



DEVELOPMENT AND METHODOLOGY OF NATIONAL SCIENTIFIC SCHOOLS AND EDUCATION IN AZERBAIJAN

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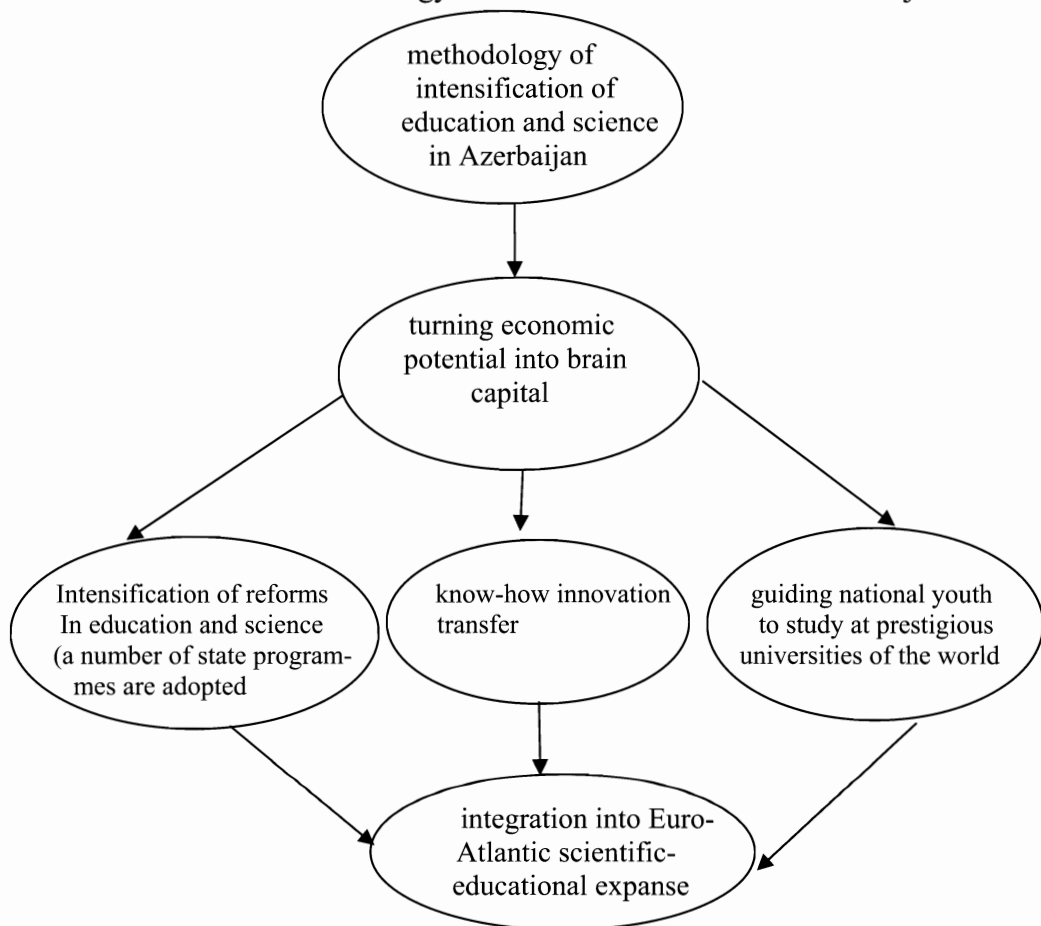
In present-day world science and education are the key spheres of development of assuring success in market competition and basic means to improve the efficiency of production and upgrade goods and services. The share of new knowledge embodied in technology, facilities, personnel organization, management in developed countries is 70-85% of gross domestic product [1]. Transition to continuous innovative process in management practice at all levels has become a key feature of present-day economic growth as well. All these will surely increase the significance of state scientific and technical, innovative and educational policy specifying general conditions for scientific and technical progress in different countries. It's almost a regularity in macroeconomic competition that the countries making favourable opportunities for scientific investigations and scientific and technical progress overtake. However, organization and development of such a medium accomplish a number of interrelated tasks. Among them organization and development of scientific schools capable of uniting the process of education and fundamental science hereby maintaining the unity of educational and scientific work are of great significance. The existence of scientific schools fosters progress of science and formation of creative, scientific personnel. They provide the continuity of not only conceptual and methodological knowledge but also research

