My neighbor on the landing, Ph.D., erstwhile educated in prestigious Moscow University, often complains that he cannot help his grandson do math homework. “Wow! They are studying such things! Abstracts, project works on such topics, that I never heard before!” - He says. I enter into controversy with him that the world has changed, we have changed, and content of education is changing.

“The secret of the changes - to direct all his energy not to fight with the old, and to create a new”.

ancient thinker, the first Athenian philosopher Socrates (about 469 - 399 BC.)

Of course, we have to note that some of our fellow citizens, not only the older generation is being nostalgic for the Soviet school. For them it is the pattern of classical, fundamental education, education lasting for ages. In their minds, there is simply no other education model, and any reform of the education system, including updating educational content, perceived as something unacceptable.

Why do we need to update education?

Today's students - the children of the 21st century: age of globalization and integration; age of mobility of human resources; age of the growing influence of the media and technology; age of huge changes in information and communication technologies.

How do the world changes (open borders, the volume and rate of communication, economic development, self-management of people), influence the development and education of our children? How does Kazakhstan education system respond to these changes?

At the beginning of this century, the UN General Assembly adopted the "Millennium Declaration", which states "... the central challenge we face today is to ensure that globalization becomes a positive force for all nations in the world. Globalization will become overall and equitable only through widespread and sustained efforts for creating a shared future, based upon our common humanity in all its diversity."

Globalization affects all areas of human activity. It provides the interpenetration of religions, cultures, traditions, mentality, and familiarizing humankind to the world.

The aims of national education are to provide historical continuity of generations, to
preserve the spiritual values of the people of Kazakhstan building a culture of interpersonal relations. The basis on resolving these tasks are development of the state language, introduction of multilingual education, introduction “Mangilik el” values, use of technology to promote the development of critical thinking and cooperation.

The modern world - a world of increasing information flows. We know that modern man receives and processes the same amount of information a month, as a person of XVII century - for an entire lifetime.

According to the sixth IDC research (2012), the ubiquity of technology and access to the Internet has led to the fact that the amount of information over the past 2 years has doubled. The study estimated the volume of 2.8 zettabytes generated data in 2012, and predicts increase of up to 40 zettabytes by 2020, which is higher than their previous forecasts by 14%.

*The number of grains of sand on all the beaches of the land is 700 500 000 000 000 000 000 (five or seven quadrillion quintillion).*

*Scientists estimate that 40 zettabytes - is 57 times greater than the number of grains of sand on all the beaches of planet.*


According to IDC experts, the amount of data in the world will at least double every two years, with the proportion of useful information of only 35%.

Accelerating pace of development of society and science has not only led to a sharp increase in research and production of information, but also led to an intensive “aging” and the depreciation of some previously accumulated human knowledge and skills.

*If we write 40 terabytes of data on the current disc Blu-ray, the total weight of the drive (without paper and plastic packaging)*

*will be equal to the weight of 424 carriers. Blu-ray Disc, BD (Eng. Blue ray - blue ray and disc - drive, instead of writing a blu blue - intentional) - format optical media used for recording high-density storage of digital information, including high-definition video.*

For example, most of our children do not remember a tube TVs, and our grandchildren have never heard of pagers and diskettes.

How to maneuver in such information flows? How to select the necessary and useful information, since the World Wide Web is not responsible for the moral and ethical content and the information content. Is today's school able to make sense of this for our children?

Recently, it seemed that the Kazakhstan school has retained the best from the former Soviet system of education, in particular, the fundamental knowledge. However, the results of the participation of our students in international comparative studies of the quality of education TIMSS-2011, PISA-2012 showed that having a sufficient level of academic excellence, Kazakhstani students do not know how to use it effectively, are poorly oriented in the
Methods and approaches a critical analysis of the situation for the further application of knowledge.

