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**MODERNISATION
OF EDUCATION
AND RESEARCH IN RUSSIA,
POLAND AND LITHUANIA:
A COMPARATIVE ANALYSIS**

This article compares the dynamics, content and character of education system modernisation in Russia, Poland, and Lithuania. It is shown that the education systems of Russia, Poland, and Lithuania differ substantially in the secondary and higher education structure, sources of financing, and strategic development directions.

Key words: modernisation, education structure and organisation, international integration.



In recent decades, Europe is undergoing profound social and economic changes that have a dual impact on the education. On the one hand, reforms in the economy and society entail changes in educational environments. On the other hand, social and economic changes require new quality and quantity of human capital, which is possible to achieve only through the modernization of education.

Thus, the transition to an innovative and socially-oriented type of economic development in Russia requires a systemic solution of problems of both catching up and advanced development. In global competition and an open economy a new mechanism of social development based on balanced entrepreneur freedom, social justice and national competition requires first and foremost improving the competitiveness of human capital and related social sectors. Such a capital must be ensured by an open possibility to get quality education, the transition from a system of mass education, which is typical for the industrial economy, to continuing education, educational development, which is inextricably connected to the world fundamental science, and focused on the development of a creative, socially responsible individual.

It is also noteworthy that the European education enters a qualitatively new — stage international integration, with the potential to approach more closely and complement to national education systems of different countries, to make the education processes more consistent, to develop the national education systems beyond the national boundaries and to set the trend for shaping a unified educational space as the most effective form of implementation of tasks of the future of Europe.

Given that it becomes relevant to conduct a comparative analysis of education and science of neighboring countries bordering on Russia in the west — Poland and Lithuania. This analysis will outline the prospects for further cooperation and integration processes in the field of education and science. The comparison of the structure and organization of secondary and higher education and their strategic development are presented in Tables 1 and 2.

Table 1

Comparison of the systems of secondary education

Country	Term of study, years	Final exams	Final assessment	Variability of the content
Russia	4 + 5 + 2	2 + optional	External (national exam)	+
Poland	6 + 3 + 3	2 + 1 optional	Internal (Tests) + external (exam)	+
Lithuania	4 + 5 + 2 4 + 6 + 2	7	Internal + external (national exam)	+

As it can be seen from Table 1, the main formal difference between Russian complete secondary education from Polish and Lithuanian ones is its shorter term of study (11 years). Variability of content and assessment of learning outcomes do not differ.

Some differences were observed in the structure of higher education (Table 2). In all three countries the majority of students are enrolled in public schools. In Poland their share is over 65%, in Russia and Lithuania — 80%. The duration of term of study on some particular levels of higher education is different. With few exceptions, the university degree certificate in Russia and Lithuania is a state diploma, whereas all Polish universities issue a diploma with the European appendix, which increases the graduate mobility in terms of continuing education and further employment.

Table 2

Comparison of the systems of higher education

Country	Correlation of public and private universities	Entrance requirements are set by...	Degree certificate	Tiers and terms of study
Russia	662/1134	State	State certificate	Bachelor — 4 Master — +2 Specialist — 5—6 Post-graduate — 3—4 PhD student — 5
Poland	132/458	University	State certificate, European appendix	Bachelor — 3 Master — +2 Licentiate — 1,5—2 Engineer — 4 PhD student — 3—4
Lithuania	22/14	University	State certificate	Bachelor — 4 Master — +1—2; Specialist — 5—6 Post-graduate — 2 PhD student — 3

An analysis of some statistical indicators enables to make some comparisons. Thus, all three countries are characterized by high number of students per 10 thousand inhabitants. This indicator is the highest in Lithuania, followed by Poland and Russia (Fig. 1).

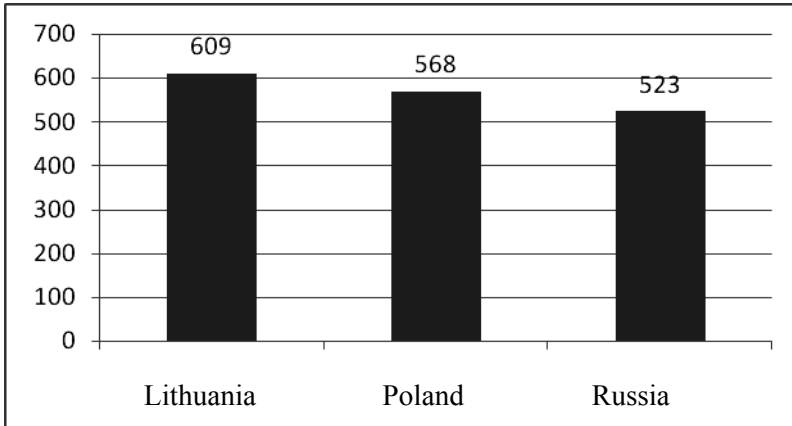


Fig. 1. University students per 10 000 people in Lithuania, Poland and Russia, 2008 [6; 15; 16]

The dynamics of public funding is positive in Poland, Lithuania and Russia. However, in Russia in recent years have shown the most intensive growth of funding allocated for the system of higher education (Fig. 2).

