

VI International Forum on Teacher Education

Designing Research Programs in the Field of Teacher Education in the Global Context

Alexandre G. Bermous*

*Southern Federal University, 344006, Rostov-on-Don (Russia), 105/42 Bolshaya Sadovaya Street ,
bermous@sfedu.ru*

Abstract

The urgency of the problems of designing and implementing research programs in modern education is determined by global transformations of the sociocultural and educational spheres around the world, caused by many reasons, but made visible as a result of the coronavirus pandemic. In this situation, education cannot mechanically reproduce existing models and practices of both full-time and distance learning, but should be rethought regarding changing conditions and contexts. The aim of the article is to formulate a categorical and methodological apparatus for analyzing the entire set of humanitarian practices, in statics and dynamics, with the aim of reflectively creating and developing educational systems. The leading method of analysis and reconstruction is the “field approach”, based on the ideas and concepts of psychology (K. Levin), sociology (P. Bourdieu) and psychoanalysis (J. Lacan) and providing a comprehensive description and problematization of the main aspects of educational reality: the value, the instrumental, the resource, and the human ones. It is noted that the approach allows one to overcome the one-sidedness and radicalism of various divisions and principles: a systemic or personal priority; the preference of quantitative or qualitative methods, subjectivity or objectivity concepts. The empirical basis of the study was made up of resources and tools for analyzing publication activity on the Dimensions (www.dimensions.ai) and SciVal (<https://www.scival.com/>) platforms. The results presented in the article allow solving two interrelated problems: to modernize the scientific activity management system by level of individual universities focused on global competitiveness, and identify key areas of research in the field of education, relevant both from the point of view of the Russian educational situation and from the point of view of global trends.

Keywords: research in the field of education, research programs, scientific and educational policy, clustering, paradigm approach, field approach, structural psychoanalysis, discourses, research matrix

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Published by Kazan federal university and peer-reviewed under responsibility of IFTE-2020 (VI International Forum on Teacher Education)

* Corresponding author. E-mail: bermous@sfedu.ru

Introduction

Problematization in the field of designing scientific research in the field of education has a well-defined political context. So, speaking at a meeting of the Presidium of the State Council and the Council on Science and Education dedicated to higher education, Russian President Vladimir Putin drew attention to the fact that only 12% of graduate students defend their dissertation. Accordingly, it is necessary that “an applicant for a scientific degree conducts research in the interests of a particular university and a scientific and educational center in the region ... we must definitely achieve such a connection between science, education and real life, real production” (Latukhina, 2020).

At the same time, the still existing priorities of the Ministry of Science and Higher Education are related to internationalization of Russian science; increased indicators of publication activity in international knowledge bases (Scopus, Web of Science), as a result of which publication in a journal from the Scopus list is estimated 38 times higher than a similar publication in a journal from the list of Higher Attestation Committee or publication of a monograph in Russian (Kuzmin, 2020).

Literature review

This discussion has a definite scientific and philosophical source in the form of a problem-relationship between the “capital”, “provincial” and “native” sciences (Sokolov & Titaev, 2013). Recently, it has been customary to comprehend these problems through the prism of contrasting pedagogical tradition (Syubareva, 2012; Statsenko & Chukaeva, 2012; Borovykh, 2009) and educational innovations (Molchanov, 2010; Gluzman, 2016; Akhmetvaleeva & Mullagayaova, 2017).

In this case, the most common attributes of pedagogical traditionalism are: the relationship of pedagogical tradition with the inheritance of national, religious, cultural and state values; the unity and integrity of all the pedagogical process and its subordination to the ideal of man; the predominant role of the teacher in education and the need for his special training, involving the development of spiritual qualities and properties.

Meanwhile, in recent years, a number of problems have been actualized that cannot be solved by a unilateral ideological choice of one of the value systems, but require a significant change in the very way of interpreting value differences. They are:

- 1) promoting existing scientific schools and traditions, while incorporating them into global processes and increasing their ability to respond to today's challenges;

- 2) the conceptualization of multiple gaps in relation to declared priorities and everyday practices; the formation of resources for practical, research and management activities in these conditions;
- 3) determination of strategic priorities and effective mechanisms for their implementation in innovation.

