

*Materials of Conferences*

**INFLUENCE OF HYGIENIC ORGANIZATION  
OF A LESSON ON THE KNOWLEDGE'  
STANDARD OF THE GYMNASIA STUDENTS  
BY THE EXAMPLE OF THE FOREIGN  
LANGUAGES' DEPARTMENT**

Bukatin M.V.<sup>1</sup>, Ovchinnikova O.Y.<sup>1</sup>,  
Krivitskaya A.N.<sup>1</sup>, Nikitin S.A.<sup>1</sup>, Chernikov M.V.<sup>1</sup>,  
Lunev A.A.<sup>1</sup>, Pcholina A.I.<sup>2</sup>  
Volgograd State Medical University<sup>1</sup>  
Gymnasium #13, Traktorosavodsky district  
of Volgograd city<sup>2</sup>  
Volgograd, Russia

Health care technologies in education mean to create the conditions, the package and the system of activities that provide health care educational sphere, conditions to preserve and strengthen pupils' health, to form value of health and healthy way of life, that is the essential, harmonic part of the organization of the process of education and upbringing students of the gymnasium # 13 of Traktorosavodsky district of Volgograd city<sup>2</sup>.

Except traditional forms of activities, which contribute to the preservation and strengthening health, other approaches are used in the gymnasium. They are based on the idea that conditions of upbringing and education of kids and teenagers, which correspond to modern conceptions of health care technologies, contribute greatly not only to the process of forming of their health but is one of the ways to increase effectiveness of education and its quality.

The members of the foreign languages' department use to conduct monitorings of the effectiveness of using health care technologies in the process of education. Monitoring consists of three stages:

1. Dynamic analysis of lessons by the original form "Registration of the use of health care technologies" (RUHT), that consists of 14 points of evaluation of hygienic organization of a lesson, from the point of view of the pupils' health protection.

2. Exposure of the correlated dependence of the level of using health care technologies and students' level of knowledge. The percentage wise of the integral data of the form "RUHT" and the quality of knowledge are compared, i.e. the number of marks "4" and "5" that pupils get at the lesson are taken into consideration.

3. Correction of the process of education as a result. The work is lead individually with the teachers to improve their pedagogical activity aimed to develop using health care technologies.

The effectiveness of the work is tested be the following inspections of the lessons.

Comparative analysis of the lessons in different grades and different teachers allows to making the following conclusions:

1. There exists direct correlative dependence between the level of hygienic rationalization of a lesson and the level of students' knowledge – the more points the lesson is given for hygienic rationalization, the higher quality of knowledge is;

2. As a result teachers begin to think about the necessity of taking into account operation facts of hygienic rationalization of lessons and followed them;

3. Taking into account operation facts of hygienic rationalization of lessons helps teachers to improve the process of teaching and increases level of students' knowledge.

The work was submitted to VII international scientific conference «Modern providing educational process», Mexico (Acapulco), 2-14, March 2009, came to the editorial office 12.02.2009.

**FORMATION OF FEDERAL UNIVERSITIES AS  
CONDITION OF INTELLIGENCE CAPACITY  
BUILDING IN RUSSIA**

Sinitskaya N.Ya., Stepanov V.V.  
Pomor'ye State University named after  
M.V. Lomonosov  
Arkhangelsk, Russia

A course to a sustainable development based on the innovation economy, on the one hand, and priority of the social policy, on the other hand, has been chosen in Russia. The objective to come into the five of the largest economies of the world, the top nations in terms of GDP volume (at purchasing power parity) by 2015-2020 has been assigned in the economic domain; in social decisions – to pass to a breakthrough social policy – the social development policy oriented to the human development.

For a successful realization of the selected development vectors the intelligence priority capacity building on the basis of science, education and production alliance is necessary. Federal Universities, the network of which should be formed in accordance with the RF President Edict, are called to put this integration into effect.

It is the Federal Universities that can be engaged in a sound scientific, scientific and technological, innovative, patent and license, inventive and educational activity, carry out the experimental developments and tests.

On the logic of the steps undertaken by the government one can come to the conclusion that Federal Universities are created to solve nationwide strategic problems, to satisfy national social and economic needs; Federal Regional Universities are called to solve problems of the regional level, and a network of other retained HEIs, having passed into the rank of municipal or autonomous ones, will mainly satisfy the

present needs of the population in higher vocational education.

If we analyse the Federal Universities list including the universities created within the framework of the National Priority Project "Education" (the Siberian and Southern Universities) and being created pursuant to the Presidential Edict (the Far Eastern University), it may be concluded that Russia builds "intellectual outposts" on its borders.

For a successful realization of the long-term development strategy of Russia the necessity of sustainable spatial development has been defined for the first time ever: "New territorial growth branches will be formed both in the areas of new raw material resources and traditional regions of industrial and agrarian potential concentration of Russia". So, a further formation of the Federal Universities network is advisable to be continued in the North.

Very often, when quoting our famous fellow-countryman M.V. Lomonosov's statement "... Russia's might will grow with Siberia and the Arctic Ocean...", the last words are omitted – "the Arctic Ocean, which means the North in the wide sense of the word".

Northern Territories play a key role in the national economy, in providing security and geopolitical interests of Russia. The North of Russia possesses the richest natural-resources potential, which is made up of land, water, forest and various mineral resources first of all. The hydrocarbon reserves explored at the present time in the Arctic Ocean seas will, according to the specialists' research, be sufficient for 250 years. The unique mineral resources field reserves in the Arctic continental shelf of Russia allow speaking about them as the foundation of accelerated economic development of Russia in XXI century.

But the North – is 2/3 of Russian territory. That is why, to our opinion, a single "intellectual outpost" is insufficient here. So, we substantiate the necessity of creating the North-European Federal University together with the Northern University in Archangelsk.

#### Why Archangelsk?

Right from here the development of the Arctic sea and Arctic Regions were conducted. Archangelsk has a profitable strategic and position letting a direct travel to the Arctic. The Arctic is the "kitchen of weather" – a unique nature laboratory, the research of which allow forecasting the climate of the Earth, providing the air and sea fleets (inclusive of submarine force) communications and navigation. The Arctic – is the only region on the planet, where there is a direct travel to three oceans all at once: the Arctic, Atlantic and Pacific oceans. Right here Russia provides itself the shortest safe straitless travel to the World's water.

Today, like in the 50's, is the time to start developing the Northern Sea Route all over again. Colossal oil and gas deposits are opened in the shelf area of the Arctic Ocean. The largest of them – Stockman

gas-condensate deposit, Prirazlomnoye oil field and a range of coastal ones – start already being developed. These fields will define the socioeconomic development of the North and Russia as a whole for the nearest 25-50 years.

The delivery to the fields of floating ice-resistant platforms, ice-breaker support for tank ships' and liquid gas carriers' navigation, transportation of people, equipment, foodstuffs, fuel and many other things to the platforms and weather stations are needed for their development.

On the experts' estimate, to provide such a production level in the shelf area, to prepare and transport of production it will be necessary about 100 000 of specialists from geologists to ecologists, from seamen and dockers to hydrometeorologists prepared to wintering in the Arctic.

Experts are also required for developing other potential resources of the North – diamonds, bauxites, mineral coal, non-ferrous metals.

The training of highly-qualified personnel of technical and engineering profile for the MIC enterprises needs a special attention. The military-industrial complex of the Archangelsk Region includes such objects of federal value as the Russian State Center of Atomic Shipbuilding, "Plesetsk" launch area, "Novaya Zemlya" providing ground. They are unique enterprises using the most advanced and high technologies.

Ecological problems also acquire a special value in our region. Right in the North of Russia the planet natural ecosystems' largest massif, which serves a reserve of the biosphere sustainability, has retained. To solve the environmental issues common to the North of the European Continent (and other territories of the globe, as well) and protect particularly vulnerable boreal environmental conditions the organization of constant ecological-sociological-and-economical monitoring, according to expert opinion, is necessary. It is classical universities, where all the three specified lines have been developing for a long time and are organic components of the scientific-educational complex, that are most prepared to its realization.

Also the internal links are traditionally strong in our Region, with our Scandinavian neighbors, first of all. Archangelsk, founded more than 420 years ago, turned into a peculiar "window to Europe" for Russia (and for Europe it has become a "door to Russia").

During the post-Soviet period it was the Archangelsk Region that was one of the originators of the Barents-cooperation. And this is not by accident. Business and cultural relations between the dwellers of the Northern Territories, which today form the Barents-region, had been existing for thousands of years. The Conference of the Barents Euro-Arctic Region countries on the development of education and science was held in April, 1993. In 2003 the Archangelsk Region was acknowledged to be one of the pilot regions

in realization of the Bologna Declaration principles taking into account the BEAR-cooperation good results in the scientific and educational sphere. Today, the leading HEIs of the Region have cooperation agreements with more than 50 foreign universities from 20 countries, they conducting more than 60 scientific and educational projects.

The intensive international cooperation is extremely relevant for the formation of a federal university. For, it is no coincidence that among the selection criteria for the universities supported by the government the research and development activity volume

per one instructor and also the scale of international programs are mentioned in the RF Socio-Economic Development Forecast General Parameters up to 2020-2030.

The total scientific potential of the main state universities of Archangelsk is also sufficient to form a federal university. Qualitative characteristics of the faculty concerning the share of diplomats correspond to the accreditation parameter of universities. The current situation in three Archangelsk HEIs is represented in table 1.

**Table 1.** Number and structure of regular lectures (according to the data from the 3-HK form, 2007)

Qualitative composition of lecturers	HEI		
	PSU named after M.V. Lomonosov	ASTU	NSMU
Regular lecturers Total (persons)	548	515	403
Among them:			
Dr. Sc. (persons)	54	49	72
Cand. Sc. (persons)	283	273	198
Share of Dr. Sc. (%)	9,85	9,5	17,9
Share of Dr. and Cand Sc. (%)	61,5	62,5	67

Note: composed from the data:

[http://www.edu.ru/vuz/list/483/prep\\_kont.php?isn=483&ter=11&okpo=02079201](http://www.edu.ru/vuz/list/483/prep_kont.php?isn=483&ter=11&okpo=02079201)

[http://www.edu.ru/vuz/list/26/prep\\_kont.php?isn=26&ter=11&okpo=02068019](http://www.edu.ru/vuz/list/26/prep_kont.php?isn=26&ter=11&okpo=02068019)

[http://www.edu.ru/vuz/list/25/prep\\_kont.php?isn=25&ter=11&okpo=01962988](http://www.edu.ru/vuz/list/25/prep_kont.php?isn=25&ter=11&okpo=01962988)

The research and development activity volume in the Archangelsk state technical University (ASTU) in 2007 made 51 million rubles or more than 99 thousand rubles per one teacher. In the Pomorsky state University (PSU) named after M.V. Lomonosov these parameters make accordingly 38 million rubles or more than 69 thousand rubles per one teacher. The research and development activity volume in the Northern State Medical University (NSMU) is relatively lower and made in 2007 12,5 million rubles or a bit more than 31 thousand rubles per one teacher.<sup>1</sup>

The creation of a federal university will allow bringing the runoff of youth from our Region to stop and attracting applicants from other regions and republics, and also from the former USSR countries. It is of urgent interest as the demographic situation of the Archangelsk Region and other regions of the European North is characterized by the decrease in human resources and high natural and migratory decrease. Beginning with 1989, the number of legal population of the Archangelsk Region inclusive of the Nenets Autonomous District, decreases annually by 1%. The runoff of able-bodied citizens beyond the

European North regions – is an unallowable human potential loss narrowing the development prospects of the Northern Territories and geopolitical interests' realization of Russia down.

And one more convincing reason. In 2011 not only Russia, but also the whole world, will celebrate the 300<sup>th</sup> birthday anniversary of our genius fellow-countryman encyclopedist-scientist M.V. Lomonosov. And the best memorial for him seems to be the creation of the Federal University named after M.V. Lomonosov in Pomorye.

The North-European Federal University can be created by the transformation of the three state universities located in Archangelsk in the form of joining the federal university. All the academic scientific institutes of the Region (NorthMachHTEI located in Severodvinsk and Archangelsk Branch of the Marine Academy named after Makarov) should also be included into the created scientific-and-educational complex. Then, a powerful regional educational, scientific and cultural center able to provide the promising orientations of the European North socio-economic development with local skilled workers will be created.

It is advisable initially to form the organizational framework of this university on the ground of separation of specialized institutes such as Pedagogical, Medical, Engineering-and-Technical, Oil-and-Gas, So-

<sup>1</sup> The indicator of research activity per one teacher was calculated by us not on the basis of the faculty wage number, but on the number of lecturers according to the 3-HK form data - <http://www.edu.ru/vuz/list/25/>

cial and Humanitarian, Marine ones, the institutes of Information Technologies, Economics and Management, Northern Territories and Scandinavistics.

The integrating efforts of HEIs and academic science would give a higher return, having allowed concentrating the resource potential. First, this concentration of the resources is necessary to create the implementation and consulting infrastructures of the university, such as Consulting Centers or Centers of Technologies' Transfer. Organization Departments involving students into research-and-development activities should also be created: student business incubators or preincubators. An assembled structure organizing the employment of students and graduates, their adaptation to the regional labour market is also necessary in a federal university.

For the present-day effective development of the Northern Territories not only production technological innovations are necessary, but social innovations as well, the appearance of which is possible within a multiple-discipline university only. The innovative social technologies are necessary to form and develop the social potential of the North, where, by virtue of multiple-factor inhabitation discomfortness manifestation, a complex social situation and unfavorable demographic tendencies develop and where native minorities with their traditional way of life live.

One more privilege of a united federal university becomes an opportunity to accumulate supplementary estimates to strengthen material resources, technical equipment and program and methodological support of educational, research and innovative activities. The experience of the first two federal universities testified that their consolidated budgets increased by percents, but many times. Thereat, the supplementary budgetary financing created a multiplicative effect as it stimulated the co-financing of the universities on the part of private business structures.

Thus, the creation of the North-European federal University will allow grouping resources to pass to a new university functioning model; will change it from a traditional scientific and educational organization into a regional development innovation center of its location. The considered transformations, in their turn, will become a guarantee of success of the strategic objective of leveling the interregional differentiation and providing a sustainable territorial development of Russia.

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The work was submitted to international scientific conference «Modern education. Problems and solutions», Thailand – Cambodia, February 18-28, 2009, came to the editorial office 11.12.2008.