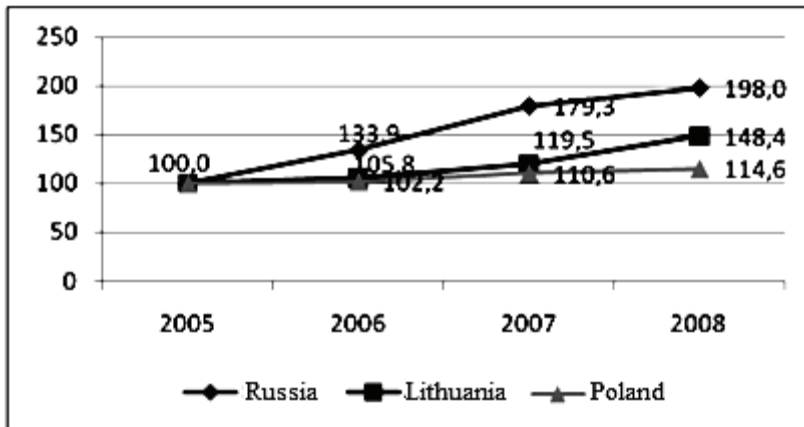


Fig. 2. The dynamics of public funding allocated for the system of the higher education in Russia, Lithuania and Poland, 2005—2008 (% of GDP) [10; 11; 14; 16; 19]

Comparison of the nature and mechanisms of education systems modernization in Poland, Lithuania and Russia shows some differences. The major difference relates to the degree of state involvement into the



organization of higher education. Thus, less than a third of Polish universities are public, while in Lithuania and Russia they make up more than a half.

Poland is significantly oriented towards the market model of vocational education, based on autonomy and financial independence of educational and research institutions.

Among the strategic areas for the development of education system in Poland the priority is given to sustainable transport and agriculture, energy security and the environment, national security, etc. But Though now they are not among the most popular fields of training for the young people as well as occupations for some other leading sectors of Polish economy in terms of their share in GDP (for example, a catering and hospitality complex). Such fields as economics and management, sociology, pedagogy and medicine are top ranked in Polish universities [16, 17].

Modernization of the Polish system of education is almost fully complies with the Bologna Declaration and the Lisbon Recognition Convention (The Convention on the Recognition of Qualifications concerning Higher Education in the European Region): the two-tier education system is universally introduced, as well as European system of credit transfer (ESCT), European appendix to the university degree certificate, public and student participation in university management and quality assurance, etc.

Polish education system does not currently have high ratings on the international level [18, 20], but the pace of development, investment at all levels of education, its accessibility and support of the EU can envisage successful achievement of all the strategic goals set for Polish education system.

System of education and research of the Republic of Lithuania has got a twenty-year experience of modernization, which has an explicit anti-Soviet tinge, though it has a much lower potential than Poland (there are 22 universities in Lithuania compared to 458 universities in Poland), and is characterized by contradictory tendencies.

Current priorities include raising the level of support to education and upbringing of children and youth, rationalization of the network of education institutions and education expenditures, focusing on the labor market demands. The rating of popular fields of knowledge is also hardly connected with the structure of economic sectors in terms of their contribution to the GDP of Lithuania. Tuition fees are generally lower than in Poland, the financing of education and research is concentrated in several university research centers [13, 14, and 15].

Over the past 10 years in Lithuania, the proportion of students relative to the size of population has increased by 60%. At the same time upgrading the education system of this country goes in line with European guidelines and is supported by foreign investment [11, 14, and 19]. Recent reforms, changing the status of educational institutions and differentiated approach to funding have led to a reduction in budget places in universities to 10%, which is inconsistent with the declared reform priorities in terms of access to education. In general, the changes which have been introduced to the functioning of the Lithuanian education system now have structural and functional character.



Comparing the content, pace and nature of the modernization of education in Poland, Lithuania and Russia, we can note that a change in the socio-economic policy affects the mechanisms of monitoring educational institutions. Recent Russian reforms shifted most of the educational and research institutions in the status of autonomous non-profit organizations, and thus introduced new management strategies and funding tools. At the same time they introduce the European system of quality assurance, credit transfer and two-tier system of higher education. State support for education and research is concentrated in several dozens of universities, which hold a special status.

Summing up, we note that the formal structure and principles of functioning of education systems in Russia, Poland and Lithuania are gradually moving closer, despite the national specific features in the content of education and the differences in development strategies.

The fundamental difference of modernization processes lies in funding sources: Poland and Lithuania are reforming it with the support of the EU, while Russia is upgrading the educational system at its own expense.

Behind the above differences in external characteristics and mechanisms of the development of education systems in Poland, Lithuania and Russia there is a profound qualitative transformation of existing systems, which becomes the core of modernization: changes in values, goals and objectives of education, criteria and methods of evaluating its results, the mechanisms of functioning and financing of education, etc. Therefore, the most significant difference between the education systems is the vector of modernization. Russia in this respect is more ambitious: the changes in education and research must ensure the innovative breakthrough in the economy, the development of priority fields of research, technology and engineering (the industry of nano-systems and materials; information and telecommunication systems, biotechnology, etc.). Given this, the changes have the character of a system — institutional innovative advanced strategy that can provide for the technological modernization of the economy, increase its competitiveness on the basis of advanced technologies and the transform educational and research potential in one of the major resources for sustainable economic growth.

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