

ПЕДАГОГИКА

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Inclusion of pedagogical universities in international subject rankings: Problems and prospects

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Abstract. The present study actualizes the problem of internationalization of Russian pedagogical education, the solution to which will ensure the “recognition of universities” in the global education market and the entry of Russian and Chinese universities into the international educational market. We associate the solution to this problem with the digitalization of education, the internationalization of the national system of higher education, organization of world-class research, participation in projects, programs and international professional associations. The study used the method of analysis of open sources of data, a survey of experts (working at the Higher School of Economics (HSE), Kazan Federal University (KFU)) and the method of semi-structured interviews. The empirical basis of the study was the analysis of data from the international rankings Quacquarelli Symonds World University Rankings (QS), Academic Ranking of World Universities (ARWU), Times Higher Education World University Rankings (THE) (including the subject ranking “Education”) and the Moscow International Ranking “Three University Missions” (MosIUR). In the experimental activities, the results of the monitoring study of the participation of Russian universities in MosIUR that have the required validity and are an adequate tool for scientific assessment of changes were used. The study identified and confirmed that international rankings use different source bases for similar indicators. In the TNE ranking, the assessment of the citation of scientific works is carried out according to the international scientometric database Web of Science, while the QS ranking uses the citation index of scientific publications of teachers from the scientometric database Scopus. A monitoring study of the effectiveness of the participation of Russian universities in the MosIUR ranking for 2018–2020 shows the high activity of universities. The analysis of strategies and programs for the development of pedagogical universities included in the MosIUR ranking showed the orientation of universities to solve intra-sectoral problems and consider regional specifics. It has been established that, for pedagogical universities, it is becoming significant to reorient from institutional rankings to subject and branch ones, which measure the international reputation of an educational institution in a particular subject branch. The results of a monitoring study in 2017–2021 showed a low probability of achieving indicators of international rankings ARWU, THE, QS (including the subject ranking “Education”) for Russian pedagogical universities. The most promising for pedagogical universities may be the Moscow International Ranking “Three University Missions”, as well as the use of the experience of leading research universities of the TOP 5–100 project, which occupy high ranks in international rankings – HSE (QS subject ranking “Education”) and KFU (THE, subject ranking “Education”).

Keywords: international ranking, pedagogical university, QS, THE, ARWU, MosIUR, monitoring study

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Introduction

When dealing with challenges from modern society, the system of higher education has to rebuild itself and shift the emphasis to the training of specialists. The activities of specialized universities are no exception. Pedagogical higher educational institutions are under even closer attention, as they ensure the implementation of the strategic task of the Russian Federation – the training of personnel for the entire system of Russian education.

According to experts, the training of teachers does not keep up with the modern requirements of educational standards, and higher education has become “universal” but lost its quality. In the countries leading in the development of the knowledge-based economy (Great Britain, Singapore, Germany), according to BCG, in recent years there has been an active revision of the content of education with a shift in emphasis from obtaining subject knowledge to the development of universal “skills of the XXI century” [1]. The study [2]

showed that 91% of Russian employers consider the formation level of practical skills among university graduates insufficient. Over 25% of graduates get excessive education [2].

However, studies that relate to the development and management of Russian pedagogical education are still poorly updated. The results of the analysis of dissertation research in pedagogical sciences over the past ten years show the relevance and interest in the issues of personnel training in pedagogical universities and the interaction of pedagogical universities with educational institutions of various levels.

Today, it is possible to point out several challenges that need to be met by the system of pedagogical education in general and pedagogical universities in particular: digitalization of education, internationalization of the national system of higher education; organization of world-class research; participation in projects, programs and international professional associations [3]. The problem of internationalization of Russian pedagogical education is central, when the solution to all other identified problems will contribute to the “recognition of universities” on the global education market.

Over the past ten years, the Russian system of higher professional education has made a breakthrough in the work of foreign ranking agencies. This is because of the systematization of work on the international assessment of the activities of universities. Such a directional movement was facilitated not only by the reform of the higher education system but also by state projects and programs [4, 5], focused on achieving the quality of education corresponding to the world level. According to these documents, the benchmarks are the Academic Ranking of World Universities (ARWU), Quacquarelli Symonds World University Rankings (QS), Times Higher Education World University Rankings (THE).

