary vocational education and higher education, which have different departmental subordination.

Educational organizations of secondary vocational education are directly managed by the state authorities of the subjects of the Russian Federation, which makes it possible to adjust the number of such organizations in the region, and the areas of training and specialties being implemented, and the number of students enrolled in programs.

The state order for certain specialists is developed by regional authorities and financed from the budget. Measures for the development of the material and technical base, staffing, and the introduction of new approaches in subordinate institutions are reflected in state projects and programs of the regions.

Thus, the Belgorod region is implementing the state program "Development of Education in the Belgorod region", approved by the decree of the Government of the Belgorod region dated 12/30/2013 No. 528-pp, the Kursk region is implementing the state program "Development of Education in the Kursk region", approved by the decree of the administration of the Kursk region dated 10/15/2013. No. 731-pa (subprogram 3 "Development of vocational education", the Lipetsk region implements the state program "Development of education in the Lipetsk region", approved by the decree of the administration of the Lipetsk region dated 29.11.2013 No. 534 (Subprogram 2 "Improving the effectiveness of vocational education in providing sectors of the economy with in-demand personnel"), the Tambov region implements the state program "Development of education in the Tambov region", approved by the resolution of the administration of the Tambov region dated 28.12.2012. No. 1677 (Subprogram 3 "Development of vocational and higher education"), the Voronezh Region is implementing the state program "Development of Education in the Voronezh Region", approved by the Decree of the Government of the Voronezh Region dated 17.12.2013 No. 1102 (Subprogram 5 "Development of vocational education").

The study of these state programs has shown that measures that make it possible to really modernize the material and technical base or aimed at improving the qualifications of teaching staff are planned for secondary vocational education. And although a number of subprograms contain the phrase "higher education" in the wording, the text of the subprograms indicates only the targets to be achieved by educational organizations, including higher education organizations. For example, indicators such as:

- The number of students of professional educational organizations and educational institutions of higher education who have been trained in online courses;
- The number of people who annually undergo training in continuing education programs in educational institutions of higher education, secondary vocational education, additional vocational education.

The studied regional programs are aimed at achieving such goals:

- Bringing the entire system of vocational education in line with the current needs of the labor market, focused on the innovative development of the region's economy; - integration of education and the real sector of the economy.

For the development of secondary vocational education in the studied regions, measures are being implemented aimed at:

- Reduction of buildings in disrepair or requiring major repairs;
- Equipping of educational premises with new equipment that meets modern requirements;
- increase of teachers' salaries;
- Increase in the share of employers participating in the educational process;
- Establishment of multifunctional centers of applied qualifications, providing training on the basis of secondary general education;
- Employment of graduates in the received specialty / profession.

The study showed that secondary vocational education in the regions under consideration is a well-managed, budget-funded system that takes into account the needs of the region for midlevel specialists.

The current system of higher education in Russia is quite young. Significant results of the reform in 2000 of higher education were:

- Transition to credits;
- Implementation of the competence approach;
- A variety of educational programs within one area of training;
- Introduction of such stages as bachelor's and master's degrees, along with specialty.

All these measures were supposed to bring the domestic higher education system closer to world standards and fit into the European space.

The current system of higher education in Russia is characterized by the presence of educational organizations of various forms of ownership. Modern Russian universities are differentiated by status, scientific potential, material and technical base, number and variety of educational programs.

The management of this system is carried out at three levels – federal, regional and at the level of a specific university. All components of this management model are an independent subsystem that perform specific functions.

If we consider the general organizational foundations, then at the federal level, concepts for the development of higher education in the country are being thought out, uniform requirements for the qualitative characteristics of higher education are being determined

A system of high schools operates in the regions, taking into account the needs of the region for certain personnel.

At the high school level, specific work is being carried out on the implementation of state policy and state initiatives.

It is the high school that is the primary link that independently determines the list of educational programs, their orientation, develops educational programs taking into account the requirements of the Federal State Educational Standard and the requirements of employers, trains specialists in these educational programs. In this regard, it is important to understand what challenges the high school faces in modern conditions.

Let's focus on some of the most significant characteristics of higher education in the five areas under consideration, including the number of high schools, the number of students, and the distribution of students by branches of science.

The higher education system of the five regions is represented by state and non-state high schools, as well as branches (Table 1).

Table 1 clearly demonstrates that most high schools are state-owned. The share of state budgetary educational institutions of higher education is: in the Belgorod region – 81%, in the Voronezh region - 73%, in the Kursk and Lipetsk regions - 54%, in the Tambov region - 85%.

<i>Specifications</i>	<i>Belgorod region</i>	<i>Voronezh region</i>	<i>Kursk region</i>	<i>Lipetsk region</i>	<i>Tambov region</i>
Number of higher education organizations	11	23	11	11	7
Including branches	6	8	3	7	3
Number of state and municipal high schools	9	17	6	6	6
Number of private high schools	2	6	5	5	1

Table 1: The number of higher education institutions in the Belgorod, Voronezh, Kursk, Lipetsk and Tambov regions in 2019.

The modern structure of the industry was formed as a result of significant optimization of the entire network of educational institutions of higher education. The number of universities in the period from 2015 to 2019 decreased in the Belgorod and Kursk regions by 21%, in the Voronezh region by 23%, in the Lipetsk region by 31%, in the Tambov region by 46%. Under the “optimization” were mainly branches of universities. The number of branches of universities in the period from 2015 to 2019 decreased by more than 30%. So, in the Belgorod region there was a decrease of 33%, in the Kursk region by 40%, in the Voronezh region by 42%, in the Lipetsk region by 36%, in the Tambov region by 62%.

Students study mainly at state universities, about 50% of the total number of students study full-time (Table 2).

<i>Indicators</i>	<i>Belgorod region</i>	<i>Voronezh region</i>	<i>Kursk region</i>	<i>Lipetsk region</i>	<i>Tambov region</i>
Number of students enrolled in Bachelor’s, Specialist’s and Master’s degree programs	48674	86772	38159	21185	27943
Percentage of the contingent in the Russian Federation	1,17	2,08	0,91	0,51	0,67
Number of full-time students	23131	48382	19419	10096	14034
The number of students studying at the expense of budgetary funds	18142	39945	13469	11299	12707
Percentage of students studying at the expense of budgetary funds	37,27	46,03	35,29	53,33	45,47
Percentage of students enrolled in state and municipal high schools	90,9	93,6	89,3	91,5	96,9
Percentage of students enrolled in non-state high schools	9,1	6,4	10,7	8,5	3,1

Table 2: The number of students studying in higher education institutions in the Belgorod, Voronezh, Kursk, Lipetsk and Tambov regions in 2019.

Figure 1 shows the dynamics of the number of students studying at universities in the Belgorod, Voronezh, Lipetsk, Tambov and Kursk regions from 2005/2006 to 2018/2019 academic years.

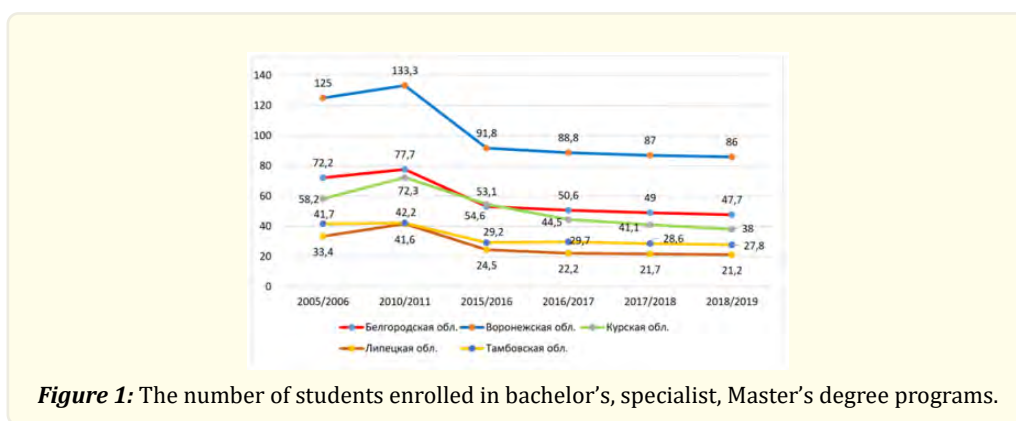


Figure 1: The number of students enrolled in bachelor's, specialist, Master's degree programs.

It should be noted that since 2015 the number of students has been constantly decreasing.

This decrease is primarily due to an increase in the cost of full-time education and an annual reduction in the number of allocated budget places. The number of budget places in 2019 compared to 2018 decreased in the Belgorod region by 0.29%, in the Kursk region by 2.4%, in the Voronezh region by 0.31%, in the Lipetsk region by 0.32%, in the Tambov region by 0.9%.

The standard cost of full-time education in 2019 was determined on the basis of “The final values and the value of the components of the basic standard costs for public services for the implementation of educational programs of higher education, industry correction coefficients and the procedure for their application for 2019”, approved by the Deputy Minister of Science and Higher Education of the Russian Federation dated 20.11.2018 No. MN-PR-8/SK. According to this document, the cost of full-time educational services cannot be less than 83,000 rubles for bachelor’s and specialty programs, less than 88,500 rubles for master’s programs (Table 3).

<i>Education level</i>	<i>Total values of basic standard costs, thousands of rubles</i>				
	<i>group 1</i>	<i>group 2</i>	<i>group 3 a</i>	<i>group 3 b</i>	<i>group 3 c</i>
Bachelor’s, Specialist’s degree programs	83,00	98,30	126,33	165,75	260,86
Master’s degree programs	88,55	104,05	134,21	179,50	-

Table 3: The final values of the basic regulatory costs for public services for the implementation of educational programs of higher education (bachelor’s degree, specialty, master’s degree).

Based on the requirements of federal state educational standards, all universities, despite the form of ownership, are required to set the cost of education not lower than the standard. For the average family of the regions under consideration, more than 10% of the budget will have to be spent on the education of one child every month.

To understand the specifics of the current system of higher education, the distribution of students in the areas of education received, taking into account the branches of sciences is of interest (Table 4).

In the Belgorod, Lipetsk and Voronezh regions, the largest share is occupied by such industries as technology and technical sciences and engineering, which is due to the need to provide the industrial production of the region with qualified personnel.

In the Kursk and Tambov regions, the greatest share is occupied by the sciences of society.

<i>Branches of science</i>	<i>Belgorod region</i>	<i>Voronezh region</i>	<i>Kursk region</i>	<i>Lipetsk region</i>	<i>Tambov region</i>
Humanities	3,90	4,22	3,11	5,02	3,79
Education and pedagogical sciences	9,00	7,48	9,56	26,52	8,56
Art and culture	3,76	0,93	0,88	1,20	2,91
Mathematical and natural sciences	2,93	9,53	2,89	4,35	5,42
Social sciences	29,51	25,65	29,41	29,95	26,58
Agriculture and agricultural sciences	8,16	6,78	6,84	1,95	7,99
Engineering, technology and technical sciences	33,70	33,80	18,44	31,00	24,74
Healthcare and Medical sciences	9,04	11,55	28,88	-	20,00
Defense and security of the state, military sciences	-	0,06	-	-	-

Table 4: Distribution of students in bachelor’s, specialist’s and master’s degree programs in the branches of sciences in the Belgorod, Voronezh, Kursk, Lipetsk and Tambov regions (in %).

The general characteristics of some components of higher education in the five regions show that a stable system has now developed, including state and non-state universities. Quantitative indicators of the contingent of students and the chosen areas of training in the branches of sciences show the demand for educational services by the population.

Since the university is a supplier of qualified personnel and is designed to meet the needs of the regional labor market, the first challenge is related to the development of high-quality educational programs focused on the needs of the regional labor market and taking into account promising regional development directions.

The problem is that the graduate model does not meet the demands of the real labor market.

If we conduct a small experiment and ask the developer of the university's educational program and the employer's representative to write down the requirements for the graduate, then we will get two different competence models. The developer of the educational program of the university focuses on the Federal State Educational Standard and the competencies that are embedded in it. The representative of the employer will indicate the competencies that will be needed in real life, and at the same time he relies on his experience and the requirements of professional standards.

It can be stated that at the present stage, the search for the optimal competence model of the graduate continues, which will take into account the requirements of the employer.

Recall that the graduate's competence model was laid down in the federal state educational standard of higher education. And this approach continues to evolve. If earlier versions of the federal state educational standard of higher education offered a fairly complete list of necessary general cultural, general professional and professional competencies and the university was offered the opportunity to additionally establish professional competencies at its discretion, then the federal state educational standards of higher education. The new generation (FSES HE 3++), massively adopted in 2020, offer even greater freedom to the developer of the educational program.

The organization itself can choose the areas of professional activity and determine the types of professional tasks of the graduate, which allows you to determine the profile of the educational program.

As for professional competencies, they can be mandatory and recommended. FSE SE 3++ either do not contain mandatory professional competencies at all and refer to an Approximate basic educational program, or contain one or two competencies. The university must formulate the remaining professional competencies independently and in accordance with the profile of the educational program.

However, the developer of FSE SE 3++ missed the fact that such activity is new for many universities. The question remains how to formulate these competencies?.

On the one hand, a step has been taken towards taking into account the requirements of the regional labor market, when the developer of an educational program based on a foresight session or foresight analysis will be able to lay the necessary and demanded model of a graduate in the region.

On the other hand, the quality of such an educational program largely depends on the professional skills of university teachers and comprehensive methodological guidance from the developer of standards.

It's no secret that initially, when universities faced the need to switch to competency-based training, the disciplines of the existing curriculum were tightened to certain competencies. The very concept of competence was revealed through the terms "ability" or "possession", which caused misunderstanding among practicing teachers. Since no normative definition of competence was proposed, it was "decomposed" into the knowledge and skills.

In other words, higher education institutions “reshaped” the disciplinary model of education in force at that time to meet the requirements of regulatory documents, in particular, the federal state educational standard of higher education.

The indicated difficulties were connected, first of all, with the need to change the professional thinking of university teachers involved in the development and implementation of educational programs, and to provide methodological support for the transition to a competency based learning model. In order to prepare teachers for the development of an educational program, it is necessary either to conduct training webinars or to develop comprehensive methodological recommendations.

It should be noted that the development of an educational program in connection with the introduction of the FSE SE 3++, currently represents a serious challenge for the university- competencies have changed, the approach has changed in general, greater freedom has been given to the university in terms of defining competencies. And most importantly, the teacher who participates in the implementation of the program does not always understand the essence of the changes introduced by the new FSE SE 3++.

A serious challenge is faced by the developer of the program, who first of all has to think through its concept. In this regard, it seems necessary to develop an algorithm for the formation of the concept and development of an educational program.

The concept of the educational program is result-oriented, which means that it presupposes the prediction of a graduate’s competence model that takes into account, first of all, the requirements of the employer.

At the stage of creating a graduate’s competence model, it is necessary to refer to professional standards, which define generalized labor functions, labor functions, disclose in detail the content of labor actions, the necessary knowledge, skills, and, if necessary, personal qualities. The organization selects those generalized labor functions that it deems necessary and can choose labor actions from them.

For the developer of the educational program, it remains important to understand that it is necessary to strive to cover all labor functions and labor actions within the framework of the selected generalized labor function.

If the developer ignores any labor actions and does not take into account their formation in the educational program, this may limit the graduate’s employment opportunities and further professional advancement. The graduate will have to “get” the necessary labor functions by obtaining additional professional education.

All educational programs with a description are placed in open access on the website of an educational organization and a sensible applicant will choose the educational program that contains all the necessary components.

Of course, the developer should focus on professional standards that reflect the state personnel policy and are federal documents.

What should I do if there are no professional standards in this area? It is necessary to conduct a foresight analysis of regulatory legal acts, qualification requirements, job descriptions and isolate all the necessary components for inclusion in the graduate’s competence model. In order to take into account regional specifics and the need for certain personnel, a foresight session should be organized at which, together with representatives of the regional professional community, the necessary professional actions are determined in accordance with the type of professional activity. The results of the activities carried out are recorded in the protocols.

Another important nuance in determining the concept of an educational program is the study of federal and regional strategic documents in order to determine the main directions of socio-economic development of the country and the region, and the planned results, which will allow you to understand which specialists will be needed for this. Such forecasting will make it possible to supplement the graduate’s competence model with professional actions and personal qualities that he will have to possess by the end of his studies in order to be in demand on the labor market.

The main state targets are reflected in the Decree of the President of the Russian Federation dated 07.05.2018 No. 204 “On national

goals and strategic objectives of the development of the Russian Federation for the period up to 2024”, which states the national development goals of the Russian Federation, contains instructions to develop the main activities of the Government of the Russian Federation for the period up to 2024 and the forecast of socio-economic development of the Russian Federation for the period up to 2024, as well as to develop national projects: education; housing and urban environment; small and medium-sized entrepreneurship and support for individual entrepreneurial initiative; demography; healthcare; science; culture; ecology; safe and high-quality highways; digital economy; labor productivity and employment support; international cooperation and exports. It should be noted that national projects have been developed and are being intensively implemented.

Each region has developed a socio-economic development Strategy for the period up to 2024 or a Forecast of socio-economic development for the period up to 2024. To take into account the forecast requirements at the regional level, these documents are analyzed.

The study of the content of federal and regional strategic planning documents will allow you to determine:

1) Which specialists will be in demand in specific types of professional activity; 2) what requirements (age, professional, personal, ethical) should these personnel meet.

Thus, the concept of an educational program may include the following sequential stages:

1. Building a graduate’s competence model based on the elaboration of federal and regional strategic documents, professional standards, qualification requirements, and the results of foresight sessions.
2. Definition of the field and types of professional activity, types of professional tasks, which will allow you to isolate the profile, orientation of the educational program.
3. Formulation of the list of professional competencies, fixation of the necessary knowledge, skills, personal qualities.
4. Determination of the list and content of compulsory and variable disciplines, including the list of elective disciplines.
5. Drawing up a structural and logical scheme for the development of an educational program with an indication of the sequence of studying disciplines by years and semesters, their relationship is reflected.

The subsequent work on the preparation of the educational program follows the already well-known scheme: the development of a curriculum, the development of a calendar schedule of the educational process, the preparation of a scheme for the formation of competencies and passports of competencies, the development of work programs of disciplines and practices, the program and the fund of evaluation funds for the state final certification.

Unfortunately, when switching to FSE SE 3++, many difficulties and problems were not solved. FSE SE 3++ contains new concepts and does not contain a decoding of these concepts. Thus, the concept of “indicators of achievement of competencies” is introduced, which the educational organization determines independently. However, there is no explanation of what is meant and how these indicators should be formulated.

The approaches established at the federal level are not reflected in comprehensive methodological recommendations. As an example, we can give an understanding of the “profile” of a teacher’s education in a taught discipline. There is no such definition in the regulatory framework. According to different approaches, this can be a basic education, an academic degree in the profile, professional retraining, obtaining a second higher education in the profile. But the approach to determining correctness itself does not have clear positions, which does not allow an educational organization to choose the right staffing for educational programs.

The study of the text of FSE SE 3++ in various areas of bachelor’s degree preparation, which were massively released in August 2020, showed that a new list of universal competencies is being introduced, one of which is universal competence UC - 9 - able to use basic defectological knowledge in social and professional spheres and it belongs to the category of “Inclusive competence”. The inclusion of this competence in the list of universal competencies is puzzling. As for the use of basic defectological knowledge, perhaps it was still

necessary not to elevate them to the rank of competencies that are mandatory for formation, but to recommend elective courses that allow you to obtain such knowledge.

The development of the regulatory framework in the field of higher education continues. To date, the Russian Federation has regulatory legal acts developed by various departments that need to be systematized and adjusted. A number of documents contain incorrect formulations, contradictory provisions, discrepancies in terminology. Further work is required to improve and adjust the regulatory framework.

The next challenge, in our opinion, is an insufficiently built management system. The fact is that educational organizations of higher education, geographically located in a subject of the Russian Federation, are subordinate to federal authorities, in particular, the Ministry of Education and Science of Russia and are directly managed by it. Regional state authorities manage only subordinate educational organizations (preschool, general education organizations, organizations of secondary vocational education), to which universities do not belong.

However, regional public authorities participate in the implementation of state policy in the field of education, in the implementation of national projects, and provide federal authorities with information on the implementation of planned activities and the achievement of indicators.

The emphasis in the state policy in the field of higher education is placed on meeting the needs of the region for highly qualified personnel. Therefore, the connection of universities with the state authorities of the region should be very close. The development of the higher education system is directly related to the socio-economic development of the region. Universities located on the territory of a constituent entity of the Russian Federation should build their development program taking into account the plans for the strategic development of the region, train personnel in popular areas of training and specialties. The creation of supporting universities, which were conceived as regional research centers capable of training modern qualified personnel for the leading industries of the region, is aimed at achieving these objectives.

The interaction of state bodies of regional power with universities located in the territories of the studied subjects of the Russian Federation is:

- In attracting students to participate in conferences, competitions, cultural, sports, patriotic events;
- Collecting information on individual indicators of the implementation of federal programs, projects and initiatives in the field of education in the territories of five regions.

Unfortunately, the interaction of regional authorities with universities is not planned and systematic. It would be more expedient to build work on the basis of an annual plan, which specifies the types of events, the timing of their implementation, and participants. The presence of such a plan not only in the authorities, but also in the university, would allow to systematize the interaction of regional authorities with universities, to build purposeful work on the implementation of national projects and state programs.

Results

As a result of the research, an algorithm for the formation of the concept and design of the educational program was determined, including:

- Determination of the graduate's forecast model based on the analysis of strategic federal and regional documents, as well as using the results of a foresight session with representatives of employers;
- Drawing up a list of labor functions and labor actions that a graduate needs to master within the framework of this educational program;
- Definition of the field of professional activity and the orientation of the educational program;

- Formulation of professional competencies, determination of the necessary knowledge, skills and abilities for their development;
- Drawing up a list of disciplines and determining the sequence of mastering by semesters, as well as their relationship.

The proposed sequence of formation of the educational program is aimed at maximum consideration of the requirements of the employer. Taking into account strategic planning documents containing forecast requirements will allow you to produce a competitive specialist.

As a result of the study, the conditions for the further development of the higher education system were determined:

- Close connection of the content and final results of vocational education with the real demands of the economy;
- Consolidation of efforts of all interested parties: the state, employers, educational institutions of higher education, public organizations;
- Interaction of all state authorities at the federal, regional, and municipal levels;
- Stimulating and increasing people's motivation to receive quality education throughout their lives;
- Stimulating educational institutions of higher education to improve the quality of education, taking into account the criteria for its assessment adopted both at the national and international level.

Taking into account the regional peculiarities of the existing higher education system, it is possible to identify the main internal constraints and external challenges facing the higher education system of the regions under consideration:

- The need to take into account the requirements of employers in the formation of students' competencies;
- The need to restructure the professional thinking of persons involved in the development and implementation of educational programs;
- Reduction in the number of applicants due to the unfavorable demographic situation and the orientation of a significant part of successful school graduates to enroll in the capital's universities.

Discussion

Modern realities, new challenges and trends in the development of vocational education require educational organizations to take a responsible attitude to defining the concept and developing educational programs.

The proposed algorithm for the formation of the concept and design of the educational program can be supplemented with other stages. The authors consider this algorithm as one of the possible approaches that does not exclude a different understanding and a different order of designing an educational program.

In addition, the article identifies the main challenges that, according to the authors, are characteristic of the vocational education system of the regions in question as a whole. A detailed study of the characteristics of each region, the system of vocational education that has developed in them, and existing problems will allow us to identify other challenges that affect the formation of human capital.

Conclusions

Promising areas of activity of high schools remain:

- Development of competence models of graduates focused on the needs of employers' representatives;
- Strengthening the practical orientation of training for mastering students' professional and labor actions;
- Development of educational trajectories that take into account the individual educational needs of students;
- Development of the electronic educational environment of the university, didactic models of distance learning.

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