

#### **1. History of Education**

Enjoying a quite old history, the Azerbaijani education and pedagogic conception is recognized and studied not only in the East, but also in the Western world since the start of the Middle Ages. Azerbaijan is one of the most ancient human habitations and origin of civilization, the wealth created through human intellect enjoys a great history here. Sources prove that even during the period when the first writing was not discovered, people residing in Azerbaijan used to express their ideas and thoughts through drawings and signs on the rocks. The drawings inscribed in Gobustan and Gamigaya, which are currently considered as UNESCO's ancient cultural monuments are the signs of the will of the people that have inhabited here 3,000-3,500 years ago in order express their information, knowledge, and ideas.

Historical facts prove that separate schools offering primary knowledge have existed in Azerbaijan since the 3<sup>rd</sup> century AD. During the 7<sup>th</sup> and 8<sup>th</sup> centuries, an education system that has raised instruction to a higher level was established. Higher educational institutions made Azerbaijan famous throughout the world even in the 11<sup>th</sup> and 14<sup>th</sup> centuries. In the 16<sup>th</sup> and 18th centuries, the education system in Azerbaijan has seen a growth in nationalization tendencies. Starting from the 19<sup>th</sup> century an education system based on European model has been developed.

In May, 1918, Azerbaijan People's Republic, the first democratic nation in the East, was established and this led to taking a number of important steps in terms of developing the national education system. During this period, Baku State University, the first secular educational institution in the East was founded. In September 1919, the Parliament adopted a decision on sending 100 young persons to study in the higher educational institutions of foreign states.

A new phase in the history of education started with the establishment of the Soviet rule in Azerbaijan. Particularly during that period, Azerbaijan provided mass education, eliminated illiteracy, and created a wide network of secondary, technical and vocational, secondary profession and higher educational institutions.

During the independence period, the country has implemented large-scale activities in creating national educational system, and carried out reform programs in an intensive manner.

Reforms carried out in the development of education firmly assure us that modern Azerbaijani education, based on national-moral and international experience, will be developing and integrating into global education system.

Measures taken toward the development of various levels of education as an outcome of educational reforms implemented in the Republic of Azerbaijan mark great progress. The Ministry of Education of the Republic of Azerbaijan undertakes the mission to advance all facets of quality of education, to create an equal condition for all, to formulate a sophisticated human capital and ultimately be in a constant contact with leading countries in order to maintain a sustainable development.

Education policy is being carried out in order to provide citizens with high quality education, as it is indicated in the Constitution, by virtue of setting up and implementing a single education policy.

Financial resources of Azerbaijan augment year by year, notably due to oil revenues, and it eventually brings about a constant increase of allocations to education. Allocations to education in 2004 contained 380, 4 mln. USD and in 2005 it was 467,4 mln. USD. In 2006 it indicated 615, 4 mln. USD and reached the amount of 934, 5 mln. USD in 2007. Currently, the education budget augmented 52 percent as compared to 2006. Education expenditure will reach up to 1202, 4 bln. USD in 2008, which is 28.7 percent more than the one 2007.

Expenditure of investment contained 7, 1 mln. USD in 2004, while in 2006, it was 62, 5 mln. USD. This figure marked 140 mln. USD in 2007 and it was more than a double compared to 2006. The number is predicted to reach up to 300 mln. USD in 2008.

# 2. Problems specific to transition period

The transition from an education system that functioned under a totalitarian regime for a long time to a national education system that characterizes democratic values, international experience was naturally followed by serious challenges. The transformation from a Soviet school that practiced common curriculum, syllabi and textbooks to a national school was a major challenge before the education system and needed to be resolved in a short period of time.

Shifting the ideology and establishing a new national ideology that is completely different from the former one were considered serious problems that needed to be solved in the context of education development during the early period. Foremost, making changes to the content of education, developing the content based on national values were especially crucial. Since most textbooks reflected the Communist ideology and except only a few textbooks other titles were brought completely ready from the outside during the Soviet period, there was a serious need to urgently update them.

One of the aspects that delayed progress during the early years of independence was the mass transition from Cyrillic alphabet to Latin script. This transition caused a necessity for renewing and publishing all syllabi, textbooks, instruction materials, learning and supplementary

reading materials in Latin script by spending huge amount of financial resources in a quite short period of time.

As a result of Armenia's aggression to Azerbaijan, occupation of the Nagorno Karabakh and adjoining 20 percent of the territory, one million people from Armenia and the invaded territories were displaced from their native lands and refugees and IDPs developed. Only the buildings of educational institutions and their hostels and dormitories host nearly 8,000 IDP families. About 1,000 educational institutions, including 616 secondary education schools, 234 pre-school education institutions, 12 vocational education schools, 35 extra-scholastic education institutions, 5 secondary profession schools, 1 higher education institution, 1 branch of a higher education institution, 2 schools of a higher education department, 3 branches of secondary profession schools were destroyed in the occupied lands.

As a result of the aggression, around 130 thousand Azerbaijani pupils and students, as well as nearly 20 thousand people working in the field of education were displaced. Most refugees were placed in instructional buildings and hostels of educational institutions, kindergartens and extra-scholastic education institutions; this has significantly affected the operating harmony in education system of the country.

3. Structure of education system of Azerbaijan

| <i>Pre-school education</i> Day nursery house | age level from<br>0-3                                   |
|---|---|
| Kindergarten                                  | 3-6   |
| General education                             |   |
| Primary                                       | 6-10  |
| Basic education                               | 10-15   |
| Secondary education                           | 15-17   |
| Professional education                        | period of study (years)                                 |
| Vocational education                          | 1-3 (professional schools, professional lyceums,)       |
| Secondary education                           | <b>3-4 (technical schools, colleges)</b>                |
| Higher Education                              |   |
| Bachelor degree study                         | 4   |
| Master's program                              | 2 (institutes, universities, academies, conservatories) |
| Post-Graduate education                       | period of study ( years)                                |
| Doctorate, PhD                                | 3   |
| Extracurricular education                     | from 7 days up to 3 months                              |

and professional training

In service training Specialized training 6-9 months up to 3 months

#### 3.1. Preschool education

Preschool education plays an important role in physical and psychological development of children in their early years, in discovering their ability and in preparing them to school life. Thus, the transformation of resources into human capital is laid in preschool institutions. Studies show that money spent on child development brings benefits more than seven times afterwards.

In Azerbaijan, preschool education includes 0-6 age period. Children up the age of 3 receive education at infant houses and 3-6-year old children go to kindergartens. Currently 1,761 pre-school education institutions operate in country. These institutions provide public education to 109,867 children. 240 kindergartens, which constitute 14 % of all pre-school educational institutions of the country, have been announced open for privatization by the decree of the President of the Azerbaijan Republic on August 23, 2006. This partial privatization of the kindergartens is aimed at sound competition and positive changes in the relevant field. An analysis of activity in 3 private kindergartens in Baku proves that even though the tuition fee is high, parents enthusiastically bring their children to these institutions that offer all types of conditions.

#### 3.2. Implemented Activities

Ministry of Education has jointly taken some actions with a number of international organizations in recent years in order to eliminate existing problems in pre-school education and to generally improve the level of education. It has implemented various relevant activities in terms of practicing contemporary learning methodologies that are directly aimed at children's development. The Ministry has been implementing a number of joint projects with UNICEF, UNESCO, OSI Azerbaijan, and World Food Program.

36 pre-school education institutions in 18 regions of the country enjoy a certain experience in practicing the Step by Step Program and training centers have been established in 8 regions. Productive activities of 33 Children Development Centers established in 14 regions of the country for children from the IDP families play a significant role in psychological rehabilitation of children.

Approaching every question with a gentle care, raised with regard to the development of education, on April, 2007, President approved the program on Reforming Preschool Education covering 2007-2010 periods. The program sets out to strengthen the network and material-

technical basis of institutions, to improve the management, to direct administrative, legal and economic mechanisms to productive activity of these institutions, to prepare a national curriculum on preschool education, to acquire a world expertise in this field, to involve international advisory service, and ultimately to raise the social status of preschool education. The Program also sets out to include a binding five-year children preschool education in conformity with the world standards.

Within the framework of "Reforming the Preschool Education in the Republic of Azerbaijan" Program, in 2008, a total of 21 preschool institutions have been reconstructed and provided with relevant equipments. Moreover, efforts are being made to set up a normative-legal basis on the implementation of inclusive education within the framework of Reforming Preschool Education in the Republic of Azerbaijan (2007-2011) Program. In addition, it is planned to expand the expertise in the future. It was also designed to hold trainings and seminars with the support of World Bank for parents whose children avoid attending preschool education institutions within the Project of Improving Education Sector. Statistics of Indicators of Preschool Education relevant to international standards have been made up by the State Statistics Committee of Azerbaijan Republic.

Additionally, the second Project on the Development of Education Sector aims at implementing programs called School Preparation and Enlightenment of Parents within the development of preparation to school with the support of World Bank and UNICEF. The main objective is to establish a preparation of five-year old children in short-term groups, to support the application of innovative methods in preschool education institutions, to disseminate information on a child health, nourishment and social and moral development through parent enlightenment.

#### 3.3. Challenges

There are a number of objective factors constraining the progress of pre-school education. The society, including the parents do not sufficiently perceive the role and importance of pre-school education. Material and technical infrastructure, and instructional capacity of pre-school educational institutions still remain poor. Thus, 70 percent of these institutions are based in buildings that were not designed for kindergartens, and do not provide minimal conditions for arranging for teaching and learning process. 65 % of the institutions require a capital renovation work. A great majority (80 %) of these institutions are not provided with heating system. In the last 15 years, no new pre-school educational institution was constructed. 32 percent of the institutions host 1,683 IDP families.

The analysis shows that pre-school educational institutions operate only in one fifth of the country's populated areas. This means that the majority of kindergarten-age children are not offered any public education opportunities. 19.9 % of the children in country are involved in pre-school education, whereas this indicator constitutes 80-100 % in developed states.

Not only has there been any new pre-school educational institution constructed, but also there was no existing kindergarten rehabilitated, or provided with instructional and visual supplies, state-of-the-art teaching materials. Furthermore, the existing resources do not meet present-day requirements.

Another existing challenge is that the preschool education curriculum does not satisfy contemporary requirements. In most cases, existing syllabi remain unrealized due to the lack of relevant material and technical infrastructure, and methodical foundation. The analysis also evidences that these syllabi do not sufficiently take into account the contemporary development tendencies of pre-school education and do not serve to develop children's thinking to a certain extent. That is why there is a serious need to improve the content of pre-school education. In addition, the level of medical services provided at pre-school educational institutions is not satisfactory. Moreover, kindergartens are provided with only 40 % of the most essential medical services.

Pedagogic staff members in pre-school educational institutions do not satisfy the current needs at all in terms of the teaching quality. Only 23 % of the 14,497 people working in these institutions have a higher education diploma. Among these instructors, only 65 % have a basic professional education.

Certainly, one of the lines of activity is to solve the critical staff problem through placing the graduates of higher pedagogic and secondary profession educational institutions in the nearest future. At the same time, it is also pertinent to organize courses and trainings based on contemporary teaching programs in order to raise the professional level of the current teaching staff.

Following the comprehensive analysis of the characteristic problems of all pre-school educational institutions operating in the country, State Program on Developing Pre-School Education was developed in order to eliminate the current problems. The Program on improving the Pre-School Educational Institutions in the Azerbaijan Republic for 2007-2010 was approved by the Presidential order on April 12, 2007.

The 4-year Program foresees strengthening the material and technical infrastructure and instructional foundation of the institutions, providing them with contemporary equipment and teaching materials, including construction of up to 400 new pre-school educational institutions in needed areas, capital renovation of more than 800 institutions and other relevant issues.

#### 3.4. Long-term activities

The Ministry of Education has identified prospective focal development points in order to improve the pre-school education:

- Development of new curriculum that meets contemporary requirements;
- Improvement of existing curriculum for staff training and in-service training, and arranging for training courses for instructors;
- Learning and applying the international experience on pre-school education, contemporary models and mechanisms;
- Increasing the pre-school education coverage level;
- Reinforcing the material and technical and instructional resources of the institutions, and providing them with equipment and teaching materials;
- Creating a personality-oriented learning environment in educational institutions;
- Improvement of the existing financing mechanism;
- Providing for necessary conditions in kindergartens and schools in order to involve the five-year old children in compulsory preschool education;
- Establishment of the community-based (alternative) pre-school educational institutions.

## 4. General Secondary Education

Secondary Education is a process, based on the interest of human, family and society, on national and global values, on the principles of secularism, inheritance, integrity and democracy, aimed at formulating personality and creating a necessity to embark on activity and to carry on education. Furthermore, it does maintain to develop personality, to acquire additional knowledge, to apply what has been acquired, to master necessary skills, to perceive and evaluate problems, process and tendency of development in a swiftly changing world taking into account personal characteristics, psychology, physiology and age of pupils.

General secondary school is the greatest level of education system in terms of its scope. To construct new school buildings, to provide educational institutions with Information Communication Technology (ICT), and rural schools with educators, and pupils with free textbooks, to improve the structure of secondary education, to set up and apply new techniques on teacher training and new curriculum, to establish information system on education management and a new system on evaluation of pupil achievement, to complete supply of ICT, to create the system of efficient use of ICT, to expand the application of new financing mechanisms, to carry on strengthening material-technical basis are the issues that cover the development perspectives of general secondary education.