International experts (OECD, 2014) point out that in most cases today the training of students in Kazakhstan schools is conducted with an emphasis on the theory, and does not devote enough time to the possibility of practical application of knowledge. "With the result that, students are not able to sufficiently and effectively apply and use the acquired knowledge in the context of new situations. Education does not contribute to the development of higher-order thinking skills.

Illiterate people of the 21st century are not those who cannot read and write, but those who cannot learn to forget what they have learned, and relearn.

Alvin Toffler (born October 4, 1928) - American philosopher, sociologist, and futurist, one of the authors of the concept of post-industrial society

The question arises, what should be a school of tomorrow to meet the challenges of today for the future of our children? What needs to be changed? How the best education systems are being improved?

At present, almost all developed countries have realized the need to reform their education systems so that the student really has become the central figure of the educational process and cognitive activities were in the focus of educators and researchers.

The educational systems of leading world countries, OECD focuses primarily on the development of competencies. These countries are making great economic success due to the high competitiveness of human resources (Korea, Japan, Finland and so on).

"When the reform of child a zero interest in the formation of twilight".

Michael Barber, the chief adviser to the education company Pearson

Kazakhstan aims to improve the quality of education by the transition to the new content of school education, centered in the development of functional literacy of schoolchildren, the skills of independent research, critical analysis and assessment, that is the transition from "a man who knows" to "a man, creatively thinking, acting and self-developing.»

Teachers cannot afford teaching students all the knowledge and achievements of humankind, but can give "not the fish, but the fishing rod". The teachers can teach students to extract their knowledge, the skills of creative and critical thinking. Teachers can contribute to the development of functional literacy of students.

A prominent American businessperson John Grillos at the UNESCO conference very accurately expressed the importance of this approach. He said that his little worries are about the strength of the knowledge acquired by students in a particular area, as this knowledge is subject to change each year, and this knowledge is sometimes obsolete before students will be able to assimilate them. Much more important, according to the businessman, "...that the economy gained young people who are able to independently learn
to work with the information on their own to improve their knowledge and skills in various fields, acquiring, if necessary the new knowledge profession, because that's what they have to deal with their entire adult life”.

National Academy of Education named after Altynsarin, in close cooperation with the Centre for Educational Programs of autonomous organization of education "Nazarbayev Intellectual Schools", are developing updated education standards and curricula.

_Children need to be taught what is useful to them when they grow up._

Aristippus (c. 435 - c. 355 BC. E.) - Ancient Greek philosopher, student of Socrates

State educational standard of primary education has clearly defined requirements for the content and its main goal: “establishing education area that is conducive to the harmonious development of personality formation and learning, based on the following range of skills: 1) functional and creative application of knowledge; 2) critical thinking; 3) conduct research; 4) use of information and communication technologies; 5) the use of different methods of communication, including language skills; 6) the ability to work in a group and individually”.

Thus, the paradigm of education is changing, we are moving from the concept of "good education for entire life" to understanding the need for life-long education.

Implementation of activities to update the content of education, relied on supporting 30 schools in Kazakhstan has started current academic year. Next year, the transfer the entire education system to the updated one is planned.

_Since we live in an era of innovation, practical education should prepare the individual to work that does not yet exist and which can not be clearly described._

Peter Drucker (1909- 2005) - American scientist of Austrian origin;

_Economist, writer, teacher and one of the most influential management theorists of the XX century._

The result of the renewed education must become an educated man, who has developed a wide range of skills that allow him to adapt to a rapidly changing environment.

Changing the educational paradigm must ensure Kazakhstan introduction into the international education space. In 21st century, it is recognized that the level of education of the nation, its ability to implement advanced technologies will be the determining factors in the global competition.

_The competitiveness of a nation in the first place, determined by the level of education, the country that is not able to develop knowledge in the XXI century will be doomed to failure._

N.A. Nazarbayev - President of the Republic of Kazakhstan
Updating education is not only the renewal of its content. This includes update of the educational process, assessment system, the system of relations between teacher and student. That is, the update of all components of education - content, methods, forms and means. Nevertheless, this is a topic for the next call.

Another materials of author


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