For the first time, the problem of “getting pedagogical universities of Russia into global rankings” was actualized in 2017 in a study by V.M. Ananishneva, S.V. Yugay and A.P. Ovsov [6]. The authors defined pedagogical universities as educational institutions that do

not have a dominant focus in their activities but train specialists in a wide range of disciplines [6]. Later, additional studies [3, 7], which expanded and described the possibility of international ranking of pedagogical universities, were published. In their studies, N.L. Antonova and A.D. Sushchenko [7] emphasized that universities use different strategies for promotion in international rankings. Taking the materials of the study into account [7], we can conclude that the universities included in the QS, THE and ARWU rankings are focused on the integration into the global academic community, increasing their competitiveness with the prospect of obtaining a place on the world-spanning educational market.

A more detailed analysis of the strategies of Russian universities, conducted by N.G. Skvortsov [8], identified one of the main conditions for the development of the national education system – globalization. The results of implementing development strategies of universities aimed at achieving the level of world standards in education, research, and development have been generalized. They made it possible to reflect changes in implementing development strategies for universities. As shown in the study, “the emphasis shifts towards the promotion strategy in disciplinary (subject) rankings” [8]. Therefore, it can be assumed that, for Russian pedagogical universities, there is an opportunity to expand the sphere of influence outside the national education system.

In the initial assessment of Russian universities, the problem of entering international rankings was solved through effective management mechanisms. However, a detailed study of the ranking indicators and the assessment methodologies applied showed that international rankings use different source bases, with the apparent similarity of indicators. For example, in the TNE ranking, the assessment of the citation of scientific works is carried out according to the international scientometric database Web of Science, while the QS ranking uses the citation index of scientific publications of teachers from the scientometric database Scopus (Table 1).

Table 1

Characteristics of international rankings

Characteristics of rankings	ARWU	THE	QS	MosIUR
The year of the first publication of the ranking	2003	2004	2010	2017
Categories (the number of indicators)	4 categories (6 indicators): Quality of education (10%). Qualification of employees (40%). Achievement in the field of scientific research (40%). Total scientific productivity per employee (10%).	5 categories (13 indicators): Educational infrastructure (30%). Reputation of scientific research (30%). Citation of scientific works in WoS (30%). Financial revenue from innovation (2,5%). International prestige of the university (7,5%).	3 categories (6 indicators): Scientific activities of the university (60%). Ratio of students to teachers (including foreign teachers and students) (30%). Reputation of the university from the position of employers (10%).	3 categories (16 indicators): Group “Education” (45%). Group “Science” (25%). Group “University and Society” (30%)
Source bases	WoS (Nature and Science journals only)	WoS	Scopus	WoS, Scopus

The Moscow International Ranking “Three Missions of the University” (MosIUR) can be considered the “youngest” and the most different from all the rest. The Russian Union of Rectors and the Russian Academy of Sciences started the development of MosIUR. Its main aim was an adequate assessment of (1) the real quality of knowledge of graduates, (2) the introduction of advanced teaching methods, and (3) the characteristics of national pedagogical and scientific schools. The principal difference of this ranking is the quantitative indicators uniformly measured in the areas of “Education”, “Science” and “University and Society”.

Methodology and methods for research

The methodological basis of experimental work comprises ideas about the monitoring research in education as a technological and methodological apparatus for measurement, evaluation and design of management activities, and getting information characterized by completeness, objectivity, concreteness, timeliness, novelty and efficiency [9]. The study used the method of analysis of open data sources, a survey of experts (working at HSE, KFU), the technique of semi-structured interviews. The empirical basis of the study was the analysis of data from the international rankings QS, ARWU, THE (including the subject ranking “Education”), and MosIUR.

Summarizing the materials of the monitoring study, we can fix that for five years, there has not been a remarkable breakthrough by pedagogical universities – they are still little recognizable abroad. The results of the studies [3, 6] confirm the low probability of getting pedagogical universities into the ARWU, THE and QS rankings. However, it is important to pay attention to the leading research universities and their indicators in the subject ranking “Education”.

The methodology of subject rankings is similar to the total ones. In 2019, in the subject ranking THE “Education”, Lomonosov Moscow State University ranked 201–250, Tomsk State University ranked 401+. For the first time, St. Petersburg Polytechnic University (rank 301–400) and the Ural Federal University (rank 401+) were included in the rating. The data of 2019 show that the highest growth of indicators in the THE subject ranking “Education” was shown by Kazan (Volga Region) Federal University (KFU) – 101–125. In 2020, KFU entered the first hundred of the THE subject ranking and became the 90th. According to respondents, entering the hundred of the best universities proves to be the result of systematic and purposeful work of the university team of specialists in pedagogical education. The growth in the THE subject ranking “Education” is directly related to the allocation of teacher education in one of the four priority areas of development of KFU – along with medicine, oil production and astrophysics (A. Kalimullin, director of the Institute of Psychology and Education of KFU). In addition, in 2011, KFU included two pedagogical universities in it and began to develop systematically the pedagogical direction, which, at present, is formalized in its infrastructure as a priority direction for the

development of KFU – “The Teacher of the XXI Century”.

The results of the comparative analysis [11] of the participation of Russian and Chinese universities in ARWU 2020 showed that the ranking included 11 universities in Russia and 168 universities of the PRC. Of all Russian universities that are the participants of the project TOP 5–100, Moscow State University has the highest position (93). Eight Chinese specialized pedagogical universities took part in ARWU. The East China Normal University holds the highest place in the global ranking – 401–500. There were no Russian universities in the ARWU subject ranking “Social Sciences: Education” in 2020, but there were 8 Chinese universities there. The highest rank is 54, of the University of Education in Hong Kong. In the global ranking of ARWU, this university is in the 801–900 group. A specialized university – National Taiwan Normal University ranks 51–75 (901–1000 in the global ranking). East China Normal University is included in the 201–300 group of the subject ranking.

The QS international subject ranking seems to be the most promising for Russian universities. Judging by the dynamics of the entry of universities, the most significant growth by years is recorded here in 2020 (36 universities, of which 15 are participants in the project TOP 5–100) and in 2021 (40 universities; 16 participants of the project TOP 5–100). Since 2018, the QS Education subject ranking has consistently included three Russian universities, participants in the TOP 5–100 project: HSE, Moscow State University, KFU. HSE showed the most significant growth in the subject ranking. In 2018, this university was part of the 251–300 group; in 2021, it became the 64th. A significant contribution was made by the indicator “reputation among employers” (over 80 points out of 100). As I.D. Frumin noted [12], the citation of academic publications and the reputation of the university among experts in education ensured the high performance of the university in the subject ranking “Education”. The demand for research that is integrated into the world’s scientific agenda explains the growth achieved over three years.

The analysis of the effectiveness of the ranking of Russian universities in international ratings showed the need to take part in international research and, as a result, an increase in the number of publications in the world databases of WoS and Scopus. During participation in the project “TOP 5-100”, the leading research universities have significantly increased the number of articles in international citation databases and are promoting the internationalization of Russian scientific journals (Table 2).

A monitoring study to assess the effectiveness of including the periodicals of Russian universities in international citation databases showed that, according to the data for September 2020, the RISC in the profile “Public Education. Pedagogy” registered 9 journals indexed in WoS and 12 journals indexed in Scopus. Four pedagogical universities are the founders of journals indexed in international scientometric databases: the journal *Psychological Science and Education* (WoS and Scopus) of Moscow State University of Psychology and Pedagogy, the journal *Education and Science* (WoS and

Scopus) of Russian State Vocational Pedagogical University, the journal *Science for Education Today* (Scopus) of Novosibirsk State Pedagogical University, the journal *Media Education* (WoS) of Taganrog State Pedagogical Institute named after A.P. Chekhov. Data from September 2021 show an increase in the number of journals indexed in Scopus and WoS: 10 journals in WoS and 15 journals in Scopus. The increase in the number of publications indexed in international scientometric databases can be explained by the participation of the leading research universities-participants of the project TOP 5–100. Among the pedagogical universities, it is

necessary to note the work of Moscow State Pedagogical University. Its journal *Musical Art and Education* is included in Scopus. The journal *Science for Education Today* (Scopus) of Novosibirsk State Pedagogical University is excluded from the international citation database Scopus.

A monitoring study of the effectiveness of the participation of Russian universities in the MosIUR ranking in 2018–2020 showed a high activity of universities. Every year, there is an increase in the number of universities, including those of a pedagogical profile (Table 3).

Table 2

The number of indexed journals in leading research universities

University	The number of journals indexed in:			
	Scopus		WoS	
	September 2020	September 2021	September 2020	September 2021
Kazan (Volga Region) Federal University	4	4	3	4
Novosibirsk State University	4	2	2	1
Tomsk State University	11	12	18	18
Higher School of Economics	12	13	14	14
Ural Federal University	4	7	6	6
Peoples' Friendship University of Russia	2	5	4	3
Siberian Federal University	3	4	2	3
South Ural State University	3	3	2	2

Table 3

The results of participation of Russian universities in the Moscow International Ranking

Year	Number of Russian universities	The rank/highest rank/universities	Number of pedagogical universities	Share of pedagogical universities, %	Name of the university	Rank
2018	17	23 Moscow State University	0			
2019	73	22 Moscow State University	2	2,7	Herzen State Pedagogical University of Russia	1101–1200
					Moscow Pedagogical State University	1101–1200
2020	101	21 Moscow State University	3	2,9	Herzen State Pedagogical University of Russia	1101–1200
					Moscow Pedagogical State University	1101–1200
					Tomsk State Pedagogical University	1401–1500
2021	112	19 Moscow State University	3	2,7	Herzen State Pedagogical University of Russia	1201–1300
					Moscow City University	1301–1400
					Moscow Pedagogical State University	1301–1400

For the first time, pedagogical universities were included in the Moscow International Ranking in 2019. Herzen State Pedagogical University of Russia and Moscow State Pedagogical University entered the 1101–1200 group. In 2020, the MosIUR selected 101 Russian universities. Three Russian pedagogical universities were evaluated in the ranking: the 1101–1200 group – Herzen State Pedagogical University of Russia, Moscow City University, the 1401–1500 group – Tomsk State Pedagogical University. In 2021, the total number of Russian universities selected for the ranking increased. The total number was 112 educational institutions. The number of pedagogical universities did not change. However, we should note a decrease in the rank group of all pedagogical universities and the exclusion of Tomsk

State Pedagogical University. For the first time, Moscow City University took part in the ranking in the 1301–1400 group.

The share of pedagogical universities in the total number of Russian participants remains stable at 3%. And yet it is hard to make a forecast because of the short observation period. The decrease in the rank groups of pedagogical universities is alarming, while universities-participants in the TOP 5–100 projects and the Priority 2030 program consistently show an increase in rank in MosIUR.

To clarify the importance of the pedagogical profile of the university in the MosIUR ranking, we carried out a comparative analysis of the results of the participation of Russian and Chinese universities in 2021. The total

number of higher education institutions in China is 144, of which 9 were pedagogical universities (6.3%). The share of Chinese pedagogical universities is twice as high as that of Russian universities. The highest rank occupied by a pedagogical university in China is 214 (East China Normal University). Six universities occupy ranks up to 1000: Northeast Normal University (551–600), Shanghai Normal University and Huazhong Normal University (601–650), South China Normal University (701–800), Hangzhou Normal University (801–900), Shaanxi Normal University (901–1000). Jiangsu Normal University is in the 1201–1300 group, and Hunan Normal University is in the 1301–1400 one. The high ranks of Chinese pedagogical universities show that China's state policy is focused on the international education market. High rates are achieved because of the international recognition of academic degrees, the results of research published in high-ranking journals, etc. Previously conducted monitoring studies [13] and a comparative analysis of Russian and Chinese universities [11] enabled us to conclude about solving the problem of global competitiveness of universities and extrapolate these data to the effectiveness of the participation of Russian and Chinese pedagogical universities in the MosIUR ranking. Chinese pedagogical universities show positive dynamics (an increase in ranks and the number of universities) in the MosIUR ranking. This is determined by the state program for the development of Chinese universities, which is implemented through the support of ARWU and the national platform of scientific journals, compatible with Web of Science and Scopus. Similar mechanisms for promoting Russian pedagogical universities according to the MosIUR ranking show us negative dynamics (a decrease in the rank group and the share of universities).

Having analyzed the strategies and programs for the development of pedagogical universities, which were included in the MosIUR ranking, we can argue that they are

more focused on solving intra-branch problems, considering regional specifics. However, if we consider the management decisions of the national education system, we can state that it becomes significant for pedagogical universities to reorient from institutional rankings to subject and branch ones, which measure the international reputation of an educational institution in a particular subject branch.

Conclusion

Pedagogical universities have always played a particular role in the developing Russian educational system. However, the results of the monitoring study of 2017–2021 showed that for such universities, the achievement of indicators of international rankings ARWU, THE and QS (including the subject ranking "Education") is currently impossible. The leading research universities (especially the participants of the TOP 5–100 project), which maintain the profile of pedagogical training and develop it actively, prove to be promising. The systematic work of universities contributes significantly to the recognition of the universities to include their journals in the international citation bases of WoS and Scopus.

The monitoring study made it possible to establish that the global educational market considers in its development the information received from international ranking agencies. Thus, pedagogical universities need to take this into account when working out their development programs. The most promising for universities of pedagogical profile may be the Moscow International Ranking "Three University Missions". Promising for pedagogical universities is the use of the experience of leading research universities of the TOP 5–100 project, which occupy high ranks in international rankings – HSE (QS subject ranking "Education") and KFU (THE subject ranking "Education").

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