In Azerbaijan, secondary education starts from the age of 6 and consists of three levels. Primary education contains Grades 1 to 4. The major goal of general primary education is to create and consolidate habits of reading, writing and counting of children, to provide them with superficial knowledge on human, society and nature, to formulate their logic and creative reasoning, to teach them moral values, sensitivity and skills, to differentiate intelligent children in their early years of study. Basic education level includes Grades 5 to 9, and the final secondary education is provided at Grades 10 to 11. General secondary education is compulsory, that is to say Grades 1 to 11 are mandatory to study.

Under the President's Decree on founding the Knowledge Day and regulating work routine in educational institutions in the Republic of Azerbaijan dated August 21, 2004, all general secondary schools function on a five-day work schedule for Grades 1 to 4 since 2004-2005 academic year. Since 2005-2006 academic years all the educational institutions operating in a single-shift routine have shifted to a five-day instruction week. There are still activities under way to fully shift all the schools to such a routine by different stages.

General secondary education is the largest stage of the education system according to its coverage level and scope. This level of education is of interest to any family and serves as a factor affecting such a family's involvement. That is why educational reforms carried out in Azerbaijan have mostly included the general secondary education level. General secondary education plays an exceptional role in everyone's life. First of all, general education is the space for preparation to an independent life. The foundation for advancing the personality, which constitutes a crucial factor for the society's economic, cultural and social progress, is laid by general education. In this regard, it is not a coincidence that the society and the state approach general secondary education with an intense exigency given the national interests.

Currently a total of 4,525 general secondary education schools operate in the country. These institutions provide education for 1,531,226 students, and these students are instructed by 174,490 teaching staff. 32,967 gifted students study at 53 lyceums and gymnasiums functioning in country. 6,047 students study at 13 private general secondary education schools.

#### 4.1. Implemented Activities

The Ministry of Education has been implementing a number of specially designed programs in order to eliminate the current problems in general secondary education system.

During the last 4 years over 1,000 new schools have been constructed, 785 schools underwent a capital repair, 71 schools were rehabilitated. Only in 2005, 328 new schools were

constructed. A total of 288 schools with a total capacity of over 100 thousand students were started to be constructed in 2006. Further, 200 new school buildings were constructed for the schools that were in a wrecked condition in the framework of the New Schools for Modern Azerbaijan Program, an initiative of the Heydar Aliyev Foundation led by the First Lady Mehriban Aliyeva, a UNESCO and ISESCO's Goodwill Ambassador, a Member of Parliament, in the last two years. Moreover, nearly 30 schools are in the process of construction under the same Program. In 2006, some 340 schools underwent a capital repair and 42 of these institutions were renovated through the centralized funds by the Ministry of Education.

The work under the abovementioned Programs was continued in 2007. Some 292 new buildings with a total capacity of 105,560 students were constructed and over 100 schools underwent capital repair.

Surely the achievements mentioned above indicate that highly important steps were taken in recent years in terms of constructing new school buildings, supporting the existing schools with material, technical and teaching resources. However, the existence of over 300 schools that are in a disastrous situation, the placement of nearly that many schools in adjusted buildings which do not provide favorable learning conditions, a high student density in a number of schools, especially in the capital, presence of multiple shifts in schools and other issues still suggest that serious problems remain in this area. In this regard, there is an ongoing work for preparation of a new program on capital repair and new school construction for years 2008-2012 on a commission by the President.

Development Program on Providing General Secondary Educational Institutions with Equipment in the Azerbaijan Republic for 2005-2009, approved by Order # 148s of the Cabinet of Ministers of the Azerbaijan Republic, dated June 10, 2005, is under implementation. Under this Program, 278 schools were provided with contemporary equipment in 2005 and 2006. It should be emphasized that student desks, writing boards, teacher desks and teacher chairs were not only partially replaced, but were also fully substituted with higher quality ones.

Within the framework of the Program, in 2007, some 65,000 student desks, 5,800 writing boards, 10,000 teacher desks, and 12,000 teacher chairs were started to be delivered to the schools.

Our biggest achievements have certainly been related to the textbook provision issue. Under the State Program on Poverty Reduction and Economic Development in the Republic of Azerbaijan (2003-2005), students have started to receive free textbooks since 2003. In 2005, the full cycle of providing all the students with free textbooks in Grades 1 to 11 was completed. Azerbaijan has become the only state in post-soviet area that ensured free provision of all textbooks in general secondary education. These activities have continued in 2006. More than 5 million copies of 108 textbooks were delivered to the students free of charge. This constitutes nearly 80 % of all the textbooks for general secondary education schools in the last couple of years.

Schools have also been provided with the educational supplies and supplementary reading materials printed in Latin script. Under the Education Sector Development Project, 846,000 printed copies of 18 encyclopedic materials have been delivered to schools. Currently, there is an ongoing work on providing schools with instructional materials and maps. More than 19 different maps have been delivered to schools.

Besides, there are still some problems remaining in the textbook development area. The textbooks have a difficult language and overloaded with secondary materials. The available textbooks do not have much capacity to promote development of thinking. Moreover, there are still some cases where the textbooks do not meet the contemporary requirements set for printing quality.

Finally, the other problems are that the textbooks in Azerbaijan are not prepared as widely practiced sets -(textbook, student's book and teacher's book) and that there is a lack of sufficient alternative textbooks.

Elimination of the existing problems has made it necessary to carry out reforms in developing textbooks and instructional materials. The Textbook Policy in General Education document prepared in this regard reflects the existing models and mechanisms used in the world in this area. The Ministry has prepared scientific basis on textbook development, their compilation principles, and methodical requirements. The textbooks submitted for review will only be permitted to be printed if the Textbook Evaluation Board adopts the decision after reviewing it thoroughly. The most important point here is that textbooks will be evaluated through the approved criteria, not formally based on subjective views.

The Program on Providing the General Education Schools with Information and Communications Technologies (2005-2007) was approved by the order of the President of the Azerbaijan Republic on August 21, 2004. The goals of the Program are to provide general education schools with modern computer equipment, train teachers and managers to build capacity for being able to use information and communications technologies in their relevant fields, create the instructional and methodical foundation for using ICTs in education, develop, disseminate and apply contemporary electronic teaching resources in Azerbaijani language, electronic textbooks, electronic libraries, digital teaching resources, create the information infrastructure of the education system, elaborate the modern methodology of education based on information technologies, create a scientific and methodical provision, distance learning services for the students, educational portals and websites, develop a glossary of contemporary terminology on information and communications technologies used in educational publications, and scientific and methodical publications, etc.

As to the Program "Providing ICT" 3693 schools were equipped with 31 677 computers as wells as 1103 schools with laptops and head projects. Moreover, some 12 232 teachers were trained during 2005-2007. In 2007, 2519 schools were equipped with ICT. Furthermore, some 666 schools were supplied with laptops and head projectors. Additionally, 4000 teachers participated in trainings.

In 2004, the ratio of computer to pupil was 1 to 1000, whereas now it contains 1 to 29 pupils between the fifth and eleventh forms at secondary schools.

To this end, electronic materials and visual aids have been made up on chemistry, physics, history and biology subjects, and delivered to schools for the first time in our history of education.

One of the most characteristic features of the modern period is information century and development of information society. Education, a strategic field of activity for any state is also not an exception from this point of view. The use of information and communications technologies in education system is a complex challenge that requires the joint solution of a number of issues. The optimal solution is not possible without the analysis of both technical capabilities of the used ICTs and the efficient ways of use in educational process. The unique feature of using the ICTs in teaching process is that here a computer is not only a tool that facilitates a teacher's work and makes it more efficient, but also a learning object. The range of pedagogic capabilities of ICTs is so wide that they allow to be used in teaching any subject.

Consequently, a project called "Electronic school" that is being implemented successfully in the developed countries is has a significant importance in application of ICT in education. This project maintains easy management, strengthening parent-school connections, control of pupil attendance, expanding electronic contact between schools, notably informing pupils' achievement very promptly. It was decided to embark on this project at two secondary schools in Baku.

As the continuation of this process the State Program on Electronically Centralized Information in Education System has been designed covering 2008-2012 periods. The Program plans to develop all pillars of education system, to provide fast Internet access, to establish information and resource network in order to provide the integration of ICT in all stages of education system with the aim of maintaining methodical, technical and other services; to teach how-to-use of ICT to educational, administrative and technical staff; to set up a system of assessment and motivation for creative teachers; to establish a base of modern electronic scientific-methodical materials and electronic teaching resources; to upgrade information system in order to efficiently manage and monitor education system; to implement the project "Electronic School" together with leading companies in ICT area.

One of the major demands of our country's social and economic development, and a principal factor that prescribes the necessity for information technologies in education field is developing in all of the students the skill to use information technologies regardless of the level of education. Realization of this objective creates necessary conditions for increasing the intellectual activity possibilities in real life processes of the growing young generation. As a matter of fact, the benefit to the state derived from providing mass ICT literacy is often more than the gain from any industrial innovation. On the other hand, the use of ICTs has become one of the important components of education in modern society.

Using new information and communications technologies in education system is an essential demand for information society. The major indication of the contemporary society was determined as follows during the UNESCO World Forum on Education for All in Dakar in 2000: *Information society should enable every person to receive a high quality education throughout his/her life. ICTs are used as the learning object in education system; and as a tool in teaching process, education management, and applied educational researches.* 

In an environment where the information society was being created, in 2004, there was nearly 1 computer for 1,000 students in general education schools of Azerbaijan. Even in 80 % of the schools in Baku, the capital of Azerbaijan, there weren't computers. Majority of the computers used in schools were outdated ones.

The Ministry of Education has been implementing joint projects with a number of international organizations as a support to the Program. In 2005, the Government of Azerbaijan and the United Nations Development Program have signed an agreement on ICT Provision of Schools. The major goal of the Project is to support the implementation of the State Program, create a unique information environment that serves to improvement of the quality of education using new information technologies in the country, provides equal opportunities for the citizens to benefit from education at all stages and levels, and paves the way for integration of the country education information system to the world education system, and prepare people for information society.

The Ministry of Education has also signed a Memorandum of Understanding with CISCO Systems, a US company. Under the Memorandum, the computers are to be connected to the Internet network.

In 2006, the Ministry of Education singed a Memorandum of Understanding with Microsoft Company, the most prestigious and advanced organization in the world in ICT field. The Memorandum envisions the framework for cooperation and identification of conditions for development of the Partnership in Education initiative. Partnership in Education is the worldwide educational initiative of Microsoft Company which supports the educational institutions, teachers and students all over the world in obtaining the required knowledge on acquiring and using the information technologies. The goals of the Memorandum are to expand the use of modern information technologies in the educational institutions of Azerbaijan and further develop the noncommercial instructional Partnership in Education initiative. In order to attain the goals of the Memorandum, the parties have agreed to implement joint activities under 10 projects by December, 2007.

The Ministry of Education also signed a Memorandum of Cooperation with Intel Company in 2006. Under the Program implemented within the framework of cooperation, it is planned to train some 100.000 teachers instructing various subjects in years 2006-2010.

In 2006, within the framework of the joint project, program materials have been translated into Azerbaijani, adapted and printed, while training courses were organized for experts, trainers and teachers.

In addition to the collaboration with the international organizations, the Ministry of Education also benefits from the experience of the leading countries of the world on the integration of ICTs to education. In June, 2006, through the funds from Hewlett Packard (HP), delegation from the Ministry of Education attended the international workshop in Belfast, Great Britain, on Innovations in Electronic Learning. During the workshop, the delegation was informed about the theoretical issues in computerization of the education system, the Classroom-2000 project implemented by HP, and the single information center that connects schools. The experience gained in England would be useful in terms of effective implementation of the projects carried out in applying ICTs in education system of Azerbaijan, as well as the activities foreseen in future.

The Ministry of Education is doing a preparatory work on the implementation of the Electronic School project. The Project is expected to create necessary conditions for flexible management in schools, strengthening the relations between the parents and school, monitoring the attendance of students, expansion of the inter-school electronic relationships, and communication of student achievement.

Along with the implemented activities, there is also an array of problems in using ICTs. Thus, schools do not effectively use the ICT equipment supplied to them. Further, some schools do not have computer literacy teachers and the subject-specific teachers have not acquired the necessary skills on using ICTs, despite the fact that they had attended certain trainings. Moreover, the methodological resources are not sufficient. Finally, the school managers cannot effectively employ the opportunities of ICTs in teaching process and management. Taking into consideration the particular role of ICTs in education in contemporary period, the following measures are planned to be taken:

- Expansion of the possibilities for using ICTs in management sphere;
- Regularly organizing professional development courses on ICTs for management body, managers of educational institutions, and subject-specific teachers;
- Integration of a course on ICTs to the content of in-service curriculum content;
- Broadcasting scientific and popular programs and special rubrics on the use of ICTs in educational process on mass media;
- Development of new standards on information and communication technologies;
- Development of requirements set for knowledge of information and communications technologies considered obligatory for teachers and students and a mechanism for monitoring them;
- Development of textbooks, instructional materials, and methodological guides on the use of information and communications technologies in education;
- Development, assessment, dissemination, and elaboration of application mechanism of new generation electronic textbooks;
- Development of modular education components on information and communications technologies, and elaboration of a mechanism for applying the respective modules in professional development programs.

General education schools should be provided with the pedagogic staff within the next 5 years as a result of carrying out the Development Program on Pedagogic Staff Provision within the General Education Schools Network in 2005-2009, which was approved by the Order of the Cabinet of Ministers of the Azerbaijan Republic on November 4, 2004.

Significant lack of teaching staff in general education schools should be specially emphasized when the existing problems in general education system are mentioned. Currently, there is a need for up to 5 thousand teachers in remote villages and foreign languages are not instructed in around 500 schools due to the lack of teachers with relevant education. Another fact related to the existing problems in pedagogic staff provision is the low teacher-student ratio. On the one hand, there is a need for thousands of teachers in our country; on the other hand, there are 9 students per teacher. An analysis proves that while the lack of teachers is a problem in rural areas, the problem in cities, especially in Baku is the abundance of teachers. This makes it necessary to take the relevant steps in terms of selecting and placing the teaching personnel.

Another aspect that negatively affects the quality of education is the considerable number of teachers who have passed their retirement age. Thus, as a rule, these teachers cannot accept innovations, adapt to modern requirements, and shun the old thinking style. The efficiency

coefficient of the majority of them is quite low. Only in general education schools 15% of the teachers are at retirement age. In this regard, it would be applicable to send the people dealing with pedagogic activity to retirement once they reach the relevant age.

Further, along with the skilled, influential teachers, there is also sufficient number of teachers who have chosen this profession by chance, don't like their work, are not necessarily knowledgeable in their fields, have a low professional level, and can't employ contemporary teaching methods, new technologies and innovations in pedagogic process. In this regard, the best option is to apply the licensing for teacher activity, which has proven successful in international experience.

In order to speed up the solution of and more effectively resolve the serious problems in pedagogic staff provision the following would be quite advisable to be considered and approved on the state level in the prospect: ensuring that recently trained primary education teachers also instruct foreign language classes, training specialists with double professions, exempting the young specialists from military obligation if they are sent to the schools located in remote populated areas, and uninterrupted maintenance of the concessions and stimuli applied to the pedagogic staff members in rural areas.

Managers of a great number of educational institutions, including the general education schools do not prove themselves as to their competency and professionalism. The shortcomings, negative cases, anti-pedagogic actions in schools are mainly related to this fact. In this regard, it is the time to seriously consider the attestation of managers of educational institutions.

Nearly two thousand teachers have been sent to remote village schools under incentivebased conditions in 2005 and 2006 within the framework of the corresponding program in order to eliminate the problems unresolved for a long time with regards to providing the general education schools with pedagogic staff members.

The Program aims at sending 1,308 teachers every year between 2007 and 2009 to the rural areas where motivational activities apply.

Material and technical, and instructional resources will be fundamentally improved, content of the education in this area updated, and pilot projects on inclusive education will be implemented in the institutions where children in need of special care will study in the next five years (2005-2009) under the Development Program on organizing education for Children in Need of Special Care in Azerbaijan Republic approved by Decision #20 of the Cabinet of Ministers on February 3, 2005. The goals of the Program are the following: fulfilling the right to education of children in need of special care, realization of the transition to integrated (inclusive) education, creation of equal opportunities for the education of all children in educational institutions, strengthening the social protection of children under the State patronage,

countrywide registration and enrollment in education of children in need of special care that represent all categories in accordance with the relevant classification, and bringing to conformity the material and technical, and instructional foundation of special educational institutions to modern standards.

With regards to the implementation of the Program, the Ministry of Education has already launched 3 inclusive education projects with the World Vision, a US organization, UNESCO and International Medical Corps. In general, these 3 projects have included nearly 200 pre-school and school-aged children in need of special care.

In accordance with the Program, in 2006, additional buildings have been constructed in 2 institutions and a gymnasium was built. There has been a capital repair work in 8 institutions, and 8 schools were provided with the required equipment. Further, 20 schools were equipped with modern computers and 8 institutions were provided with vehicles.

The followings are planned under the Program in 2007: capital repair, rehabilitation and provision of some 21 schools with equipment, creation of rehabilitation rooms and providing relevant equipment to 10 schools, as well as providing vehicles for 4 schools.

In Azerbaijan, education and development of children, especially of the talented ones, has become the greatest priority of the state and this is still the case. As a result of the public care and attention to the children, State Program on Development of Creativity Capacity of Children (Youth) with Special Talent (2006-2010) was approved by the Presidential Order #1414 dated April 17, 2006.

In recent years, the network of new types of educational institutions has been largely expanded in order to more effectively provide education for gifted children and youth in Azerbaijan. Currently 53 lyceums and gymnasium-based general education schools by technical, humanitarian, science and arts spheres function for talented and skilled children in Azerbaijan, 37 of these institutions were opened during the independence years. More than 2,000 pedagogic staff members provide instruction for 32,967 students studying in these educational institutions by various specialties.

Recently, new curriculum and syllabi have been developed and employed; pedagogic personnel were improved on a yearly basis in order to adjust the content of education in lyceums and gymnasiums to modern requirements.

As a result of the implemented activities, 70 % of the graduates from new types of educational institutions are admitted to higher educational institutions with high testing scores. In recent years, our schoolchildren have won 13 gold, 18 silver, and 50 bronze medals on chemistry, biology, physics, math, computer literacy subjects in world Olympiads and international knowledge competitions. Majority of those students have been granted entry to the top

universities of the world without any admission exams, and currently they study in those institutions.

The lyceums of the CAG education company operating in Azerbaijan, Modern Education Complex, which has recently started functioning, the XXI Century General Education Center, as well as general education schools attached to Baku Slavic University, Khazar, Western, and Odlar Yurdu Universities play a worthwhile role in identifying talented children and involving them in special programs.

The state program was approved taking into account the need for more systematic planning of the world with talented children. The goals of the Program are the following: implementing special activities in order to identify in a timely manner and provide the development of existing talent potential in general educational institutions of the Republic, involving the public closely in finding a solution to this important issue, and strengthening the public care to the development of talented children and youth.

The principal objectives set forth in the Program are as follows:

- To identify optimal ways of revealing the talented children and youth, create a productive activity mechanism in compliance with modern requirements on the work with talented children and youth;
- To ensure fundamental research on improving the work with such children and youth;
- To achieve the opening of new types of educational institutions for talented children and youth in all regions of the Republic;
- To implement the required activities in order to strengthen the material and instructional foundation of new types of available educational institutions;
- To learn and apply the leading experience existing in foreign states on the work with talented children and youth;
- To implement a set of complex actions in order to improve and renew the content of education of talented children and youth;
- To ensure the creation of the normative and legal foundation of the new types of educational institutions that meet the modern requirements, and implementation of the stimulating activities for talented children and youth, as well as pedagogic staff working with them, and strengthen the Olympic movement.

The Action Plan developed by the Ministry of Education on implementation of the Program reflects the planned activities and necessary steps in order to implement the following activities:

- Creation of the relevant information database and Internet portal on talented children and youth studying in the educational institutions of the country, analysis of the collected data and development of appropriate proposals.
- Identification of talented children and youth, implementing scientific research devoted to the problems of determining specific working forms with them.
- Implementation of a systematic activity on training school psychologists for general education schools.
- Improvement and upgrading normative and legal foundation of the new types of educational institutions where talented children and youth study.
- Preparation of a set of complex actions in order to ensure business cooperation between the public higher educational institutions and the new types of public educational institutions.
- Preparation and submission of the agreed proposals with regards to organizing a Junior Academy for talented and skilled children;
- Researching the existing possibilities for organizing new types of educational institutions that do not exist in regions and cities of the Republic, and preparation of relevant proposals.
- Carrying out professional development activities for pedagogic staff members of general educational institutions devoted to the characteristic features of working with the talented children and youth.
- Awarding talented youth that successfully complete the general education courses with gold and silver medals, and arranging for tile identification of stipends for the most talented students by each region and city.
- Creation of the centers for subject-specific Olympiad preparation for talented children and youth in regions and cities, and involving high level and professional teachers and specialists in these centers.
- Organizing a School for Olympiad Resources within one of the new types of educational institutions operating in Baku and preparation of the relevant legal documents.
- Preparation and submission of the proposals on identification of certain privileges and considering stimulating activities 'for the winners of Republic and world subjectspecific Olympiads, internationally known subject-specific competitions, and the teachers and specialists that prepare them; and the relevance of exemption of the students from certain classes during the certain period of the academic year when they prepare for world subject-specific Olympiads.

- Preparation and printing of model Olympic tasks, tests on various subjects for talented children and youth, purchasing programs, methodological literature and instructional materials devoted to the present-day problems on organizing the work with talented children and youth in other countries, and translation of these materials into Azerbaijani under necessary circumstances.
- Organizing the Republic conference of Talented Children and Youth in every academic year, and approval of rules for organizing this event.
- Preparation and submission of the proposals on correspondence schools, instructional summer and winter camps for talented children and youth, and drawing up relevant regulating documents.
- Preparation and submission of the proposals on founding special awards for young people who have attained high achievements in the fields of science, education, arts, and sports.
- Establishment and organizing effective functioning of "Young talents", "Intellect", "Merry and Quick-witted" Clubs, student scientific councils in regions and cities.
- Organizing knowledge and sports contests, junior Olympiads, festivals, and competitions with participation of talented children and youth in regions and cities.
- Wide coverage of the work with talented children and youth, current problems on mass media faced in this area and arranging for special programs.
- Preparation and submission of the proposals on founding a scientific and methodical journal titled "Talent" in the Republic.
- Improvement of material, technical, and instructional foundation of 32 lyceums and gymnasiums where talented children study and supplying them with the necessary equipment.
- A total of 32 schools are planned to get capital repair, 75 chemistry, physics and biology laboratories will be established in the relevant institutions.
- The expected outcomes from implementation of the Program are the following:
- Productive activity mechanism will be established, which will meet the contemporary requirements in discovering talented children and youth, and ensuring their development taking into account their potential capabilities;
- Normative and legal foundation regulating all the activities in the field of working with talented children and youth will be created and applied, and the need for specialists on psychological services will be gradually eliminated;
- State care to' these children's education, their development and growth will be intensified more, and the public, including international and non-governmental

organizations, philanthropists, sponsors will focus more attention on this important issue;

- Great opportunities will be available on scientific and pedagogic research in order to improve and better the work carried out with talented children and youth, special tests and diagnostic methods that enable to identify the talent of children and youth in various fields will be developed and printed;
- New types of educational institutions for the children with special talent and skills will be established in regions, specific actions will be taken in order to discover every single talented child and youth at the right moment and involve them in special educational programs;
- Material and instructional foundation of the lyceums, gymnasiums and other relevant institutions where talented children and youth currently study will be strengthened, close business ties between these educational institutions, and scientific centers and higher educational institutions will be ensured, and notable figures in science, education, culture and arts will be involved in the work with talented children and youth;
- Olympic Movement held with participation of talented children and youth will be expanded, supplementary activities in determining privileges for children with special talent and skills, including the Olympiad winners, also stimulating the work of their teachers will be carried out;
- It will be ensured that the students in higher and secondary profession pedagogic schools acquire the necessary methodology to work with talented children and youth;
- Professional level of the teachers working in general education schools will be improved through providing in-service training courses and specially designed programs covering the major features of the work with talented children and youth;
- New curricula and syllabi, textbooks and instructional materials will be developed in order to more productively and interestingly organize the education of talented children and youth;
- Leading experiences of the foreign countries in the field of working with talented children and youth will be learned and applied;
- Consistent activities will be implemented in promoting and covering the work carried out with the talented children and youth.

State Program on Assigning the Children in the Public Children Institutions to Families and Alternative Care in Azerbaijan Republic approved by Order # 1386 of the President of Azerbaijan Republic on March 29, 2006, is aimed at implementing the activities on deinstitutionalization in country.

At the same time, the Program foresees hosting of children not only in boarding schools and special educational institutions, but also in families based on the existing international experience, their development in the alternative care centers which propose services close to a family environment, and their education in regular educational institutions with the children of the same age.

The major goals of the Program are assigning the children in public children institutions to families, establishment and ensuring effective functioning of the mechanisms for organizing alternative care, taking into account the necessity for growing up in happiness, love and understanding surrounded by family environment for the full and harmonious development of child's personality as stipulated in the UN's Convention on Children's Rights.

The Program foresees the following: improvement of the normative and legal framework, identification of the main directions for assigning in public children institutions to families, assigning children to families, protection of their rights and applying flexible mechanisms for their social protection, gradual replacement of children's homes and public children institutions of the boarding-school type with the family-based children's social services system, financing family-based children's social services and providing financial support to the families that host children in order to largely use the stimulating factors, training social workers that render children's family-based social services by largely employing the staff capacity of the public children institutions, preparation of serious monitoring mechanism for children's entry to these institutions, given that children's ending up with the public children's institutions is the last option, specification of the criteria for admissions to public care and intensifying the monitoring for complying with these criteria, implementation of systematic and preventive steps among children and families representing risk groups (from the standpoint of families' handing their children to these institutions) in order to prevent the increase of children in public children's institutions, involving children assigned to families in education, providing public health and rehabilitation services for these children, and ensuring productive collaboration with the state, and non-governmental and international organizations in resolving the de-institutionalization problems.

It is expected that as a result of the implementation of the Program, it will be possible to develop children under the state care in family environment, defend their rights and social protection, decrease the number of children in public children institutions and the number of these institutions, and replace children's homes and institutions of boarding-house type with the family-based children's social services system.