We must also take into account a number of circumstances characteristic of the methodological foundations of humanitarian knowledge, among which:

1. Anthropological turn in the humanities (Poselyagin, 2012; Konev, 2014): we are talking about the return of the Socratic ideal of questioning knowledge, commensurate with man and his way of being.
2. Understanding digitalization as an ambivalent context, containing opportunities for solving pressing social, economic and educational problems, and the no less risks of dehumanizing human life (Yudina, 2017; Ustyuzhanina & Evsyukov, 2018).
3. The heterogeneity of the time measures of educational processes as an essential attribute that defines the field of substantial inconsistencies (Pavlova, 2017; Ostapenko, 2016).
4. Non-linearity of educational processes and systems, suggesting synergistic self-organization; irreversibility of time; variability and crisis nature of development (Zborovskij et al., 2016; Akulova, 2005).

The most appropriate framework for solving these problems seems to us to be a field approach, against which we have already considered problems and strategies for standardizing teacher education (Bermous, 2019). In the previous study, the following arguments were in favor of the field approach: the need to combine traditional “knowledge” (so-called, ZUN-paradigm) and competency-based interpretations; an increase in the number and complication of standardization (including the emergence of educational and professional standards; the need to combine the requirements of the Federal State Educational Standard for secondary and higher education); the transformation of educational institutions into educational clusters, etc.

Purpose of the study

The main purpose of our study is to develop a methodology for designing research activities in education in a global context, based on three mutually complementary approaches: paradigmatic, field and structural-analytical ones.

Methodology

As it has been already noted, the methodology of the research is determined by three interrelated and complementary intellectual strategies: the program-field approach in the tradition of Kuhn (1977) and Lakatos (1995), field representations of Bourdieu (2005; 2001), as well as the structural psychoanalysis of Lacan (1988).

In particular, we are talking about the following concepts and interpretative schemes.

The concept of a “scientific paradigm” (Kuhn, 1977) and a “research program” (Lakatos, 1995) allows to classify the forms and strategies of scientific activity, identifying the following elements and relationships:

- Understanding the paradigm as a dialectical unity of a certain community of scientists, researchers and practitioners, the basic concepts used, generally accepted research methods and methods for interpreting the results;
- The heterogeneity of any system of scientific representations, including a relatively stable core (basic concepts, generally accepted methods and interpretations) and a more dynamic periphery, represented by many studies, including those that cast doubt on the fundamental foundations;
- The competitiveness and politicization of any knowledge system that is derived from the prevailing methods of reasoning and communication in the scientific community.

The concepts of the space and field of education (Bourdieu, 2005; Bourdieu, 2001; Vakan, 2007; Ivanova, 2012) allow us to interpret the relationship of mutual dependence and opposition of elements as a producing “ensembles”, “devices”, ensuring the reproduction of the necessary types of symbolic capital. The field approach allows us to overcome the dichotomy of objectivism and subjectivity, which considers social reality either independently of individual qualities and properties of a person, or, on the contrary, absolutizing and mystifying his free will. The field approach makes it possible to distinguish “habitus” (stable models, habits, to some extent, having an objective character) and contingency - individual features and strategies built in an attempt to overcome “automatisms”.

The analysis of internal contradictions, limitations and barriers associated with research activities, as well as the assessment of the influence of the cultural context on the morphology and meanings of research procedures, can be effectively carried out using structural-analytical interpretations originating from Jacques Lacan (cited in Naumova, 2015). Using this set of interpretations allows you to evaluate:

- The relationship between the Real (research or practical), the Imaginative (a set of interpretations) and the Symbolic (language used, system of power and procedures for legitimizing knowledge). These three instances are dynamically related to each other, which sets a very non-trivial landscape of any human (including research) activity;
- The combination of scientific research, practice and management as a result of the inconsistency of symbolic structures and differences of the imaginary;
- A typology of interactions, realized in a certain plot. The analysis of scientific practice should include systematic analytics of discourses and texts representing both emotional and intellectual experiences of the subject.

The experimental base of the study includes resources of international knowledge bases and search engines in the field of social sciences and education sciences, including: Scopus, SciVal and Dimensions.

Results

Our results are represented by three interconnected components. First, we turned to Dimensions.ai analytics in section 13. Education.

We used the statistics of Citations (that is, publications of the last decades were ranked by the aggregate rating - the number of citations) and publications whose aggregate rating (number of citations) exceeded 1000 were selected. Then, according to the keywords of publications, clustering of publications was carried out with the aim of forming semantic clusters of popular publications.

As a result, we formed clusters of significant topics and keywords, as well as the most cited articles in each of the areas:

1. Qualitative research methods and methodologies (research on the history and methodology of the humanities; human biographies and experience; monographic texts, communications, cases in cognition, research and training, discursive analysis; forecasting methodology, etc.). The most popular publications in this cluster are: Long et al. (1993), Brown et al. (1989), Welch & Patton (1992), Kuhn & Sternfeld (1970).
2. Methodologies for quantitative data analysis (metrics, assessing the reliability and predictive power of measurements, evaluating the effectiveness of education, the significance of factors and conditions, the use of various types of questions and their relevance; scientometric research). In this cluster, the most popular publications (Black & Wiliam, 1998; Norman, 2010).

3. Studies of trends and reforms in the field of education (including the relationship between cognition and training, education, learning, teaching, translation; the use of the scientific method in teaching; the impact of managerial theories and concepts on practice, active and interactive teaching methods, PBL - project and problem-oriented training). Most popular article is that one: Shulman (1987).
4. Informatics and IT in education (including new data models, their processing and use in education, visualization and virtual reality). Most popular article is by Miller et al. (1990).
5. Cognitive psychology, the psychology of education and individualization problems (including the psychology of reading, writing; types of behavior and thinking; barriers of perception and thinking, bilingualism; racial, national and cultural differences in education; personality in education: motivation, attitudes, emotional response, self-efficacy and self-regulation). The most popular articles are: Stanovich (1986), Kollmuss & Agyeman (2002), Bandura (1993).
6. Professional training of a teacher (including standards, models and practice of training teachers; correlation of psychological, pedagogical and subject components; examination and assessment of the quality of training, criteria and signs of pedagogical professionalism, means and methods of increasing productivity and effectiveness). The most popular articles are by Ramsden (2002), Michael et al. (2001).

To obtain the following result, we used the SciVal search engine, which allows extracting a set of parameters: to form clusters of the most frequently used keywords in publications; evaluate both the absolute values of publications with these words and the dynamics of publication activity; identify promising international collaborations.

To obtain the final results, we clustered the data of the primary search of keywords in several areas of research, then we identified the most significant positions of consumers and partners in the process, for whom knowledge in this field may be relevant; and compared the results to typical problems and possible solutions (results). Thus, we managed to form a matrix of studies in the national educational sciences:

Table 1. Matrix of studies in the national educational sciences.

<i>N</i>	<i>The research area</i>	<i>Key partners</i>	<i>Research problems</i>	<i>Actual results</i>
1.	Educational policy and law	Heads of educational institutions and systems, expert services, educational policies and social leaders	Regulatory support of educational activities, typology of standards; mechanisms of certification, accreditation; partnership in education	New educational standards, effective licensing, certification and accreditation mechanisms, strategic management models in education, quality and management systems in education, models of in-school inspection, formative assessment
2.	Modernization of the contents and technologies of teacher education	Teachers, heads of scientific departments and methodological services, social partners	(Re)sources of teacher education curricula and their updating, content modeling, scientific and pedagogical discourse, practices and technologies of teacher education, modern types of activities (educational, research (design, scientific and methodological))	Design of information and educational environments, gamification of educational processes, tools and technologies of qualitative studies at education, technology of using “big data” in education; technological support for the implementation and monitoring of educational standards
3.	Philosophical and pedagogical anthropology	Parents, tutors, representatives of social and humanitarian disciplines, physicians, representatives of	Cultural, historical and religious types of education; the origins and meanings of teacher education, personal identifiers and strategies, human capital and the	Strategies and practices for increasing the human (cultural, social) capital of communities, development and implementation of cultural and educational programs, trainings for personal and professional development of teachers and parents,

		creative professions, faith leaders, etc.	potential of educational institutions, multiculturalism and multi-linguism in education	interdisciplinary studies of the sociocultural practices of growing up, initiation, etc.
4.	Individualization and personalization strategies in education	Teachers of additional and individual education, school psychologists, social educators, tutors, representatives of private education	Phenomenology of individuality in education, principles and models of inclusive education, individual support for students, tools for assessing individual progress in education	Design of individual educational programs and inclusive education programs, the organization of external studies and home-learning, program design for additional education (including Edutainment, STI infrastructure), career management of teachers and burnout prevention, parent training programs
5.	Methodology of comprehensive research in the field of education	Politicians and public figures, representatives of academic and applied science, researchers in the social and humanitarian sphere, teachers, leaders of scientific schools and areas	The quality of teaching, educational activities and processes, discourses, strategies and models of humanitarian research in education, problems and prospects of the design of scientific research, the development of the system of state certification	Research programs and development programs about separate research areas and practices, programs for the training and professional development of researchers in the system of additional (postgraduate) professional education, new research protocols
6.	Strategies for the development of integrated	Policies in the field of education at the regional and federal	Modernization of educational programs and training modules for teachers; cultural,	Models for identifying, supporting and training leaders in education, projects for the modernization of educational infrastructure, the organization of dual

	educational systems (clusters)	levels, educational experts, social partners	educational and educational space of a modern university (college, region); modern models of interaction between educational institutions and practices, the ecosystem of teacher education	training in the field of teacher education, models and strategies for innovative activities in regional educational systems
7.	Inter-regional and international cooperation in the field of general and teacher education	Colleagues and partners from other regions, countries and subsystems of teacher education, international experts and representatives of international organizations in the field of education	Directions and models of inter-institutional, inter-regional and international cooperation in the field of general and teacher education, cooperation priorities, comparative studies of transformation experience, risks and tools for organizing cooperation	Organization of international (comparative) studies of the quality and content of education, development and implementation of “double diplomas” programs, adaptation programs for migrants, training managers in the field of international education, a comprehensive examination of the potential and sustainability of educational systems, education as a factor of national and international security, strategies for the development of education in a pandemic

The third component of the result obtained is the interpretation of the main components of comprehensive scientific and humanitarian research in the field of education in the context of the structural psychoanalysis of Lacan (1998) as well as Pechenina (2007), Petrov (2009), Naumova (2015). We are talking about the presence in the space of any study of four intertwined, but structurally different discourses.

1. The discourse of the Real. The researcher turns to the world in an attempt to determine the "real state of affairs", to isolate the "actual problems" necessary for their resolution of "methodological

foundations." The task is to determine the reality within which you can work; language to speak; scientific traditions that you can rely on. This discourse fills the world with "others" - predecessors, founders, representatives of competing scientific schools, students and colleagues, objects of study and interaction.

2. The Discourse of the Imaginary. From the vast sphere of the real, the realm is cut out, that is, directly related to the possibilities and attitudes of the "I", which defines not only the field of my activity, but also indirectly defines me. The purpose, objectives, hypothesis of the study are designed to objectify the image of the desired reality, including both external (objective) and internal (emotional-value) aspects. Moreover, the goal of any research is the product of a compromise between desire and opportunity, personal and social.

3. The research process. The global reality of research is the practice of transforming figures, texts, and relationships. It is in it that some hidden content (trends, patterns, new models, promising areas) can come to the surface; on the contrary, some "obvious" realities may appear in unexpected light and turn out to be problems. Thus, research practices, in and of themselves, are a grandiose machine for converting meanings in various semantic contexts.

4. The discourse of the Symbolic. The result of any study needs to be consolidated through a set of final interpretations: the reliability and validity of the measurements taken; the validity of the provisions to be defended, scientific novelty, theoretical and practical significance, etc. There is a projection of the internal content of the process outside and its formalization as a "contribution" to scientific knowledge.

Discussion

Already in the process of writing the article, a message came about the decree adopted by the Government of the Russian Federation No. 907-r dated April 6, 2020, on the transfer of 33 federal pedagogical universities from the jurisdiction of the Ministry of Science and Higher Education to the Ministry of Education of the Russian Federation.

We will not discuss the numerous administrative, financial, managerial and other aspects of this step, but we will pay attention only to the fact that precisely the indicators of the quality of research activity were among the main motives for classifying pedagogical universities as the "third category", and, ultimately, became trigger decision. It is also obvious that the way out of the crisis will be associated with:

- the development of modern design mechanisms and examination of the quality of research in the field of education;

- testing of new models of organization of scientific and educational activities at the regional and federal levels;
- design of information systems that provide for the collection and processing of data on educational systems and processes;
- the development of an advanced model of research activity (primarily post-graduate), which ensures high productivity of research practices.

Conclusion

Based on the totality of these conditions, it can be concluded that it is the solution of the problems of scientific and educational policy that will be the key to the development of the teacher education in Russia. The pandemic made visible the fundamental shifts in education: changes in the relationship between traditional and innovative components of educational activity; globalization of the educational environment; transformation of subjective positions. In these conditions, research in the field of education ceases to be an elite addition to educational policy and practice, but becomes a tool and condition for self-determination, the most important method of training, and also - the basis for many activities.

In the framework of the declared “field” approach to the analysis of the emerging educational situation and its development trends, priority areas and research infrastructures were identified. In addition, it should be noted that at a qualitative level, it becomes clear the need to develop a research development strategy focused on three qualitatively different scientific product markets: regional, federal (national) and global. The priorities of the first level will be the development of tools for interaction with regional employers, scientific and methodological support of the system of additional education, modernization of management systems at the regional level. At the federal level, the priority will be the creation of infrastructure, the maintenance of the value unity of the educational system, the creation of a resource for pursuing an active educational policy. Finally, at the global level, analytics of global processes and self-determination in them, increasing the attractiveness and effectiveness of education, creating tools for long-term planning and international communication and cooperation in education is a priority.

Acknowledgements

The author is grateful to the Vladimir Potanin Foundation, which provided grant No. GK200000386 for the development of the master's program “Interdisciplinary Research in Education”, in which the ideas discussed in this article are implemented.

References

- Akulova, O. V. (2005). The problem of building a nonlinear learning process in the information environment. *Chelovek i obrazovanie [Human being and Education]*, 3.
- Akhmetvaleeva, E. M., & Mullagayaova, G. S. (2017). Educational innovations. *Sankt-Peterburgskij obrazovatel'nyj vestnik [St. Petersburg Educational Bulletin]*, 1(5).
- Bandura, A. (1993). Perceived Self-Efficacy in Cognitive Development and Functioning. *Educational Psychologist*, 28(2), 117-148. https://doi.org/10.1207/s15326985ep2802_3
- Bermous, A. G. (2019). Representation of standardization of teacher education in the field approach. *Neprieryvnoe obrazovanie: XXI vek [Continuing Education: 21st Century]*, 3(27). DOI: 10.15393/j5.art.2019.4944
- Black, P., & Wiliam, D. (1998). Assessment and Classroom Learning. *Assessment in Education: Principles, Policy and Practice*, 5(1), 7-74. <https://doi.org/10.1080/0969595980050102>
- Borovykh, V. P. (2009). Tradition as a form of pedagogical consciousness. *Izvestiya VGPU [The VSPU news]*, 9.
- Brown, J. S., Collins, A., & Duguid, P. (1989). Situated Cognition and the Culture of Learning. *Educational Researcher*, 18(1), 32-42. <https://doi.org/10.3102/0013189x018001032>
- Bourdieu, P. (2005). *Sociology is in doubt. Social sciences in a post-structuralist perspective: almanacs of the Russian-French Center for Sociology and Philosophy. Pierre Bourdieu on science as a field of symbolic production*. Moscow: Praksis.
- Bourdieu, P. (2001). *Practical sense*. Saint Petersburg: Aletejya.
- Ivanova, N. A. (2012). Pierre Bourdieu on science as a field of symbolic production and the role of habitus in it. *Vestnik Tomskogo gosudarstvennogo universiteta. Filosofiya. Sociologiya. Politologiya. [Bulletin of Tomsk State University. Philosophy. Sociology. Political science]*, 4(20), 1.
- Gluzman, A. V. (2016). Educational innovation. *Gumanitarnye nauki [Humanitarian sciences]*, 3(35).

- Kollmuss, A., & Agyeman J. (2002). Mind the Gap: Why do people act environmentally and what are the barriers to pro-environmental behavior? *Environmental Education Research*, 8(3), 239-260. <https://doi.org/10.1080/13504620220145401>
- Konev, V. A. (2014). Anthropological turn / reversal of culture - a new version of the modernist project. *Mezhdunarodnyj zhurnal issledovanij kul'tury [International Journal of Cultural Studies]*, 2(15).
- Kuhn, T. (1977). *The structure of scientific revolutions*. M.: Izdatel'stvo Progress.
- Kuhn T.S., & Sternfeld R. (1970). BOOK AND FILM REVIEWS: Revolutionary View of the History of Science: The Structure of Scientific Revolutions. *The Physics Teacher*, 8(2), 96-98. <https://doi.org/10.1119/1.2351447>
- Kuzmin, S. V. (January 14, 2020). *On adjusting the state assignment taking into account the methodology for calculating the comprehensive score of publication performance*. Retrieved from <http://www.consultant.ru/cons/cgi/online.cgi?req=doc&base=EXP&n=421632&dst=100001#02415783004590999>
- Lacan, J. (1998). *The four fundamental concepts of psycho-analysis* (Vol. 11). WW norton & Company.
- Lakatos, I. (1995). The Methodology of Scientific Research Programmes. *Voprosy filosofii [Philosophy Issues]*, 4.
- Lakatos, I. (1970). *Falsification and the methodology of scientific research programs*. Medium.
- Latukhina, K. (February 06, 2020). Vladimir Putin said about systemic problems in graduate. *Rossijskaya gazeta [Russian newspaper]*. Retrieved from <https://rg.ru/2020/02/06/vladimir-putin-zaiavil-o-sistemnyh-problemah-v-aspiranture.html>
- Long, D. R., Strauss, A., & Corbin, J. (1993). Basics of Qualitative Research: Grounded Theory Procedures and Techniques. *Modern Language Journal*, 77(2), 235. <https://doi.org/10.2307/328955>
- Michael, S. Garet, M.S., Porter, A.C., & Desimone, L. (2001). What Makes Professional Development Effective? Results From a National Sample of Teachers. *American Educational Research Journal*, 38(4), 915-945. <https://doi.org/10.3102/00028312038004915>
- Miller, G. A., Beckwith, R., & Fellbaum, Ch. (1990). Introduction to WordNet: An On-line Lexical Database. *International Journal of Lexicography*, 3(4), 235-244. <https://doi.org/10.1093/ijl/3.4.235>

- Molchanov, S. G. (2010). The phenomenon of "Innovation" in education. *Chelyabinskij gumanitarij [Chelyabinsk Humanities]*, 2(11).
- Naumova, E. I. (2015). The concept of Lakan's discourse: knowledge, science, university. *Vestnik LGU im. A.S. Pushkina [The LGU named after A.S. Pushkin Bulletin]*, 3.
- Norman, G. G. (2010). Likert scales, levels of measurement and the "laws" of statistics. *Advances in Health Sciences Education*, 15(5), 625-632. <https://doi.org/10.1007/s10459-010-9222-y>
- Osipov, V. S. (2017). The paradigm of law and the legal scientific community (based on the concept of Thomas Kuhn). *Vestnik ekonomicheskoy bezopasnosti [Bulletin of economic security]*, 4.
- Ostapenko, G. S. (2016). Structural and dynamic specificity of the heterochronous development of the cognitive sphere of a teenager. *ANI: pedagogika i psihologiya [ANI: Pedagogy and Psychology]*, 3(16).
- Pavlova, E. V. (2017). Heterochronism of the development of professional and psychological characteristics of future subject teachers in the process of studying at a higher school. *Vestnik YUUrGU [The YURGU Bulletin. Psychology]*, 2.
- Pechenina, O. V. (2007). Functions of the real, imaginary and symbolic in the communicative model of structural psychoanalysis by J. Lacan. *Vestnik SPbGU. Seriya 6. Politologiya. Mezhdunarodnye otnosheniya [Bulletin of St. Petersburg State University. Series 6. Political science. International relationships]*, 4.
- Petrov, D. B. (2009). Culture, science and religion in the structural psychoanalysis of Jacques Lacan. *Izv. Sarat. un-ta Nov. ser. Ser. Filosofiya. Psihologiya. Pedagogika [Issues of the Saratov University. Series: Philosophy. Psychology. Pedagogy]*, 1.
- Poselyagin, N. (2012). Anthropological turn in the Russian humanities. *NLO – New literary review*, 1.
- Ramsden, P. (2002). *Learning to Teach in Higher Education*. <https://doi.org/10.4324/9780203413937>
- Shulman, L. (1987). Knowledge and Teaching: Foundations of the New Reform. *Harvard Educational Review*, 57(1), 1-23. <https://doi.org/10.17763/haer.57.1.j463w79r56455411>
- Sokolov, M., & Titaev, K. (2013). Provincial and native science. *Anthropological Forum*, 19 (pp. 11-15). Retrieved from <https://cyberleninka.ru/article/n/forum-provintsialnaya-i-tuzemnaya-nauka>

- Stanovich, K. E. (1986). Matthew Effects in Reading: Some Consequences of Individual Differences in the Acquisition of Literacy. *Reading Research Quarterly*, 21(4), 360-407. <https://doi.org/10.1598/rrq.21.4.1>
- Statsenko, A. S., & Chukaeva, M. V. (2012). Pedagogical traditions of the Russian school and modern education. *Obshchestvo: sociologiya, psihologiya, pedagogika [Society: sociology, psychology, pedagogy]*, 1.
- Syubareva, I. F. (2012). Pedagogical traditions: essence, features of functioning and development. *Vestnik VUiT [The Volzhsky University Bulletin]*, 3.
- Ustyuzhanina, E.,V., & Evsyukov, S. G. (2018). Digitalization of the educational environment: opportunities and threats. *Vestnik REA im. G.V. Plekhanova [The Russian economical academy Bulletin]*, 1(97).
- Vakan, L. (2007). Sociology of Education by P. Bourdieu. *Sociologicheskie issledovaniya [Sociological studies]*, 6, 93-101.
- Vorob'ev, D.V. (2016). Conventionalism and instrumentalism in the light of the theory of research programs by Imre Lacatos. *Filosofiya nauki i tekhniki [The philosophy of science and technology]*, 21(2), 97 – 110. DOI:10.21146/2413-9084-2016-21-2-97-110
- Welch, J. K., & Patton, M.Q. (1992). Qualitative Evaluation and Research Methods. *Modern Language Journal*, 76(4), 543. <https://doi.org/10.2307/330063>
- Yudina, T. N. (2017). Digitalization as a trend in the modern economic development of the Russian Federation: Pro y contra. *Gosudarstvennoe i municipal'noe upravlenie. Uchenye zapiski SKAGS [State and municipal government. Scholarly notes of SKAGS]*, 3.
- Zborovskij, G.E., Shuklina, E.A., & Ambarova, P.A. (2016). Nonlinearity of the development of higher education: the contours of the concept and possible macro-regional practices. *Vysshiee obrazovanie v Rossii [Higher Education in Russia]*, 12.