experience, values, the tradition of scientific activity. Specificity of scientific schools is the output of new information applied not only in economic behaviour but also directly in academic activity, particularly in postgraduate and doctoral studies. Scientific schools form their area of scientific research adjusted to past experience and coordinated to modern demands. In other words, a scientific school can be characterized as an institute - "reproduction" of generation of scholars that includes inflow and selection of talented youth. Another characteristic feature of scientific schools is that they are continuously innovative centers of activity. Most commonly, the pivotal figure of a scientific school is its leader combining scientific-pedagogical abilities with organizer responsibilities, bringing together creatively gifted people, the like-minded. All the while, it is not a secluded but an open organization for competition of ideas and criticism [2]. As a result, a single scientific course can advance several scientific schools. Discordance of attitudes and opinions among them, including on an international scale, maximizes scholars' creative output and inspires scientific discoveries. Scientific achievements and the significance of the gained results of scientific schools are determined, first of all, by the recognition of their activity. National and international recognitions are noteworthy here. Nevertheless, before receiving international recognition, absolute majority of scientific schools function on national scale and within national system of interests with the support of their states. [3] Development of scientific schools, particularly in the countries of transition economy, substantially depends what policy the state pursues. Herewith, scientific policy of the country must consider the following factors: national aims and their realization by means of present-day scientific achievements. These factors favor state support for the establishment and development of scientific schools. Throughout the history of science, appearance of vivid personalities in clerisy and scientific school has always been associated with rapid development of some or other science discipline that is predetermined by public interest. Determination of these interests allows us to find out the directions that national scientific schools are established upon. This will be one of the most efficient forms of management through science, that in essence results in the management by research team that also includes scientific schools as a particular case conducive to high intensification of intellectual work. As a whole, a scientific school is evaluated as irreplaceable national wealth that, on the one hand, preserves intellectual potential of the country, on the other hand, presents itself as the producer of new ideas and discoveries, favouring social-economic progress of the country. From this point of view, quite relevant is the President of the Azerbaijan Republic Ilham Aliyev's quote "turning economic potential into brain capital". Its realization requires availability of professional, competent skilled group satisfying international criteria whose background has two principal directions; within the country and beyond its borders at the most prestigious universities. The very synthesis of these two directions i.e. cooperation of trainers of national and foreign scientific, educative schools will advance the development of economy, science, education and social sphere.

A developed country has to be both the exporter and importer of scientific achievements. We should take into account, that the development level of science to a large extent determines the efficiency of economic activity, defense capability, intellectual and political culture of the population, protection of a person and society against adverse factors generated from economic globalization. Herein domestic and international scientific potentials need distinguished support. Only suchlike exchange can condition favourable environment for healthy competition and entrepreneurship in the spheres of science and technology, stimulation and support of innovative activity. Today, we can speak about the establishment of world science in its most various manifestations: body of knowledge, information technologies, communicative features. The more science and education intensify, the more they deviate from classical structures and methodologies. It's noteworthy to state, that methods of global cooperation at all levels are devised namely in science: amongst governmental bodies, educational institutions, scientific schools, individual scholars. Presently, the latest presentations of the achievements of science and technology are widely implemented and spread – scientific-technological parks (technoparks), technology transfer centers, support of innovations, exchange of scientific information. Alongside with the technical sciences, humanitarian ones such as history, culture, traditions, people's behaviour in different states are also included into the sphere of international transfer, that founds new approach to international relations as the interaction of the civilization carried out by cross-cultural management.

All the mentioned processes are characteristic for Azerbaijan as well, where critical measures have been taken and remarkable results are received in the reconstruction of economy, social sphere, education and science in accordance with the market demands. The country intensively integrates into the international economic system, stable political and economic environment is established. Further development in the stated sectors requires corresponding development of education and science and the implementation of the latest technology. On this basis, considerable steps are taken both in the development of national scientific schools, education system, introduction of advanced technology and all-round application of foremost international practice in the specified spheres and integration into global educational space. Such topical questions as highgrade management in the field of higher education, joint academic programmes, cooperation of universities with industry sector and local communities, IT&C for network establishment among universities, advanced teaching and study of technology are on the agenda. Greater attention is focused on the recruitment of young staff educated at higher educational establishments abroad that corresponds to the public educational political course of the Azerbaijan Republic. In this respect it bears to mention, that in 2007 Ilham Aliyev, the president of the Azerbaijan Republic issued a decree on the state sponsorship of 5000 students' education at leading universities of the world (4) i.e. all the best is done to conform the utterly poor inherited from the former regime technological infrastructure of education with the state of the art

international standards. All this hard process, demanding considerable financial and intellectual investments is carried out pursuant to the following chart which presents intensification methodology of education and science in Azerbaijan.



This process embraces intensification of reforms in the spheres of education and science, innovation transfer such as know-how and guiding national youth to study at prestigious universities of the world, that will serve the country to advance and integrate into Euro-Atlantic scientific-educational expanse.

Despite the difficult problems – Azerbaijan-Armenian conflict in Bepegorno Garabagh lasting over 2 decades, over one million refugees and internally displaced people, the country considers the development of science and education to be one of its most important directions of activity. About 25% of the state budget is allocated on the advance and material-technical supply of these fields. The most spectacular example of the priority of science and education in the domestic policy of Azerbaijan can be cited the fact that, within the last few years millions of euro were appropriated for workout and Bepegvelopment of scientific researches of applied relevance and purchase of unique in South Caucasus facilities such as Cary Eclipse spectrofluorometer, atomic-force microscope, NMR, chromaspectrometer, spectrometer Furye, SF Bepeg-

copy Perkin Elmer, derivantograph Q-1500, atomic-adsorptive analyzer, APEX II X-ray diffraction meter. The government of the country does its best to computerize all the schools, improve social welfare of teachers, appointment of motivation in education, realization of different programs and projects in the sphere of education.

The decision on the orientation of setting European education system as “international quality benchmark” adopted by European Union in 2002 has become the initial stage of the perfection of education system. All the participant states brought national legislation pursuant to the principles and goals of Bologna process.

After issuing the declaration of joining Bologna process by in 2005, Azerbaijan universities extensively join Bologna declaration, that enables to construct a more promising expanse of solidarity in the sphere of European hisgher education. Even the conception of European expanse of higher Bepecation itself places an emphasis on the actual from the point of view of social changes components of education and upbringing a new crop of graduates. Allround conversion of higher education establishments into two-tier system of education, implementation of credit system, workout of the Enclosures to diploma on European model, quality improvement of higher education, and evaluation system are being carried out and developed in the country. The problem of accreditation of higher educational establishments, recognition of diplomas, students’ and teachers’ mobility are worked out, “Exemplary conduct of organizing education process at higher educational establishments on the basis of credit system” is worked out by the Ministry of Education of the Azerbaijan Republic.

Students of Azerbaijan present themselves as active members of a number of international and regional associations of universities of different countries. Our scientists take part at such prestigious international scientific seminars and forums as “Forecast of disaster prevention and management in oil industry”, “Nanomaterials and nanotechnology for sustainable development”, “Safety through science”, “The problems of integration into education and science and technology transfer in Black Sea region in the context of Bepebalization”, some of which were organized and held in Baku. In brief, large-scale work is carried out for comprehensive development of education and science, workout and imlementation of modern technologies, intensification of integration among higher educational establishments, supply of students with highgrade advanced education.

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