Last year a number of activities were implemented in terms of carrying out the Program. Proposals on specifying the criteria for admissions to the public children institutions were submitted to the Cabinet of Ministers. The Ministry of Education's Plan for Action on Implementation of the Program was approved. Coordination Council composed of the representatives from the Ministry of Health and Ministry of Labor and Social Protection of People, State Committee on Family, Women and Children's Problems, international organizations, local NGOs was established. Boarding-schools operating under the Ministry of Education have been monitored. Joint Action Plan developed by UNICEF, Ministry of Education, Ministry of Health, and the Ministry of Labor and Social Protection of People, as well as State Committee on Family, Women and Children's Problems are implemented under this Plan.

#### 4.2. Challenges in general secondary education

The major challenges in secondary education are the followings:

- Poor conditions of material, technical and instructional basis,
- the need for construction of new school buildings, and
- capital repair work of the existing schools.

More than 300 school buildings in the country are fully unsuitable. A total of 85 % of the schools do not have a heating system at all. In Baku, 74 % of the general education schools function on a double-shift routine. 32.5 percent of the overall student population study during second shift. 108 of the general education schools (34 %) are based in buildings that were not intended for schools, do not meet modern requirements, and satisfy the sanitarian and hygienic norms.

The student density in great majority of the general education schools in the capital is often higher than the fixed norm. In separate schools the density is even higher and 40-45 students per class. The high student density has resulted with offering classes in three, even four shifts. During the last ten years, the number of schools operating in one shift has decreased from 41 % to 13 %. During the same period, the number of schools functioning in three shifts had a significant increase from 28 to 80. Thus, the overall number of student population studying in second shift constitutes 42 %.

The general number of students in numerous schools is 2-3 times higher than the real projected capacity. In a number of schools the situation is even worse. Hence, the student population in 19 schools exceeds 2,000 students, in 9 schools the number of pupils is over 2,500

people and 4 schools have over 3,000 students. In general, the tendency of increasing student population against the schools' projected capacity continues.

Based on the current international research, the following four aspects affect the quality of education: family, environment (children of the same age), information, and school. Though this is strange, it is reality and one cannot disagree with this outcome. Taking into account that 2.2 million people in our country, which constitutes 26 % of the overall population is involved in education sector, it becomes more evident how seriously this aspect is for all of us.

#### 4.3. Long-term activities in general secondary education

First of all, improving the quality of general secondary education will be one of the major lines of activity. The following activities are foreseen in this regard: launching the pilot testing of new subject curricula, creating equal opportunities and applying innovations in general education, continuing the process of making a transition of schools to a 5-day working schedule, applying a new system on assessment of student achievements, expansion of experiments on practicing centralized exam mechanisms, applying a new financing mechanism in schools, continuing the work on strengthening the material and technical foundation, improving the learning conditions in schools, decreasing multiple shifts and student density in this aspect, development of normative and legal framework for issuing multiple-degree education documents to secondary education graduates, practicing new mechanisms on improving school and parent relationships which positively influence the quality of management, preparation and application of new normative and legal documents which ensure more active participation of School Councils in the management process, and implementation of activities, such as rationalization of student population in schools with few students and enforcing the student transportation mechanism based on the international experience.

What other innovations would we like to implement in general education in the nearest future? For instance, we have been considering issuing multiple-degree education documents to graduates for a long time. Where did this idea emerge from? Certainly this policy is successfully enforced in the experience of a number of world's leading countries. This is true that not all the learners enjoy equal possibilities. At least it would be naive to expect all the graduates enter higher educational institution. These multiple-degree certificates would eliminate the cases of formalism in assessment of each student's learning outcomes and artificial identifications, and somehow regulate and ensure the students' choice of the right course.

Currently in our country there are 356 schools with less than 30 students (305 primary, 40 basic and 11 general education schools), 225 schools with less than 50 students (78 primary, 120 basic and 27 general education schools), 561 schools with less than 100 students (22 primary,

300 basic and 239 general education schools). That is to say, in general there are 1,142 schools with less than 100 students in them. It is high time to make a serious analysis of the school rationalization plans, and first of all, adopting justified decision on these schools. In developed states of the world, school rationalization and student transportation mechanisms are successfully enforced.

Despite certain positive steps taken recently, the situation with regards to the regulation and development school and teacher relationships that positively affect the quality of management is not satisfactory. Even the establishment of PTAs has not made a remarkable change in this area. Parents mostly come to schools when there arise problems with their children or when they are invited by someone. They do not pay much attention to learning and development issues. Furthermore, available facts prove that a majority of our school managers is not interested in organizing this activity. In developed countries, including the U.S., European states, PTAs take an active part in managing the school, adopting the decisions, design and implementation of the projects focused on development, raising supplementary funds, even in making changes to the content of education. The most important duty of the local educational institutions and schools is to carry out effective activities in order to raise the parent and teacher relationships to a new quality level.

#### 4.4. Long-term activities

The followings are long-term activities for improvement of general secondary education:

- Development of new curriculum;
- Development of new generation textbooks and reading materials;
- Creation of equal opportunities and enforcing innovations in general education;
- Improvement of the structure of general education system;
- Ensuring the transition of schools to a 5 days working schedule;
- Development and enforcement of a new mechanism on 'teacher training;
- Establishment of a new system on assessment of student achievement;
- Creation of the education management information system;
- Improvement of the management mechanism;
- Supplying schools with ICTs, and achieving the goal of "1 computer per 33 students" ratio;
- Development and enforcement of new financing mechanisms in schools;
- Reinforcing the material and technical framework, and supplying with modern equipment.

### 5. Extra-scholastic education

Extra-scholastic educational institutions play an important role in expanding the creativity capacity of general education students in various fields, and their artistic, technical, ecological, physical, and moral education. The role played by the children and youth sports schools is especially noteworthy in attaining the achievements in the field of sports in Azerbaijan. Nevertheless, observations evidence that the cases of formalism still remain considerable in the work of these institutions. Imagine that 331,878 students were involved in 384 extra scholastic institutions in the country. This number represents 32 % of the overall student population in Grades 5-11. In other words, every third person has been involved in these study groups. An analysis shows that the students' involvement in these groups is of formal nature in most cases. Many groups are led by the people that have no relationship to the characteristics of these circles. The situation in this field should be carefully considered and effective actions need to be taken in eliminating the existing problems.

#### 5.1. Activities implemented in extra-scholastic education

In 2006, trainees of sports and chess schools have achieved successful results in national and world level competitions. The draft of Development Program of children and youth at sports and chess schools was prepared. A textbook for chess schools, also syllabi for a number of sports were developed, printed, and delivered to respective sites. A national competition was organized among sports and chess schools in order to discover talented young sportsmen. Drawing contests were organized among the children on various themes.

#### 5.2. Challenges in extra-scholastic education

Despite certain activities implemented in the field of extra-scholastic education, there still remain quite serious problems. Hence, the network and orientation of educational institutions do not meet the modern requirements. Further, a great majority of the institutions does not enjoy a foundation, and the others that have an improper material, technical, and educational basis. Moreover, the relationship with schools is poorly organized. There remain quite severe problems with staff development, and the specialty and professional level of the staff are mostly not in line with the orientation of the institutions. The curriculum in extra-scholastic educational do not meet modern requirements, the students are formally involved in these institutions, normative and legal framework is incomplete, and the methodical provision is poor. Urgent activities will be identified in order to eliminate these problems.

#### 5.3. Long-term activities in extra-scholastic education

The network and orientation of extra-scholastic educational institutions need to be optimized, and its normative and legal framework improved. The other major objectives are the following: carrying out fundamental actions in the area of methodical provision, monitoring the activity of educational institutions, elimination of formalism cases in organizing groups and circles, development of new curriculum that meet modern requirements in extra-scholastic education, strengthening material, technical and instructional foundation of these institutions, strengthening the relationships with schools, and development and enforcement of a new mechanism on staff development.

## 6. Vocational and Professional Education

A priority area for the state, the development of this educational stage should fulfill the mission of providing specialists for developing economy, industry, and production areas. Currently 107 vocational and professional educational institutions, including 46 vocational lyceums operate in country. A total of 23,818 students study and 6,760 managers, engineering and teaching staff, and masters on production training work in these institutions.

#### 6.1. Implemented Activities

In the recent years a number of relevant activities have been implemented in improving the vocational and professional education system, upgrading the normative and legal framework, optimizing the network of educational institutions, and training competitive, highly specialized professionals that meet the requirements of the market-based economy and labor market. Hence, the content of the vocational and professional education has been partially improved, a new classification system enforced, more than 40 specialties added to this system that meet the modern technologies.

The project on in-service training of vocational and professional education specialists for 7 countries (Central Asian and Southern Caucasian states), including Azerbaijan is implemented in order to improve the content of vocational and professional education, upgrading teaching methodologies, and learning the international experience. In this regard, the Ministry of Education and the Center for Support to Educational Reforms have jointly organized a seminar funded by UNESCO on March, 2005, titled Existing Situation of Vocational and Professional Education in Azerbaijan and Development Prospects in this Field. Further, the European Training Foundation have conducted a series of workshops on financing vocational and

professional education, development of state standards, teaching a profession to adult population, and raising their professional development level.

Taking into consideration the importance of vocational education, the Government approved the "State Program on the Development of Vocational Education (2007-2012)". The program plans to strengthen material-technical basis, to form new economic relations, to upgrade management and staff preparation, to raise public status of vocational education, and to update its essence relevant to world standards.

The program sets out to organize vocational education complex that trains on tourism and hotel management in Ismailli region in 2008, to construct a new building equipped with modern facilities; to update infrastructure of vocational institution on agriculture and production in one of the regions; to reconstruct material-technical and teaching basis of vocational institution that prepare personnel on tea and vegetable production in one of the regions; to entirely repair and equip vocational education institution on fruit-vegetable production in another region; to establish infrastructure of vocational school in the sphere of machine building, industry and ICT in one of the urban and rural area; to supply vocational schools number 7 and 12 with appropriate facilities in Baku; to organize preparation of staff on ICT and on other modern fields.

There is a close collaboration with international organization on the development of vocational education. It is planned to realize several projects with UNESCO, World Bank, European Education Foundation, International Labor Organization, Japan Bank for International Cooperation, International Cooperation "DAEWOO" of South Korea.

As to the Program, in 2008, a total of 8 vocational schools were reconstructed and provided with the necessary equipment. Besides, in order to the develop tourism and hotel business Gabala Tourism and Hotel Vocational Training Center was established.

It was decided to apply new financing mechanisms at some vocational education institutions in Baku from 2008 on. These financing mechanisms have several advantages such as giving independence to vocational schools with regard to financing. Financing enables vocational schools to take real necessities into account. School officials are involved in a budget formation, and it ultimately enables to efficiently utilize allocations pertinent to needs. Furthermore, it enables to effectively organize retraining of teachers, involving them to trainings and seminars abroad, purchasing teaching materials. There is a favorable condition to bring extra-budgetary resources to school and transparently utilize them.

#### 6.2. Challenges

The major challenges in vocational and professional education are the followings: insufficiently effective curriculum, lack of textbooks printed in Latin script, lack of conformity

between the staff training and labor market demands, lack of specialists, insufficiency of ICTs in these institutions, lack of correspondence between material and technical foundation, and modern requirements, lack of technical supplies and equipment, insufficiency of financial resources, and other issues.

Furthermore, the importance and advantages of vocational and professional education that play an exceptional role in building the social and economic infrastructure are still not sufficiently recognized.

- Material, technical and instructional foundation of the vocational and professional educational institutions does not satisfy modern requirements. The institutions have not received technical and other equipment, visual and technical aids, benches with modern construction, machinery and other mechanisms, agricultural equipment, etc. within the last 16 years. Currently, almost 100 percent of the equipment and supplies used in vocational schools and professional lyceums are outdated. Further, the situation regarding the computerization of teaching process is not satisfactory.
- The buildings of vocational schools and professional lyceums have not undergone a capital repair since 1990;
- Existing curriculum does not meet modern requirements;
- There is a lack of textbooks and instructional materials on major subjects;
- The financing mechanism for vocational and professional education is not sufficiently effective.
- Although the funds allocated from the state budget increased, it still does not fully meet the expenditures required for development and strengthening of instructional and material foundation, purchase of raw materials, fuel and lubricating materials, social protection of students, capital repair of the buildings, plants and other constructions, and professional development costs of engineers and the faculty members.
- Nearly 14 thousand IDPs inhabit the instructional buildings and hostels of 69 % of the institutions;
- New mechanisms on monitoring and evaluation of the activity of vocational and professional educational institutions are not fully enforced;
- Marketing services in the educational institutions have not been arranged;
- Staff training is not in line with the labor market demands, there is a lack of specialized faculty, in-service training does not meet the modern requirements, and the professional level of engineers and teaching faculty is not satisfactory;

- There is a lack of scientifically founded forecasting system of the long-term service market requirements based on the orders from the personality and society.

The Ministry of Education maintains close collaboration with a number of international organizations in order to eliminate these problems. The organizations that the Ministry cooperates mainly in vocational and professional education are UNESCO, German Technical Cooperation Society, Asian Development Bank, and the Japanese Bank of International Cooperation.

In 2005, the Ministry of Education has organized two conferences (in Paris and Baku) on the development of education in Azerbaijan, and Memorandum was signed between UNESCO and the Ministry with participation of UNESCO General Director. Along with other areas covered under the Memorandum, an Action Plan was developed for 2006-2007 on improving the vocational and professional education. The Plan foresees analysis and updating of curriculum on vocational and professional education, and establishment of a new system on in-service training in this area.

German Technical Cooperation Society implements an inter-regional project on improving professional development skills of teachers and masters on production training of the vocational and professional educational institutions in 7 countries (Central Asian and Southern Caucasian states), including Azerbaijan. A total of 4 specialists that have a relevant experience in conducting workshops at the international level on vocational and professional education in our country have attended special seminars organized by the Society in 2004-2006 in Tashkent, Bishkek, Dushanbe, and Astana. These experts have received certificates for conducting national seminars. The conference hall of the Azerbaijan Teachers Institute was set apart for conducting the seminars funded by the German Technical Cooperation Society, renovated, and provided with necessary equipment.

In March-April 2004, and April-May 2005, some 50 major subject-specific specialists have attended 4 seminars each lasting 1 week through the project funded by the Society. During the seminars held in 2004-2005, a total of 1,093 participants, including 383 major subject specific teachers and 70 masters on production training have improved their professional level.

In April-May of the current year, there is a preparation under way for conducting 2-week seminars in Baku and other regions.

In early 2006, the Asian Development Bank Mission was in Azerbaijan, and made a research on the new project to be designed. Along with other areas, the produced report also proposed including the development of vocational and professional education as one of the components in the future project. These proposals were submitted to the Government of Azerbaijan and discussed among the relevant Ministries. In April of this year, the second ADB

mission was in Azerbaijan, and submitted the corresponding draft Memorandum to the Ministry of Education in order to develop a project. There is an ongoing work in this area.

The Ministry of Education has started collaborating with the Japanese Bank of International Cooperation since March, 2005. The Ministry and Japanese Bank of International Cooperation has signed an implementation protocol of the pilot research on August 12, 2005, for designing a Development Project of Vocational Education.

According to the implementation protocol, a research group composed of 5 people has been to Azerbaijan in October 2005 and January of this year and researched the activities of 93 vocational and professional educational institutions, held conversations with the directors, engineers and teaching staff of these institutions, and surveyed some 2,681 students studying various programs and courses. The report developed by the research group analyzed the existing situation in the status of vocational and professional education. The report has identified the followings as major problems in the field of vocational and professional education: lack of material, technical, and instructional foundation that meets modern requirements, almost full unsuitability of teaching supplies, equipment, machines and mechanisms, lack of knowledge and skills of engineers and teaching staff, lack of the graduates' necessary knowledge and skills, and other problems.

Further, the Report has described the possible courses of support to be provided by the Japanese Bank of International Cooperation. The submitted document suggests the following areas for support: organizing trainings for directors and teachers of the vocational and professional educational institutions, providing selected 20 pilot institutions with equipment, rehabilitation and supply of existing workshops in those institutions, establishment of new workshops, development of National Strategy, upgrading the curriculum, development of methodologies for identifying the labor market requirements.

As it appears, Japanese Bank of International Cooperation has carried out research in 87 % of the country's professional and vocational educational institutions, disclosed the current situation, identified problems, and proposed directions for development.

Today's reality is that the building conditions, material, technical and instructional foundation of the vocational and professional educational institutions do not meet the international requirements at all in terms of training the contemporary skillful personnel. At a time when technological innovations change annually and when the developed states employ highly modified equipment and supplies, our institutions have received the relevant plants, benches, technical equipment, instruments and other supplies during the 1970s of the last century for the last time.

The experts have emphasized the followings in their concluding comments: unsuitability of material and technical foundation, lack of necessary financial resources for maintenance and development of the institutions, insufficiency of the teaching faculty's knowledge and skills on new technologies by contemporary requirements, lack of quality in training the students on their majors, insufficiency of relevant conditions for doing internships, and unsatisfactory connections with the production fields.

It is impossible to disagree with these outcomes reached by the international experts. Let me give you just a simple example: if there aren't applicable raw and other materials, technical supplies for training specialists, such as computer typists, modelers, tailors, parquet floor masters, carpenters, stonemasons, plasterers, welders, drivers, etc. and if the funds are purposely not allocated to purchase these materials, what specialist training can we talk about?

Currently in our society there is such a tendency that when one mentions post-secondary education, everyone focuses on higher education as a rule. Certainly, the role and specific weight carried by the specialists with higher education in social and economic development is indisputable. However, the modern world experience, for example the experience of developed states, such as Germany, France, Japan and Turkey prove that it is not worth mentioning the dynamic development of a state without training skillful specialists that acquire new technologies for different fields of activity. If 40-60 % of the graduates in these countries are included in vocational and professional education, in Azerbaijan this number constitutes only 5-8 %.

Significant steps have been taken in this respect, and a State Program covering the development of vocational and professional education system and the strategies for modernizing it has been developed and submitted to the Government early this year.

The Program foresees implementation of the following: establishment of the material, technical and instructional foundation in line with modern criteria, enforcement of new financing mechanisms, training engineers and teaching faculty mastered in modern technologies, design of new curriculum and textbooks for this system, and training skilled specialists that would meet the labor market needs. There is no doubt that the development of this phase of education that is quite necessary and strategic for our country will always be in the focus of attention of the state.

#### 6.3. Long-term activities

Development prospects of the vocational and professional education of Azerbaijan have been identified based on the analysis conducted by Ministry of Education, proposals submitted by the respective Ministries, recommendations made by international organizations:

Improvement of normative and legal foundation;

- Development of a national strategy on development of vocational and professional education;
- Coordination of the efforts made by the state institutions which are customers and consumers for personnel, economic and industrial fields, and international organizations implementing various projects in Azerbaijan;
- Strengthening of material, technical and instructional foundation of the existing educational institutions, providing them with modern equipment and supplies, and Information and Communications Technologies;
- Continuing efforts to optimize the network, establishment of new graded educational complexes taking into account the social and economic capacity of the regions;
- Updating the content of the content of vocational and professional education in accordance with the contemporary requirements, and development of new curricula;
- Design of new textbooks and instructional materials for major subjects that reflect new technologies and meet contemporary requirements;
- Adjusting the training of personnel to the labor market needs, developing the volume and profile structure of the personnel training in accordance with the needs of the public and labor market;
- Improvement of the training of engineers and teaching faculty for vocational and professional educational institutions;
- Development and applying of new curricula on in-service training of the managers, engineers, and teaching faculty of the educational institutions;
- Establishment of a forecasting system for training specialists in vocational and professional education in line with the labor market needs;
- Sending the specialists in vocational and professional education to foreign countries on study tours in order to learn the international experience;
- Improvement of the management mechanism;
- Development of a new economic model for financing vocational and professional education;
- Organizing marketing services in educational institutions.

## 7. Secondary vocational-professional education

There are 56 public institutions for secondary vocational education in Azerbaijan and 53,745 students are enrolled in various specializations at these institutions. These institutions

employ roughly about 6,897 teachers. In addition, 3,127 students are likewise enrolled in 4 private institutions of secondary vocational education.

The purpose of secondary vocational education is to graduate students enrolled in fields of production and services, with minimal costs and completion within a short span of time. Structural changes have been brought about into this segment of specialist development, to which its structure has been optimized, its core curriculum renewed, where new specializations have been introduced into the existing classifiers in connection with implementation of the program on regional social-economic development, new generation national standards of education and corresponding teaching plans have been developed and put into practice for every specialization.

In 2006, two secondary vocational schools (Pre-school Teachers' School and Azerbaijan State Pedagogical College) have granted accreditation, and the decision was made to grant applicable certificates to these educational institutions based on their accreditation results.

#### 7.1. Challenges in Secondary Vocational Education

Technical materials and teaching methods are no longer appropriate to meet contemporary teaching requirements, the number of textbooks and educational aids are insufficient owing to the institutions financial problems, the allocation of financial resources for development of secondary vocational education is insufficient, institutions are not equipped with ICT, and the linkages between secondary vocational institutions and its employers are not wellorganized.

There is a dual perspective on secondary vocational education in view of its significance. At present, owing to rapidly diversified labor market demands in the market economy, there is the constantly perceived need for junior specialists. When deemed feasible and such specialists graduate within a short period of time, hence lowering the costs. Practically, the preference for the staffing of institutes with graduates of higher education for a wide spectrum of occupations, particularly in the fields of medicine, construction, communication, oil-energy& services, etc. is not only impossible but needless. Therefore one of our primary goals is working towards the structure & development of secondary vocational institutions in accordance with standards that are up to date & contemporary.

It should me mentioned that a significant rise of interest in certain specialization has been observed among the youth, including communications, electronics, oil-energy, transportation and advertising. Accordingly, the number of applicants in contemporary specialties at secondary vocational institutions has increased by approximately thirty five percent (35%) since 2001. Hence, one of the key tasks in this field is to increase in the adequacy of admission plans to

demands and undertake in the development of specialists through the establishment of close linkages with the corresponding areas of production.

#### 7.2. Long-term activities in secondary vocational education

Future directions of development for the improvement of secondary vocational education are the followings:

Improvement of the subject-matter content of secondary vocational education, development of an enhanced curriculum which enables for the preparation of competitive specialists;

Establishment of a system for the development of specialists in secondary vocational education which addresses the demands of the labor market and are in line with the development perspectives of the society;

Strengthening of ICT provisions for educational institutions; Continuance in the network optimization of secondary vocational education institutions; Establishment of a contemporary financing system; Enhancement of management and planning skills in educational institutions; Introduction of marketing services in educational institutions.

8. Higher education

49 institutions of higher education operate in Azerbaijan, including 14 private educational institutions. Twelve thousand (12,000) teaching staff and personnel are involved in the education of one hundred thirty thousand (130,000) students in these institutions.

#### 8.1. Accomplishments

Azerbaijan moved to a two-level higher education system in 1994. Positive experience has been gained in this regard for the past period.

Azerbaijan joined Bologna process in 2005. In the frame of the Bologna process for integration into the European system of higher education, actions were taken for the development of the multi-step system in specialist education namely, exercising control over the quality of education (attestation and accreditation), enhancing for the mobility of students and teachers, recognition of diplomas & certificates, employment of graduates from institutions of higher education, adult education and other areas. A working group was established to develop normative documents in respect to the commitments under the Bologna process as well as the

framing oaf plan of activities for 2006-2010. Four institutions of higher education have already received accreditation and six institutions are currently under accreditation process.

The work on improving the subject-matter content of the two-cycle system of higher education (Baccalaureate & Master's Program) has already been implemented. A guideline was developed in respect to the arrangement of education at institutions of higher education based on the credit system. Pilot implementations of the credit system in education commenced at ten (10) institutions of higher education encompassing thirty (30) specializations and three thousand (3,000) students. A national seminar, "Implementation of credit system in the higher education institutions of Azerbaijan" was held in cooperation with the UNESCO. The staff of the Ministry of Education has engaged in this process at higher education institutions in an effort to effectively address & eliminate problems resulting from the implementation of this credit system as well as work towards the development of recommendations for the further enhancement of the existing guidelines as stated.

The advantages of the establishment of a system of credits are as follows: each student designs an individual schedule of study to determine the sequence of courses of his/her study, thus ensuring the student's direct participation in the teaching process; each student reserves the right to select the teacher of his/her own choice in various subjects within the resources of the institution of higher education, which in turn prevents potential negative cases arising from teacher-student relations; the discharge of academic amounts outstanding under the credit system is only permissible upon the retaking of the same subject. This preempts cases wherein students receive passing grades without actually taking the course, thereby eliminating a number of other negative cases that may result, provides conditions for the effective mastery of a subject; the teachers' work load is determined by the students' individual schedule of study, serving as an incentive to teachers; the requirement needed for an individual teacher at which to conduct lectures, practical (laboratory) sessions that requires for the recruitment of highly qualified specialists in the teaching process and thus optimizing distribution of teaching loads; ensures in the regulation of teaching plans and programs that is primarily compatible to the respective documents of higher education institutions in Europe. Tills in turn promotes for the free mobility of students between institutions domestically and in Europe. As stipulated in accordance to the agreements concluded amongst institutions of higher education, students from higher education institutions in the republic of Azerbaijan can be transferred to higher education institutions in Europe for a period of one (1) semester or one (1) academic year, to which their earned credits will be mutually recognized by those institutions. Subsequently, these "mobile students" are eligible to obtain dual diplomas. In addition, institutions of higher education in the Republic of Azerbaijan will gain recognition as their diplomas will be accepted in Europe thus increasing the opportunities for foreign citizens to study in higher education institutions in Azerbaijan.

Students are likewise provided with opportunities to obtain secondary specializations during a single academic period provided that the specialization be closely related to their primary field of study; Moreover, exception all endowed students are allowed to complete their study program of choice prior to the pre-determined academic term by enrolling in more courses as mentioned above; and in view of the fact that students are given the liberty to study and reenroll in courses, they can complete their education within a certain period of time devoid of being expelled from the institution of higher education; the new structure of the enclosure to the diploma and course descriptions, the establishment a system of credits for each course and its assessment in accordance with European standards will substantially facilitate in the recognition of Azerbaijani diplomas abroad; the structuring of each individual course by way of the "block (modules) system" will make possible for teachers instructing a particular subject to also teach in partner institutions of higher education abroad for one (1) semester or one (1) full academic year, which would enhance the teacher's study experience furthering their self improvement.

In 2006, upon the subsequent expansion and implementation of the multi-point grading system for student aptitude assessment, the strengthening of the new curricula for primary level teachers training under ESDP was initiated, as well as the commencement of the curriculum and textbook for the integrated "Foundations of Education" course, which incorporates for the development of skills in pedagogy, psychology, methodology, active/interactive learning technologies at institutions for teachers of education thereby assisting prospective teachers in the improvement of their expertise involving practical preparation, pedagogical communications and management skills.

The Concept and strategy of teacher education and continuous teacher training document has been conceptualized under the auspices of the ESDP, and subsequently submitted to the Government for approval. The essence of this document states that the education a teacher receives prior to their service is not sufficient enough knowledge to tide him over for the duration of his teaching career; therefore constant teacher re-education must be viewed as a permanent process and that teacher training shall continuously be implemented in various forms taking into account the constantly changing needs of the society. According to the provisions of this concept, subjects not directly related to a teacher's education program prior to their tenure will be dropped and in its place, an increase in the teaching hours for subjects specifically aimed at practical teacher training, prioritizing their teaching experience, training teachers with dual specializations, and incorporating into their programs, courses on education management. Another fundamental change in the system of higher education is the adoption of a new generation of national standards of education in all areas. To which the number of classroom hours has been reduced in accordance with international experience, thus bestowing on the students the opportunity to work independently, while the quantity of elective courses have been increased to twenty (20) percent. In compliance to the requirements under the Bologna process, along with the appropriate specialization undertaken, the quantity of theoretical courses is reduced to which the duration of practical courses is increased.

Certain measures have been undertaken in respect to the recognition-notification of diplomas received by Azerbaijani citizens who completed higher education studies abroad. During the recent years, several measures aimed at improving the system of higher education have been implemented. Structural changes have been undertaken in higher education, likewise, its network optimized. National standards of higher education and other related basic educational programs (core curricula) for all specializations have been developed and approved. Curricula in all institutions of higher education has been partially renewed and students have been given the opportunities to choose their desired courses, as practiced in universities in developed countries.

With the introduction of the Multi-point grading system for the assessment of student aptitudes, the "Provisional Guidelines for student aptitude assessment based on the multipoint grading system" has been approved, to which changes have been introduced to relevant Basic Higher Education Programs; institutions of higher education, specialties (vocations), groups and number of students to be researched upon has been determined; "Experimental basic higher education programs" and related educational plans for relevant specialties have been formulated and approved. These educational plans and programs diverge from their predecessors in the sense that a number of courses have been dropped from these plans and programs, while some subjects have likewise been integrated; Examination has been established as the only method of assessment for taught courses, thus eliminating the previous method of testing without marks.

The "Experimental educational plans" and "Provisional Guideline for assessment of student aptitudes based on the multi-point grading system" have been implemented in ten (10) pilot higher education institutions and ten (10) specialties (vocations) since September 1, 1999. In the following years, the scope of the experiment has expanded to fifteen (15) public institutions of higher education, forty (40) fields of study and eighty (80) specializations.

The analysis of these implemented experiments illustrate that this trial assessment based on the multi-point grading system helped achieve a higher ratio in respect to student attendance, teaching discipline, the mastery of program content, the makeup of lecture content, the improvement of student participation during practical and laboratory sessions, the facilitation of appropriate regulations between teacher-student relations thus ensuring its objective of assessing the aptitude of the student.

A normative-legal method has been developed for attestation and accreditation of institutions of higher and secondary vocational education. The Ministry of Education has contrived the "Guidelines for Attestation and Accreditation of institutions of higher and vocational education" which was passed and approved by the Cabinet of Ministers (order # 49) dated April15, 2004.

Beyond doubt, the first since the country's post-Soviet era that the most significant development in the field of higher education was the conversion to the multi-step -bachelor and master system of specialist education. To which the period of study under bachelor program ended in the academic year of 1996/1997 which was then followed by master's programs in 1997. A number of normative-legal, as well as teaching-methodological documents for regulation concerning this field have been developed and approved, as well as other organizational measures carried out within the past years.

The following have been developed in the past years: "Guidelines for Master Education", "List of master specialties (master's programs)", "Model. Guidelines for admissions examinations for Master's programs at higher education institutions and its implementation", "Exemplary models for Master's diploma and addendum to the diploma", "Guidelines for the preparation, completion and issuance of master student and master attestation cards", "Guidelines for the development, approval and defense of Master's degree dissertations", "Guidelines on specialized scientific boards for defense of Master's degree dissertations".

Currently, 38 public and private institutions of higher education have Master's programs which provide Master's degree education in 80 specialties. At present 7,702 students are enrolled in a range of Master's degree programs at various institutions of higher education.

In addition to the above mentioned, it is important to note that problems still exist in this field due to the lack of relevant experience as well as conceptualization expertise. Those are the most critical issues for the revision of the standards of education in line with the minimum national requirements set for the subject matter content and level of bachelor and master degree education. In 1994, the public institutions of higher education in Azerbaijan initiated the paid form of education. To which the resources generated were utilized to supplement for the teacher's salaries, the enhancement of the technical material-and teaching structure of educational institutions, the acquisition of contemporary technologies, & for the disbursement of individual student stipends.

The system of licensing higher education institutions has been implemented since 1998 in order to adapt the country's higher education standards to international standards.

After the restoration of the country's independence, the trends in respect to local integration into the system of world education, swift adjustments to internationally recognized educational models as well as the efficient use of progressive know-how has been more frequently observed in the field of higher education. The transformation to the two-cycle system of specialist education, the approval of new classification of specialties aimed to provide the country with competent as well as competitive specialists, as well as the formulation and implementation of related national standards, educational plans and programs for each specialty, the right of autonomy granted to a number of universities shall undoubtedly be viewed as successful achievements. It is remarkable that the new multi-point grading system for the assessment of student aptitude at higher education institutions, attestation and accreditation of educational institutions are already yielding positive results in terms of improving its quality as well as maintaining its transparency.

The reforms in the field of higher education can be viewed in two phases. The first of which is the transition to two-cycle system of education in accordance with the current Law on Education.

During that time we were faced with a lot of challenges, such as the lack of experience and skills concerning educational administration in higher education institutions, in particular, the problems concerning curriculum load (where in some cases, the number of subjects reached a total of 48-55 hours while the regular weekly course load called for only 34-38 hours) in programs that trained "narrow" specialist development for the planned economy, the extensive number of subjects and class hours, as well as other obstacles and encountered resistance to establishment of the curriculum content for the Master's degree programs.

Consequently, we have only been able to revise the basic educational programs adopted during those years, the "The Structure of minimum national standards of content and level for bachelor degree program", as well as the standards based on them, to reduce the number of lecture hours to 4140 and the tapering in a number of courses down to 43-45, in contrast to figures in other' international institutions which are 3100-3300 and ~0-38 respectively.

During the second phase of these reforms, the Ministry of Education undertook an evolutionary approach with which to resolve these existing dilemmas. Starting from 1998, it adopted and transmitted to institutions a number of normative documents and administrative letters reducing the overall curriculum load and weekly course hours, the exclusion of unnecessary subjects from educational plans, reducing the hours of social science courses and increasing the number of elective subjects.

Evidently, despite the measures implement ed since 1998 which aim to improve the subject matter content of education, never has those measures been integrated into one cohesive

document and there was a need to expand on the Structure of minimum national requirements for the subject-matter content and level of bachelor level education.

The approval of the structure of mandatory minimum national requirements (national standards of higher education by specialization) for the subject-matter content of bachelor level education is an improvement of a new generation of national standards of education for all specializations, which will be implemented during the start of the next school year. Under these new standards the number of lecture hours on average, have been reduced from 4140 to 3305 (20%), and the number of compulsory social science courses from 10 to 3. These compulsory courses are: the History of Azerbaijan, Azerbaijani language (for students whose language of instruction is not the Azerbaijani) and foreign languages. The rest of the courses (Philosophy, Political Science, Sociology, Economy, Russian language course for students whose language of instruction is Azerbaijani etc.) are offered as elective subjects. At the same time the number of hours in this field has on average, been reduced from 798 to 378 (47.4%) totaling to 420 hours. This constitutes 13% of the total number of hours for all subjects, which is in line with the curriculum load in institutions of most foreign countries.

The number of hours for elective courses has been increased from 5% to 20%, thus now in compatibility with international counterparts. In accordance with the planned implementation of the system of credit in education under the Bologna process and for the reason that school year calendar commences on the 15th of September based the Decree of the President of Azerbaijan, the number of weeks for theoretical instruction have been reduced from 133 to 115. The length of pedagogical courses has been increased from 10 weeks to 18 weeks. Thus, the implementation of this new educational structure has placed important responsibilities before the institutions of higher education.

The Bologna process integrates Azerbaijan into the European educational arena. For which it is necessary to complete implementation of the two-cycle system of higher education and transition to the Bologna process system of credit that will provide the necessary conditions for the expansion of a student's rights and freedoms in the learning process, increase responsibility, ensure thorough mastery of the course and as much as possible endeavor for the elimination of negative incidents that may arise, as well as the establishment of a contemporary attestation and accreditation system that consolidates effective control mechanisms over the quality of education. We have to edify specialists who will at some point in their studies be able to pursue their education in the same field at a European university of their choice, The diplomas provided for our students will gain recognition as well as acceptance in Europe, Evidently, to achieve such recognition and acceptance the quality of education here should be comparable to -

our European counterparts. So it is imperative that the mental development of our teaching staff and personnel is highly necessary.

An extensive array of activities has been developed and approved by us, which is slated for implementation until the year 2010 in connection to the complete transition to the Bologna process. Firstly, the guidelines for transition to process system of credit at institutions of higher education have been approved and are currently being implemented in several higher education institutions. Concurrently, a new set of standards of education in all specialization have been developed and will be implemented starting in the start of the new school year.

In order to make comprehensive changes in higher education of Azerbaijan, the Law on Higher Education is planned to be adopted after adoption of the Frame Law on Education passing the preliminary hearing.

The Republic of Azerbaijan joined the Lisbon Convention on Recognition of Qualifications in Higher Education in Europe. In order to implement Specific Regulations worked out in accordance with the provisions of the Convention and approved by Resolution No: 64 of the Cabinet of Ministers, dated 13 May, 2003, a Division on Recognition of Educational Documents was set up at the Ministry of Education under Order No: 11/182 issued by the Ministry of Education on 27 April, 2007, with the view to implement the procedures on recognition of qualifications acquired in foreign countries and defining if the qualification received abroad complies with the educational standards of Azerbaijan Republic. Foreign qualifications and educational documents are recognized at the Ministry of Education taking into consideration the international experience and recommendations.

#### 8.2. Challenges in Higher Education

A number of problems are still prevalent despite comprehensive measures in the field. First, the subject matter content of higher education does not entirely measure up to contemporary standards, non-essential courses still prevail in the educational programs of a number of specialties, the system of accreditation in relation with the control of the quality of education does not encompass all educational institutions, marketing services have not been established at institutions of higher education, the teacher in-service training does not measure up to contemporary standards, there is no exact reward system in place, hence teachers are not sufficiently rewarded and the system of remuneration is not based on their performance. Teacher training mechanisms in higher pedagogical institutions is outmoded, the subject-matter content in pedagogical education is not sufficiently consistent with the requirements of general schools, there is an obvious lack of textbooks for various specialization, the curricula are no longer appropriate for today's world of rapid technological development and labor market demands, the scientific and long-range forecast of needs in services market based on the orders of individuals and of the society has not been improved upon. Institutions have not been equipped with Information and Communication technologies (ICT), thereby resulting in inadequate specialist training and application techniques as well as active/interactive learning methods.

The number of institutions that lack technical product materials as well as a resource structure that meets contemporary requirements have likewise have not been supplied with the modern equipment necessary for instruction, the existing finance mechanism is not sufficiently efficient. Teachers lack competency in skills involving innovative teaching and learning methods, the connection between institutions of higher education is not cohesive, in -service institutions and schools, as well as their curricula is weak and inappropriate, there is a preponderance of teacher training in certain specialties, the training of dual-specialty teachers is limited, the smooth transition and progression from one phase of education to the next is not perfect, various problems exist at higher education institutions with regards to progression from one year to the next and State examinations are disorganized, to which negative incidents have take place in this process, the system of Second higher education has not improved.

One of the key alarming problems in the system of higher education is related to preservice teacher trainings. It is no secret that for decades, fundamental quality changes have not taken place in the content of teacher training in present-day higher and secondary pedagogical institutions. Syllabi and curricula are designed in such a way that students are overloaded with theoretical information but insufficient attention to the development of practical skills and abilities is sourly lacking. Numerous facts illustrate that graduates who receive their diplomas and commence with teaching in reality, do not possess the necessary knowledge concerning pedagogical-psychological issues, new teaching methods and technologies, as well as a clear grasp of the essence of important pedagogical concepts.

Taking all this into consideration, the Concept and strategy of continuous pedagogical education and teacher training in the Republic of -Azerbaijan aimed for the improvement of the teacher training system to the required adequate levels has been formulated and submitted to the Government for approval.

The central part of this document reflects on the main international requirements for teacher training, the application of contemporary approaches geared towards the efficient organization of this system. The fundamental idea in this document is that pre-service pedagogical education alone is not sufficient enough to sustain a teacher's entire career, therefore pedagogical education must be viewed as a permanent and continuous process and teacher training must be continuously carried out employing various methods that take into account the constantly changing needs of the society.

It is also envisaged to introduce the Foundations of Education"course which is completely new to education in Azerbaijan and will assist prospective teachers in acquiring practical hands-on experience, pedagogical communication and management skills and will incorporate development of skills in pedagogy, psychology, methodology and more importantly active interactive learning technologies at pedagogical institutions. The implementation of these measures will play a major role in improving the teachers' professional level of competency and thus ensuring a smooth transition from theory to practice. Currently, the curriculum and textbooks pertaining to these subjects are being developed at the same time with the curriculum that concerning the subject-matter content for the training of primary school teachers. When speaking about the training of specialists it is impossible to avoid the existing problem of the lack of textbooks at institutions of higher education. Obviously, lectures alone are an insufficient basis for education, the availability of textbooks for a student's development as a specialist is deemed crucial. At the same time as one of the possible solutions for this problem is for the management of higher education institutions to seriously consider and propose for the apportioning a part of their income generated through paid education towards the development of textbooks.

Despite the recent surge in renovation and reconstruction at institutions of higher education and the resulting fundamental change of the exterior facade of our universities, the provision of contemporary teaching and laboratory tools, equipment and appliances that playa crucial role in training of specialists, does not meet international standards. Moreover, the necessary activities needed for the advanced training of teachers in higher education institutions has all been forgotten. Necessity to involve teachers in in-service and advanced training activities at reputable educational and training centers abroad is of current importance today especially when we are joining in the Bologna process.

## 8.3. Long-term activities

Future directions of development for the improvement of Higher Education are the followings:

Steps have to be taken towards the direction of integration into the European system of education under the requirements of Bologna process. The implementation of the system of credit in higher education must be expanded and supported by the creation of nonnative-legal edicts in this area, the process of accreditation must be continued and international organizations shall likewise be engaged in this process, the development of addendums to diplomas of higher education must be carried out;

- The creation of electronic textbooks and electronic libraries in higher education; Enhancement of management and planning capacity, arrangement of marketing services; Development of new curricula for teachers' in-service training;
- Appropriate State Program on strengthening of material-technical and teaching resource base shall be prepared;
- Ensure absolute transition to national standards of education and basic educational programs of higher education that are in compliance with contemporary standards;
- Creation of a system for forecasting specialist development in accordance with demands and needs of the labor market;
- Achieve approval of the new Guideline for organization and arrangement of practical work experience for students;

Complete by the end of 2007 development and introduction of standards of education and textbook on "Foundations of Education" for training of primary school teachers in line with new strategy and concept of teacher development, expand scientific researches on problems in education;

- Implement reforms in the content of higher education; maintain transition to integration models;
- Application of new mechanisms in management of education quality, monitoring and evaluation of activities of educational institutions;
- Implementation of the program on "Computerization and automation of the system of higher and secondary vocational education";
- Design of the new economic model of the system of higher education;
- Revision of the standards of education for bachelor and master level training in compliance with minimum national requirements on content and level of education for bachelor and master degree programs.

## 9. Development of scientific and scientific-teaching staff in education

Scientific-research activities on solution of important scientific-technical problems have been carried out in departments of higher education institutions and scientific research institutions, Researches on application of innovations and contemporary learning methods have been conducted at the Center for Applied Education Researches established under the ESDP in the Institute of Educational Problems. A Science-Teaching Center was established at Baku State University by Azerbaijan National Science Foundation and the Ministry of Education with financial support of the U.S. Civil Research and Development Foundation. Important scientific results have been attained in the fundamental and apply scientific researches conducted by the scientists from institutions of higher education, results from approximately 70 of such scientific research works were selected nationally as highest scientific achievements for submission to the Azerbaijan National Academy of Sciences to be published in the annual report. Teaching staff have published 188 monographs, 232 textbooks, 393 course materials, 1454 programs and methodological aids, 6029 articles (719 abroad), 2197 thesis (571 abroad). 21 scientific journals and digests have been published at the institutions of higher education under the Ministry of Education. Well-known scientists from Azerbaijan have made reports at international conferences (symposiums) held in leading scientific centers of the world, as well as chaired scientific conferences (symposiums) and duly representing the science of Azerbaijan. 15 international and 27 national scientific conferences were held at institutions of higher education of the country. In order to improve the quality of scientific-research works by post-graduate students and young researchers and arrange a discussion into their scientific achievements, the Ministry of Education has organized the "XI national scientific conference of post-graduate students and young researchers" and published the conference materials. XI national subject Olympiad (mathematics, physics, chemistry, computer science, Azerbaijani language, History of Azerbaijan, Geography of Azerbaijan, English, French and German languages) among institutions of higher education was held.

## 9.1. Challenges in the area of science

Budget resources allocated for scientific researches do not provide development of science of the higher education institution, material technical base for conducting efficient scientific research activities is not on the required level, existing equipment is obsolete, supply of the modern equipment to the scientific research labs and scientific books to the libraries as well as information database system of the higher education institutions are not on the required level. As a result of the inefficient building of relations between the higher education institutions and the Azerbaijan National Academy of Sciences (ANAS) as well as field scientific research institutions, there is no sufficient number of joint scientific research activities. Due to low rates of wages there is a problem of brain drain. No main chairs of the higher education institutions were formed in the ANAS and field institutions. There is no efficient international scientific cooperation built up between scientific centers of the foreign countries and the higher education institutions.

## 9.2. Long-term activities in the area of science

The educational policy carried out in the higher educational institutions of Azerbaijan has become a significant part of science and paves the way for increase of its achievements and international recognition. It is no mere chance that last year the results of some 80 scientific researches carried out by the scientists of different higher educational institutes of Azerbaijan were positively assessed by the recent AMEA reports. Moreover, more than 800 articles of Azerbaijani scientists have been published in foreign magazines and a total of 300 employers of higher educational institutions participated in different conferences and symposiums organized abroad.

A number of measures taken in the scientific area, including improvement of the normative legal base, elaboration of the State Program called Development of science of the higher education institution, creation of field science research labs in the higher education institutions in order to broaden scientific cooperation between higher education institutions and production fields, organization of science training centers and creative complexes in the higher education institutions and conduct of activities for their inclusion in the university complex, conduct of monitoring of activities of scientific research institutions (scientific research labs), which function in the system of the Ministry of Education, on the basis of the results creation of the new research groups or institutions in accordance with the requirements of the modern economic development and implementation of coordination of their activities from a single center, improvement of patent licensing activity, improvement of activities for preparation of the scientific teaching personnel, development of the scientific potential of the higher education institutions by selection, preparation and involvement of the talented, capable students and young professionals in the scientific research activities, taking measures in order to raise the level of the scientific researches of the students of the higher education institutions to the level of the modern requirements, involvement of the ANAS specialists in preparation of the master's students, together with the ANAS determination of topics of the master's students' theses and coordination of this work, formation of the main chairs of the higher education institutions in the ANAS and field institutions, together with the ANAS and field institutions preparation of proposals related to the preparation of the educational program abroad, improvement of information provision of the higher education institutions, supply of new course books and scientific literature to the libraries, conduct of activities for creation of electronic libraries, interlibrary network, expansion of mutually useful cooperation relations with the strong scientific centers of the foreign countries, creation of metrological and repair services in the system of the Ministry of Education must be defined as necessary activity directions.

## **10.** Post-diploma education

There are a total of 26 post diploma institutions operating in Azerbaijan, 15-20,000 people are annually recruited in those institutions.

## **10.1. Accomplishments**

Recently a new model of the in-service training program based on order -proposal principle has been elaborated and has been transferred to a mechanism of "support center" in the area of the in-service training. 20 new curricula on 6 subjects have been prepared and applied. A Ministry strategy for teachers' familiarization with active/interactive training techniques has been worked out. Efficient international cooperation relations in the area of in-service teacher training have been built up, conceptions of the education of the elderly, post-diploma education, distant learning have been prepared and applied. Computer courses were included in contents of the in-service training.

To form an all-round developed personality every teacher must regularly undertake inservice training for increasing their professional level and quality of education. This principle by ensuring continuity of the Azerbaijan education system is directed at constant improvement of the teaching personnel, increase of quality. However, this education must not have the same content for all; it must be conducted in an appropriate and efficient way by taking into account teachers' requirements, needs, preferences and wishes. In this case it is important and crucial to determine the teachers' real requirements for in-service training in advance. Therefore school management, subject methodical units, relevant support centers, regional methodical rooms and in-service training institutions must assist teachers within their authorities by determining content in accordance with the teachers' real requirements for in-service training. This conceptual idea has been accepted as a main principle in a new model of in-service training and a mechanism for learning teachers' requirements for in-service training has been created.

Teachers' involvement in in-service training increases efficiency of in-service training makes it a necessary action for teachers, increases quality and efficiency of the prepared and offered teaching plans, a teacher, first of all, being an interested party in this activity, demands that in-service training institutions function in conditions of sound competition.

In June 2004, by focusing on the issue the Republican scientific practical conference on a topic of Problems and perspectives of application of new techniques in in-service education was conducted in the Azerbaijan Institute of Teachers. During the conference the main strategy for in-service teacher training and re-training education, content and structure reform of in-service training, ways of organization of the mutual activity of regional education departments, methodical rooms, support centers, in-service training institutions, application of new techniques,

active/interactive training techniques of dynamic programs in in-service training, planning and organization of activity of support centers, joint activity of the branches with support center, structure and content of activities in support centers, course of the conducted experiments and other issues were discussed.

Within the framework of the Reform Program a number of accomplishments in the area of in-service training and re-training can be described as following:

**1.** New curricula of an absolutely modern level for in-service training connected with active/interactive training methods of the teaching personnel have been prepared;

**2.** Alternative structures of in-service training were created with ACI (Azerbaijan) support and via application of new training technologies for giving alternative opportunities to the teachers for selection of forms of in-service training. As a result 2,558 teachers, 160 teacher trainers were prepared via alternative programs. Within the frameworks of the various educational projects country-wide 3,046 teaching personnel were trained on the basis of the new training techniques.

Introduction of regulations of the activity on the model of organization of the process in the support centers, creation of a database of the country centers, heads of centers, teacher trainers, involved teaching personnel in the republic, conduct of special monitoring of the support centers in a number of regions and generalization of the results form the basis of the activity implemented in this direction.

Tendency of increase of activity of the support centers in the experimental zones was observed, involvement of more teachers in the process was achieved, accurate registration of this activity republic-wide with assistance of the database which includes information about 2,298 teacher trainers involved in work of 1,638 support centers was conducted, a future strategy for correction of activity in accordance with the strategic analysis was determined.

**3.** A one-year activity program of in-service training and re-training of the teaching personnel and a five-year (2003-2007) development program of the continuous education have been prepared. In the one-year activity program problems, aims and planned activities, expected results connected with the application of new techniques and processes. Participants have been determined. Content of the five-year development program prepared for the strategic work included implementation of reform, improvement and decentralization of the management, enhancement of legal and normative, material technical, and teaching bases, concrete strategic activity on financial support of in-service training and re-training education, period of implementation, implementers, expected results in accordance with the forecasts.

**4.** In 2003 representatives of the Ministry of Education participated in Education of the elderly: perspectives of development in the 21st century International Conference conducted by the Educational Partnership Council of the CIS Inter-parliamentary Assembly and Russian Education Academy in St Petersburg, where the activity strategy for implementation of the conception of education of the elderly for the first period was determined, an Azerbaijan model of Education of the elderly conception was approved.

**5.** On September 12-13, 2003, the first national conference on Education of the elderly was conducted by the Ministry of Education, the International Cooperation Institute of the Union of Germany Popular Universities (IIZ/DVV), and permanent commission on issues of Science and Education of the Republic of Azerbaijan, Baku Science Training Center, and National Confederation of Entrepreneurship Organization.

On November 5-6, 2004, within the frameworks of "Education of the elderly in the South Caucasus" project the National Conference on topics of "Life-long .Education" and "Education for everybody" was conducted for the second time in Azerbaijan. The purpose of the conference was to determine situation with education of the elderly in the country, problems and development perspectives, to raise public awareness of education of the elderly in Azerbaijan.

**6.** The Memorandum related to the In-service Teacher Training project signed between the Ministry of Education and the British Council on September 24, 2003 was aimed at development of the English language teachers of secondary schools of Azerbaijan and development of teaching of this language. To this aim in 2004 the British Council conducted 4 intensive seminars for 22 English language teachers from Baku and Sumgait in accordance with the In-service Teacher Training Project. The second Memorandum of Understanding between the Ministry of Education of the Republic of Azerbaijan and the British Council on behalf of the United Kingdom was intended to be signed for starting the second phase (2005-2007) of the in-service teacher training project. In-service Training of 26 teachers was planned for the second phase of the In-service Teacher Training. It was advisable to select those teachers from pilot regions (Ali Bayramli, Ujar, Ismailli)

7. Conception of Preparation of Education managers and relevant normative basis were created, "Five-year Development Program for preparation of education managers in the Republic of Azerbaijan was prepared. As a result of preparation of education managers at various education stages it is expected to achieve the following results:

- to increase quality of work of the managing personnel engaged in the educational system.
- -to introduce the managing personnel to the modern methods and technology, to acquaint them with the new information, and apply it to a management process and to achieve high results in the end;
- -to renew content and form of management, to apply modern mechanisms, methods, new approaches;
- -to create a mechanism for preparation of education managers, to provide a transfer to modern management mechanisms;
- -to involve education managers in a high level continuous education; -to modernize criteria used for assessing work of the managing personnel;
- -to apply new plans and programs with content and form of international standards to in-service training and re-training on preparation of managers the continuous education;
- -to have new appointed managing personnel who start working prepared and that can guarantee increase of quality;
- to simplify and improve relations between managers and those who are managed.
- Our teachers don't willingly attend in-service training, not-only because the available programs don't meet their interests and needs but also because teachers' activity is not stimulated in accordance with the results of the process. So, in order to raise the status of in-service training in the pedagogical area it is required to improve its content and first of all, to provide incentives.

Otherwise, its formality will continue also in the future.

As for re-training there are more factors to be corrected in the system. Society, school, parents justifiably do not trust teachers prepared in this way. In the future an issue of lack of personnel in re-training must be paid a serious attention. At the same time it is necessary to create a new model for assessing theoretical knowledge as well as professional level of graduates of this type of education.

## 10.2. Challenges

The problems in the area of post-diploma education are connected with the facts that curricula of the in-service training do not completely meet modern requirements, trainers are not enough professional and skillful, teachers are unable to get rid of the stereotypes, material and technical, teaching bases of in-service training and re-training institutions are weak .

The analysis showed that problems of in-service training and re-training are more serious. So, the available curricula do not completely meet the modern requirements, trainers are not enough professional and skillful, material and technical, teaching bases of in-service training and re-training institutions are weak, ICTs are not widely used, informational provision is on a low level, monitoring and assessment mechanisms are not applied, teachers' needs are not assessed properly.

A principle of order -proposal in the organization of in-service training is not followed, alternative programs are not applied, client's requirements for the program are not taken into account, functions of the service structures (methodic, teaching, HR services) which organize the in-service training are regulated properly, and scientific researches connected with the in-service training are not conducted. "In-service training -attestation -incentive" mechanism is not applied, participants' interest in courses is not provided from point of view of a requirement, mechanism of financing in-service training is not sufficiently efficient, organization of in-service training is mainly based on theoretical knowledge, no much attention is paid to teaching techniques.

Contemporary model and mechanisms prepared in accordance with the world practice of in-service training and re-training are not efficiently applied, current in-service training programs don't meet teachers' needs, and teachers are not encouraged on the basis of the results of the in-service training, that's why results are not satisfactory from the quality point of view.

The analysis showed that due to incorrect organization of re-training, teachers involved in education in this way have not obtained the required knowledge and skills on their professions, their level of professionalism was very low and that led to justifiable dissatisfaction among parents and society.

All the measures taken by the Ministry of Education are aimed at increasing quality. Quality of education depends on a few factors. Even if perfect curricula were prepared, the material and technical base was of the modem level, schools were provided with the most modern equipment, the main person who would be in the center of education is a teacher. All the achieved results, carried out reforms and first of all future of the quality education are connected with the teacher.

## 10.3. Long-term activities

Perspective development directions on improvement of the supplementary education are:

- Preparation of managers for the educational sector of Azerbaijan
- Preparation of new curriculum for in-service teacher training
- Enhancement of material and technical, teaching bases of the in-service training and retraining institutions.
- Expansion of distance learning practice

- Renewal of curricula for in-service training, introduction of active interactive and other new training techniques into the curricula
- Increase of status of the in-service training, provision of incentives.
- Increase of the level of professionalism of the trainers, improvement of structure of the in-service training institutions.
- Acquaintance with the international practice, modern technologies and expansion of their application
- Creation of mechanisms of monitoring and assessment of the in-service training.

# 11. International cooperation

The international cooperation in the field of education is carried out in line with national interests and foreign policy strategy of our country. At present the Ministry of Education has established educational relations with more 30 countries of the world, above 20 international organizations and is conducting more than 70 joint projects and programs.

Currently, more than 3,000 young Azerbaijan students are studying in leading universities of foreign countries and 6,500 students from 50 countries are studying at the institutions of higher education in Azerbaijan. A number of international organizations operating in Azerbaijan are also conducting training of specialists abroad. In 2006 as in every year, approximately 100 students were sent to the U.S. with assistance from ACCELS, IREX, USAID organizations under financial support of the U.S. government, approximately 10 students to Great Britain with assistance of British Council, approximately 80 students to Germany with assistance from German Technical Cooperation Society, several students to Japan with assistance from the Embassy of Japan.

Taking into consideration the importance of specialist training the State Program on education of Azerbaijani youth abroad during 2007-2008 was developed and approved by the Presidential Decree. The Program constitutes the main factor for "transforming the black gold into human gold" and determines the strategy for training of specialists abroad. Under the Program the number of students to study abroad in all study fields will constitute 1000 students annually and the total of students during 2007-2015 will constitute 5000 students.

# Joint projects and programs of the Ministry of Education and international organizations:

## UNESCO

"Associative schools"

"Twinned schools"

"Inclusive education"

"Education for all"

"Improvement of technical vocational education"

"Establishment of UNESCO sections at the institutions of higher education"

U ICEF

"Development and better parenting initiative in early childhood period"

"Active learning and school management"

"Education for development and Convention on Children's Rights" "Improvement of information and analysis in the system of education"

"Well-being and development of youth"

"Establishment of Parent-Teacher Associations"

"Enlightenment on Mine Danger"

Council of Europe

"Education for democratic citizenship"

"Minority education policy"

"Legislation for provision of quality III higher education"; "Teaching history in general schools: content and methodology";

"Tbilisi initiative"

European Union

## TEMPUS

"International relations and development of teaching", "Modernization of etymology and music curricula", "Establishment of tourism management center at university level", "Urban industrial architecture in market economy","Establishment of center for tourism and hotel management", "Europe-Caspian Sea" international relations and development of teaching", "Establishment of center for improvement of the quality of academic programs»,» Environment -oil industry","Modernization of governance and international relations", "Establishment of student services", "Improvement of engineering education", "Application of III environmental training in the South Caucasus region" Open Society Institute Assistance Fund "Step-by-step", "Development of critical thinking" United Nations, "Sustainable human development", "World Food Program", "German Academic Exchange Service-DAAD" ,"Summer language courses", "German studies scholarship", "Graduate exchange program", "Student exchange program", "Research scholarships", Programs by "Youth Accomplishments" ,Organizations Global Fund "Enhancement of response measures to HIV\AIDS" Project British Council "Improvement of English teaching methodology at

educational institutions in " ACCELS "High school exchange program" "Graduate exchange program" "Young teacher development program" "Training program for English teachers" "Partnership in education program" IREX "Student exchange program" "Regional scientist exchange program" "Contemporary issues research program" "Internet access and training program" "Project Harmony" "Links and exchanges program" "High school student exchange program" Peace Corps "English language teaching program" "World Learning" "Inclusive education" Baku Education Information Center "Secondary school exchange program" "Student exchange program" "Master level exchange program" "Research program" Education in Azerbaijan, High school management program", International Medical Corps, "Inclusive education", ISESCO, Norwegian Refugee Council, "Human rights education", International Committee of Red Cross, "Study of international humanitarian law".

## 12. Educational reforms in Azerbaijan

Reform Program of Educational Sector in Azerbaijan Republic approved by the national leader Heydar Aliyev in 1999, has determined future improvement conception and strategy of educational sector in Azerbaijan. Reforms has been realized in three stages, the first stage (1999) covered creation of standard-legal, economical bases and database of new educational system which secures educational right of citizens and conforms the requirements of market economy, the second stage (2000-2003) covered administrative-legal, staff, financial, logistical support and development of new management model for realization of wide reform actions and the final third stage covers (beginning from 2004) realization of all measures considered in program. Currently, the measures considered in III stage of program are consecutively being realized.

This Project that was realized with World Bank credit (1999-2004): This Project possessed training and innovative essence. The amount of Project was USD 5, 5 million, USD 500 000 of which was supplied by Azerbaijan Government. The Project covered the components as educational plan and programs, educational-methodical support, professional skill improvement of teachers, project monitoring and evaluation. The Project was finished in 2004 and evaluated as satisfactory in the World Bank report. The measures realized within the Program are the followings:

- Educational programs, textbooks and methodical resources which meet the modern curriculum requirements were prepared for 20 pilot schools for the first time. Educational programs of new format which meet the requirements of curricula applied in Western countries were developed and published for subjects of

Azerbaijani language and literature, mathematics and information science, history, English language (V and VI classes), music, fine arts (I-II, V-VI classes), Azerbaijani language (I-II, V-VI classes educating in Russian), Russian language and literature (V-VI classes educating in Russian);

- Textbooks, workbooks and methodical resources for teachers on the subjects of Literature for the V and VI classes of pilot schools, Russian language and Literature for the schools at which education is received in Russian were published for the first time;
- New curriculum examples meeting all international requirements were developed for 2 subjects (native language, mathematics);
- New conception and model on assessment of student achievements were developed for the first time;
- For the first time, national assessment model meeting international standards on Native language and Mathematics was developed and national assessment was conducted on the same subjects between 1800 students of the V class at 8 pilot and 12 non-pilot city and village schools in Baku, Ganja, Sumgait and Lenkoran;
- Purposeful seminars on Development of curriculum for Skill Improvement Institutions and Active/Interactive Training Methods were held for 1200 persons, including workers of Skill Improvement Agencies and EPG (Educational Problems Institution), as well as teachers of pilot schools;
- Educational Problems Institution with completely new structure was established on the basis of Former Scientific-methodical Center on Educational Problems and Scientific-investigative Pedagogical Sciences Institution, as well as Azerbaijan Republic Teachers Institution which unites pedagogical education and skill improvement was established on the basis of Head Institution of Skill Improvement and Resumption of Pedagogical Staff;
- Different groups of workers from the Ministry of Education and pilot entities made business travels to Turkey, USA, Israel, Netherlands, England, Finland and Sweden from beginning of the Project to learn about achievements and experiences gained in the area of educational reforms. In addition, Azerbaijani specialists have been educated on six subjects including components of Educational Reform Project at different Universities and Colleges of England and USA with specific scholarships from Ministry of Education;
- Logistical and educational bases of pilot educational institutions have been improved and provided with the necessary equipments.

In addition to the above listed events, many conferences, seminars and round tables dedicated to the modern problems of education have been held. These events have mainly covered the application of active and interactive training methods, school curriculum, skill improvement curriculum, evaluation of student achievements, national assessment, monitoring, and quality of education.

#### 12.1. Educational Reform Program (2003-2013)

The program was considered to be realized in 3 stages: The I stage-2003-2007, the II stage-2007-2010, and the III stage-20 10-2013.

Currently, the Ministry of Education realizes Improvement of Educational Sector Project (2003-2007) under Second Credit Agreement. At this stage, it has been considered to realize many important measures in development of new educational standards and school curriculum, application of new teachers' preparation system and student achievements evaluation model, financing of schools, and management of educational system which meet modern requirements to increase general secondary education. Three pilot regions have been determined at first stage of Project realization.

Credit in the amount of 18 million USD was allocated by International Development Association according to the Credit Agreement for realization of Improvement of Educational Sector Project. Azerbaijan Government share in Project is 2.8 million USD. Open Society Institution (Azerbaijan), as financing organization, provides technical support of USD 200 000 for the Project out of the proceeds of own financial funds.

It has been considered to realize Improvement of Educational Sector Project on main components indicated below:

**The First Component :** Quality of general education and its conformity to area requirements; reforms on subcomponents of curriculum reform, teacher preparation, textbooks and reading materials are being realized within this component.

**The Second Component:** Efficiency and financial reforms. Measures on subcomponents of financing and budget reforms, rationalization and improvement of logistical base of schools are being realized within this component.

**The Third Component:** School grant program. Grant projects on creating equal opportunities in general education and application of innovations at schools are being realized within this component.

**The Fourth Component:** Management, planning and monitoring. Reform actions are being realized on subcomponents of information system, management and planning opportunities on evaluation of student achievements and educational management within this component.

Fifth component: Association and monitoring of the Project. Project monitoring, Society informing campaign, investigating and realization of other measures were considered within this component.

The main goals of Program based Credit are the maximization of the success of every school-age child in general education and increasing efficiency of general education. First of all, the Ministry of Education considers to change the current "memory development school" into individual school model and to establish new educational standards and curriculum for this school to increase the quality of general education.

Another problem is that the curriculum does not meet the modern requirements. Analysis shows that curricula do not take into account modern development tendencies of education do not have development feature and are not directed to skill application aspect. Therefore, there is a need for improvement of educational content for different stages, update of used curricula, and creation of individual curriculum.

Currently, content changes in general education system are being made under the name of curriculum reforms. Preparation of new curriculum is necessary, because current curriculum does not take into account modern development tendencies of education and continuous development factors, and is not directed to skill application aspect. Therefore, there is a need for improvement of educational content, preparation of new curriculum.

Curriculum -the new concept for education system in Azerbaijan, is a conceptual document that reflects organization and realization of all activities related with training process, this means necessary competencies for trainees, content and assessment standards, education plan and programs, requirements for student and his level, specific development purposes of each lesson, methodical support, evaluation model, equipment, etc., and is a conceptual document that explains responsibilities of teachers and the school and certain solutions for them. Main feature of content reforms is that development and application abilities are considered as priority.

According to the world experience, if we do not beforehand determine the qualifications and skills which secondary school graduates will finally receive, we will not be able to correctly determine the goals towards these final qualifications and skills and will not be able to determine ways to achieve these goals. Main feature of content reforms is that development and application abilities are considered as priority. Subject curricula we are working on are not current education programs, as many of you understand. