### SCIENTIFIC AND EDUCATIONAL POTENTIAL OF THE BORDER AREA UNIVERSITY: EDUCATIONAL LEADERS TRAINING

# Lyudmila Sukhorukova<sup>1\*</sup>, Vladimir Mareev<sup>2</sup>, Nikolay Fokin<sup>3</sup>, Tatyana Shestakova<sup>4</sup>, Aleksandra Shestakova<sup>5</sup>

<sup>1</sup>Prof. Dr., Southern Federal University, Russia, Isuhorukova@sfedu.ru
<sup>2</sup>Prof. Dr., Southern Federal University, Russia, mareev@sfedu.ru
<sup>3</sup>Prof., Southern Federal University, Russia, nfokin@sfedu.ru
<sup>4</sup>Prof., Southern Federal University, Russia, tshestakova@sfedu.ru
<sup>5</sup>Southern Federal University, Russia, ashestakova@sfedu.ru
\*Corresponding author

#### Abstract

State borders and transboundary space are important terms for open and international cooperation in science and education. The authors of the article consider the problems and prospects of educational border territory of Russia. This involves the analysis, creation, and implementation of federal university's scientific and educational potential, to organize professional training of educational leaders. The main idea of the article is that the development of scientific and educational cooperation of border territories contributes to the innovative development of a single research and educational space with the systems of science and education of neighbouring countries. The aim of this study is to substantiate the integrating function of Southern Federal University in the system of cross-border and transboundary education of educational leaders based on scientific and educational potential. To achieve this, on the basis of domestic and international studies, the most promising areas of scientific research were identified and insufficiently studied problems of cross-border cooperation in education were systematized in relevant content - training leaders in the field of education. The working hypothesis is the assumption that the Southern Federal University has innovative scientific and educational potential to expand cooperation in the cross-border area of Southern Russia. The methodological basis and methods of research were the ideas of system-activity and competence-based approaches, the theory of internationalization and cross-border development of higher education. The source of empirical data was Russian and foreign studies on the training of educational leaders, leadership in education, authors' experience in educational Foresight, long-term experience in designing and implementing educational programs for master's degree and professional development of educational leaders. Methods of comparative and system analysis, deduction, induction, generalization and theoretical modelling were used. In the process of work methods of analysis and generalization of scientific publications and policy documents related to the discussed problems were applied. The essence of the phenomenon of "federal university in the geostrategic borderland" was defined. The development of effective dialogue in the field of education and science in the border geostrategic territory is one of the most important interdisciplinary areas in the activities of the Southern Federal University. It is shown that the development of transboundary, border and interregional relations actualizes the development of a sustainable system of continuous education for leaders of education in the border territory of Russia. The necessity of interdisciplinary scientific and educational projects, educational programs of master's training, professional retraining and advanced training in education leaders' training is emphasized. The study concludes with the discussion and formulation of prospective research on the issues of cooperation in the field of educational leaders' professional training. The results of the study can become part of scientifically substantiated views on the development of cross-border cooperation in pedagogical science and continuing teacher education.

Keywords: federal university, South of Russia, border territory, potential, educational leaders.

#### 1 INTRODUCTION

The modern type of international relations, considering the processes of globalization, is cross-border. The dynamic development of cross-border cooperation is a characteristic feature of the current stage of international relations in the humanitarian sphere. The search for new forms and mechanisms of interaction in the humanitarian border territories sphere remains one of the urgent tasks of cross-border cooperation.

Russia has a huge border perimeter, which consists of territories that differ in natural, demographic, and economic characteristics. The potentials of the border regions of Russia and neighbouring countries are priority areas for international cooperation. In the Concept of Cross-border Cooperation in the Russian Federation (2001), approved by the Decree of the Government of the Russian Federation of February 9, 2001 No. 196-r, the concept of "border territory of the Russian Federation" includes the border zone, the Russian part of the waters of border rivers, lakes and other bodies of water, internal sea waters and the territorial sea where the border regime is established, checkpoints across the state border of the Russian Federation, as well as the territories of administrative regions and cities, sanatorium-resort zones, specially protected natural areas, objects and other territories adjacent to the state border of the Russian Federation, the border zone , banks of border rivers, lakes and other bodies of water, sea coast or checkpoints.

The differentiation of Russian border territories and border communities determines the formation of various models and forms of cross-border cooperation. Among the long-term factors influencing cooperation in the border geostrategic territory, an important role is played by the potential of the scientific and educational federal universities. A key feature of the border geostrategic territory is the emphasis on local development with the use and development of the scientific and educational potential of universities, which is a management challenge for universities. This made it possible to identify the need and ways to detect, evaluate and analyse the potential of a particular phenomenon or process under study for their productive development, their management in various educational practices, in this case, the scientific and educational potential of Southern Federal university.

The system-forming state document for our study is the Spatial Development Strategy of the Russian Federation for the period up to 2025, aimed at "ensuring sustainable and balanced spatial development of the country, aimed at reducing interregional differences in the level and quality of life of the population, accelerating economic growth and technological development, as well as to ensure the national security of the country". The Strategy defines the priority and border geostrategic territories of the Russian Federation, bordering the countries that are members of the EU, the EAEU, and other countries. These documents formulate strategies for the development of the social sphere, including educational organizations located in the subjects classified as priority and border geostrategic territories of the Russian Federation. In the Spatial Development Strategy of the Russian Federation, the border belt is named as a geostrategic object. Border geostrategic territories include subjects of the Russian Federation that border on other states but are not included in the list of priority territories. At the same time, the neighbours of these entities are singled out: countries that are members of the EU; countries that are members of the Eurasian Economic Union; other countries. The inclusion of all border regions of the Russian Federation in the list of geostrategic territories is associated with the tasks of improving the infrastructure and connectivity of the regions.

These state strategies create opportunities for creating network educational structures, scientific collaborations based on the scientific and educational potential of the Southern Federal University (hereinafter referred to as SFedU). The combination of SFedU's border location with dynamic development is a challenge for the federal university. This means that universities must be proactive in creating opportunities for cooperation in the geostrategic border area, generating the necessary knowledge (Bathelt, Li, 2020). The development of an effective dialogue in the field of education and science in the border geostrategic territory is one of the most important interdisciplinary areas in the activities of the Southern Federal University. It should be noted that the Southern Federal University (the former Imperial Warsaw University in Rostov-on-Don) has been one of the first universities in the South of Russia since 1915, historically located in an important geopolitical region of Russia, and is a multi-ethnic society.

The development of the scientific and educational potential of the Southern Federal University to train leaders in the education of the border geostrategic territory is of decisive importance for creating humanitarian cooperation in the post-Soviet space, creating a single scientific and educational space, restoring old and developing new ties. In the international environment, this has led to the emergence of agreements establishing the legal order of cross-border interaction and imparting a sustainable nature of activities in the conditions of border crossings.

The purpose of this study is to substantiate the content of the scientific and educational potential of the

federal university as a resource for the innovative development of education of managerial personnel - leaders in education in the border geostrategic territory.

#### 2 METHODOLOGY

The methodological base was formed by the ideas of system-activity (Kraevsky, V.V.); potential-centered (Klochko, V.E.); competence-based (Baidenko, V.I.) approaches; theoretical ideas about the management of university research activities (Mareev, V.I.), inquiry-based learning, research education (Lebedeva, O.V.). The analysis of the integration of science and higher education is considered from the standpoint of a systematic approach (Yudin, E.G.), a cultural approach (Bondarevskaya, E.V.), and an educational and upbringing function of integration (Danilyuk, A.Y.).

#### 2.1 Research Methods

The source of empirical data was Russian and foreign studies on the training of leaders in the field of education, domestic leadership in education, the experience of the authors in the development of educational foresight, many years of experience in designing and implementing educational programs for master's programs and advanced training of leaders in education. Methods of comparative and system analysis, deduction, induction, generalization and theoretical modeling were used. In the process of work, methods of analysis and generalization of scientific publications and policy documents relevant to the issues under discussion were used. The information base of the study was made up of legislative and regulatory legal acts of the Russian Federation on the issues of state management of science and education in the system of spatial development of Russia. The study used new relationships in the subsystem "science-education" became a whole series of laws and by-laws ("Strategy for scientific and technological development of the Russian Federation until 2035", "Science" national project, etc.).

The theoretical basis of the research is dissertation research, monographs and scientific articles, materials of scientific and practical conferences, as well as other documents and materials on the subject of the research. The object of the content analysis was research on the training of educational leaders in the crossborder educational space of the CIS, SCO, BRICS, EU. The provisions and conclusions of Russian and foreign researchers dealing with the development of humanitarian relations in the border areas are also used; theory of the development of traditional forms of humanitarian cooperation in the border areas, combined with the introduction into practice of new forms and mechanisms of international relations based on the joint implementation of relevant humanitarian projects (Verkhutina, M.V., Kulakov, A.V.). The article uses studies of leaderology (Umansky, L.I., Shamova, T.I.), the provisions of the probabilistic model (Fidler, F., Spivak, V.A.), pedagogical leadership (Hallinger, P., Heck, R. H.). The study was built within the framework of the scientific school of E.V. Bondarevskaya: personality-oriented education of a cultural type, theories of research activity, science of science, integration of general and military pedagogy.

#### 3 RESULTS AND DISCUSSION

For this study, the relevant interdisciplinary scientific knowledge is the concepts of "integration of science and education", "scientific potential", "educational potential", "scientific and educational potential". A review of Russian literature shows that the problem of scientific potential has been studied since the 1960s. The works of G.M. Dobrova, V.V. Kiseleva and others. The works of V.Z. Gataullina, V.V. Ivanova, G.V. Monastyrskaya, G.G. Lyskov, who explore the issues of stimulation and assessment of scientific potential. In the works of D.A. Kuzina, A.M. Mukhamedyarova and others. The region is studied through the prism of scientific potential.

Definition given by N.A. Belova, in our opinion, most successfully reveals the essence of the concept of the scientific potential of the region, "this is a system of educational and research institutions operating in the region with an appropriate level of organization of research and development work, the professional staff of these institutions, the number of people receiving education who improve their qualifications and defend dissertations, as well as the new knowledge, technologies and other results of training and scientific research produced by them" (Belova, 2013, p.40). However, despite a significant number of publications, many aspects of studying the scientific potential, scientific and educational potential of the university, the region are not well understood.

In understanding the structure and content of the scientific and educational potential of the SFedU, its functions in the training of educational leaders in the border geostrategic territory, the authors use the theoretical provisions of the concept of expanding human choice (Sen A. K., 1970.), A potential-centered approach to the resource support of higher education. Scientific potential can be defined as the ability of an educational organization to quickly respond to urgent problems in the development of science, the needs of

society, country, region. The state of scientific potential can be defined as the ability of scientific teams of an educational organization of higher education to find scientific solutions to modern threats and challenges, to implement the results of research activities in the content of education, the implementation of the principle of scientific education (Mareev, 1999).

Research activity contributes to the formation of organizational, informational, communicative general educational skills and abilities of students, develops interest in the subjects studied, in addition, it satisfies the main categories of pedagogy: education (knowledge, skills, skills), upbringing (rules of behaviour with classmates, a teacher, in public places), development (memory, attention, logic, imagination develop) (Poddyakov, 2006; Savenkovet al.,2014).

The leading educational institution on the territory of the federal district is the Federal University - the centre of science, fundamental and applied research in the main scientific areas. It solves various problems, which are: implementation of innovative educational programs and systemic modernization of higher and postgraduate professional education; training and advanced training of personnel; implementation of fundamental and applied scientific research in various sciences; integration of science, education and production, and the like.

The potential-centered approach to is a key meta-methodological research technique in designing the scientific and educational potential of a federal university in the training of educational leaders. This requires an appeal to the concept of "potential" and other basic concepts. the meaning of this term as "a set of resources", but also "potency", that is, "a possibility, something that exists in a latent form and can manifest itself under certain conditions" (Ozhegov, 1987).

A number of researchers (Yu.I. Bogomolova) among the principles, the implementation of which ensures the development of the system of state regulation of the reproduction of human resources, taking into account the modern potential-centered approach, formulate the following: scientific and conceptual, characterizing the basic features of state regulation; strategic; axiological; performance-oriented; process (Bogomolova, 2012, 40).

The implementation of the potential-centered approach as a research tool in our study allows us to identify and justify:

- The contribution of scientific schools (the scientific school of E.V. Bondarevskaya, the scientific school of V.I. Mareev) at the federal university to study the development of education in the mega-region, which is the border geostrategic territory of the South of Russia (Bondarevskaya, 2003, 70).

- The presence of a potential opportunity to expand cooperation, create scientific collaborations and educational networks in the training of leaders in the formation of a border geostrategic territory. Ways to increase the scientific potential focus on three aspects of research activity - the ability of an educational organization of higher education to respond to new and complex problems facing the internal affairs bodies, to achieve the results required by customers of scientific products, and, finally, to regulate the scientific activities of teaching staff.

One of the most important characteristics of modern society is its educational potential. The sphere of education directly determines the production, scientific and technical and, ultimately, the economic potential of society. The task of forming the educational potential of society is one of the most important. The educational potential is realized at several levels of measurement: country, regional, individual. Three groups of subjects of reproduction and carriers of educational potential can be distinguished: society, social and professional group, individual (Makarova, M.N., 2006). The educational potential of the individual (the level of general education, professional and special training of the individual), according to S.B. Shitov, is a set of opportunities provided by education for the optimal development of vital and creative forces, abilities of the individual, his self-realization in the social system in accordance with his personal orientations (Shitov, 2009, 35).

The educational potential of SFedU is one of the leading factors positively influencing the development of territories. SFedU can both provide quality services and, in the future, accumulate the educational resources of neighboring territories based on network cooperation, creation of collaborations. The educational potential of SFedU is a set of educational programs of continuous professional education for the training of heads of educational organizations, leaders of education in the direction 44.04.01 Pedagogical education. The authors, starting from 2011 - 2022, have developed and are implementing a set of educational programs for the training of education management personnel on a budgetary basis:

- Management in the field of higher and additional professional education.

- Management of primary and secondary vocational education.
- Management in the field of secondary vocational education.
- Head of an educational organization: management in the field of education.
- Head of a professional educational organization.

- Head of an educational organization: management of a general educational organization. In addition, during this period, more than 100 programs of additional professional education and advanced training on the problems of management in education, education security management (extrabudgetary activities), etc. have been developed.

The scientific and educational potential is manifested in the ability of an educational organization of higher education to respond to new and complex problems in the professional training of personnel directly for the macroregion - the border geostrategic territory. In the aspect of thinking, scientific activity is characterized by such an attitude to reality as cognition. Kant emphasized: "the subject in the course of cognition forms an object, turning it into an object of cognition". Petrushevsky wrote "The main task of science is to overcome the infinite diversity of being by processing it into a concept" (Petrushevsky, 2019). Therefore, science cannot be considered on its own. It must be taken in the relationship "culture - science", "science - practice", "science - the personality of a scientist", as well as in terms of development.

For the professional training of leaders in education, it is relevant to analyze the factors of scientific and educational integration in an insufficiently studied dimension - border cooperation in the field of education and science. In understanding the scientific and educational potential, the authors highlight the most important innovative function of the Southern Federal University as a university - a "platform", as a centre of collaboration between researchers, designers of educational programs.

Scientific and educational potential and educational activities can be successful if educational programs are able to flexibly follow changes, including those of the border geostrategic territory (Fig. 1). Such changes include the formation of educational programs with a target set of SFedU competencies for the formation of scientific and educational potential relevant in the border geostrategic territory.

Figure № 1

## Scientific and educational potential of the Southern Federal University within the production processes of the formation of a border geostrategic territory

Content

1. Southern Federal University - a frontier university that forms a region of knowledge for training leaders in education:

- Relevant educational policy in the border geostrategic territory: SFedU as the center of the knowledge region;

- New functions of the university for the formation of a region of knowledge for the training of leaders in education: research education aimed at training researchers and specialists in the transfer of knowledge and technologies;

- Variable and flexible educational infrastructure for training leaders in education in SFedU;

- Cluster-oriented links with educational institutions of the border geostrategic territory;

- An investment program to support pilot programs of continuous professional education of leaders in the field of education.

2. Organization of the consolidated participation of educational organizations of the border geostrategic territory in the development of strategic documents for managing the development of continuing professional education for the period up to 2030:

- Development of a package of strategic documents of the Concept of continuous professional leaders in the formation of a border geostrategic territory;

- Organizational-cluster approach to the training of educational leaders;

- SFedU - a catalyst for the state policy of training managerial and pedagogical personnel of the

education system at a mega-university;

- development and implementation of a long-term program to support the development of academic and professional relations through the organization of conferences and seminars

- conceptual scheme of the system-scenario analysis of education leaders training.

3. Tasks for the development of professional education for leaders in SFedU. Optimize the role of SFedU in the formation of a border geostrategic territory and in the transboundary space:

- Development of educational, research programs aimed at the transfer of competencies that are relevant for leaders in education:

- Development of the effectiveness of the use of innovative and evidence-based knowledge in the development of a global project - training leaders in education in the border geostrategic territory;

- Creation of a single cycle of scientific, educational and innovative activities of multi-level training of managerial and pedagogical personnel of the education system, socio-cultural and humanitarian spheres that meets world requirements;

- To Model the process of transformation of continuous education in SFedU at the global, regional and institutional levels;

- SFedU's contribution to work with low-resource sections of society: the unemployed, migrants, migrants in relevant content - education at all levels throughout life, etc.

4. Educational potential: modernization of the educational programs of the SFedU training leaders in education: and ragogical aspect:

Adult education is an essential part of the lifelong learning system. Recurrent education.

Scenario and strategy for the development of adult education in SFedU. The role of higher and postgraduate education for humanitarian and social development in the context of globalization.

Regional Integration of SFedU as an Integration System: University Priorities in the Border Geostrategic Territory:

- Development in the region of a policy of coherence on the problems of adult education, education throughout life;

- Implementation of the principle of complementarity and development of SFedU priorities in the implementation of state policy in the field of training leaders in education;

- Interaction with various integration associations in the border geostrategic territory: Boards of directors of colleges, regions, territories; scientific and methodological associations for the training of leaders in the field of education.

In designing the scientific and educational front of SFedU, the authors believe that the education system is one of the human rights spheres of life of modern society, responsible for the reproduction of its intellectual resources. Southern Federal University has a large reserve of functions (educational, research and cultural education), develops innovation and design activities in the new conditions of limited development (border geostrategic territory):

- The function of providing conditions for the professional development of students - obtaining new knowledge, creating and transferring new technologies, training specialists, bachelors, masters, retraining and advanced training;

- The function of forming a personality-oriented educational environment that contributes to the personal and professional development of students;

- Scientific and methodological, design, mediation, creative, implementation, expert, support of sustainable education. Among the values of the characteristics, the authors are found in the novels of the Russian federal legislation "On Education in the Russian Federation" (2012), which assigns an essential function to

the education system, identified in the advanced algorithm of experimental tests and calculations of master's programs and programs of additional professional education qualifications management personnel education. education, united in a system of permanent education and the expected challenge of the modern development of Russian society and international cooperation.

#### 4 CONCLUSION AND DISCUSSION

The development of territories is determined by the influence of many factors, including social, economic, climatic, geographical. The latter include the border location. The border factor is especially important for Russia and its regions. The federal policy towards the border regions is largely a reflection of the peculiarities and problems of regional policy in Russia as a whole. Currently, support for cross-border cooperation is associated primarily with ensuring the national security of the country, cross-border cooperation has ceased to be considered as part of regional policy, including in the field of education and science. Today, there are increased requirements for the quality of functioning of modern educational systems, their reliability, predictability, efficiency and effectiveness in the global and regional educational space.

Management of the development of education in the border geostrategic territory is a new task in the activities of education leaders, leaders of education in this particular type of spatial development of Russia, based on the provisions of the Federal Law on the Basics of Cross-Border Cooperation (2017). The most important resource of educational organizations are leaders, managers who are able to quickly respond to risks, offer new, non-standard solutions, generate original ideas and proposals, develop strategies for the development of education in the context of cross-border and cross-border cooperation.

Federal universities have the right to develop their own educational standards, to form an up-to-date educational and scientific policy for the innovative development of not only the region, but also the border geostrategic territory. In this context, the authors developed the long-term competitive advantages of SFedU: the scientific and educational potential of SFedU in training leaders in the formation of a border geostrategic territory. In particular, the scientific and educational potential involves the creation of a complex of research programs for cross-border and cross-border development of training leaders in education based on the activities of scientific schools, scientific collaborations of the SFedU.

Organization of scientific research within scientific schools:

- Scientific school of E.V. Bondarevskaya: personally-oriented education and upbringing of a cultural type.

- Scientific school of E.V. Bondarevskaya: pedagogical science of science, scientific schools in the pedagogical science of the South of Russia; integration of general and military pedagogy in pre-professional military education (Sukhorukova, L.M.).

- Scientific school of V.I. Mareev: management of research activities of the university, the university complex; management in the field of science; educational Foresight "Integration of educational, research, innovation, resource potentials of the border geostrategic territory in the development of teacher education";

- Organization of the scientific, educational and educational collaboration "Training the leaders of modern education" (Fokin, N.I., Ivchenko, M.V., Shestakova, T.N., Shestakova, A.G.).

- Organization of the scientific, educational and educational project "Scientific School of Evgenia Vasilievna Bondarevskaya. Migrant pedagogy: migration management in education in modern conditions" (Sukhorukova, L.M., Fokin, N.I., Ivchenko, M.V., Shestakova, T.N., Shestakova, A.G.).

#### **REFERENCE LIST**

- Bathelt, H., & Li, P. (2020). Processes of building cross-border knowledge pipelines. *Research Policy*, 49(3). https://doi.org/10.1016/j.respol.2020.103928
- Belova, N. A. (2013). Methodology for assessing the scientific potential of the region. *Management of economic systems: electronic scientific journal*, (3), 40.
- Bogomolova, Y. I. (2012). On the basic principles of the formation of the policy of the Russian state in the field of reproduction of human potential in the context of globalization. *World of Economics and Law*,

(8), 40-47.

- Bondarevskaya, E. V., Borisenkov, V. P., Grekov, A. A. (2003). Development of education in the Southern Federal District. *Pedagogy*, (9), 70-76.
- Federal Law No. 179-FZ, July 26, 2017 "On the fundamentals of cross-border cooperation" (as amended) https://base.garant.ru/71730188/
- Federal Law of December 29, 2012 N 273-FZ "On Education in the Russian Federation" // SZ RF. 2019. No. 13. Art. 69-72.
- Makarova, M. N. (2006). Implementation of the main types of reproduction of educational potential in modern society. *Bulletin of the Udmurt University. Philosophy. Psychology. Pedagogy*, (3), 56-67.
- Mareev, V. I. (1999). Theoretical foundations of pedagogical university teachers research activities. *Volgograd*, 47
- Ozhegov, S. I. (1987). Ozhegov, S.I. Dictionary of the Russian language. M.: Russian language, 403-404. ISBN: 5-200-00313-X.
- Petrushevsky, D. M. (2019). Essays from the history of medieval society and state. URAIT. ISBN 978-5-534-06363-9
- Poddyakov, A. N. (2006). Methodological foundations for the study and development of research activities. *School Technology*, (3), 85-89.
- Pugacheva, N. B. (2011). Priority tasks of higher professional education in modern theory and practice. *Sociosphere*, 2011(1), 42-46.
- Russian Federal Law "On Education in the Russian Federation" dated December 29, 2012 No. 273-FZ https://base.garant.ru/77308190/
- Savenkov, A. I., Lvova, A. S., Vachkova, S. N., Lyubchenko, O. A., & Nikitina, E. K. (2014). Training of teachers in the magistracy of a new generation. *Psychological Science and Education*, 19(3), 197-206.
- Sen, A. (2017). Collective choice and social welfare. In Collective Choice and Social Welfare. Harvard University Press. ISBN 10: 0674919211
- Shitov, S. B. (2009). Innovative education in the emerging knowledge society. News of higher educational institutions. Volga region. Humanities, (4), 35-41.
- Spatial Development Strategy of the Russian Federation for the period up to 2025 (approved by Decree of the Government of the Russian Federation No. 207-r, February 13, 2019), http://static.government.ru/media/files/UVAlqUtT08o60RktoOXI22JjAe7irNxc.pdf
- The concept of cross-border cooperation in the Russian Federation [Text] October 7, 2020 No. 2577-r. http://government.ru/docs/40585/
- Vladyka, M. V. (2009). Innovative potential of universities as the factor of economic development competitiveness. *Economy. Informatics*, 10(7) 62.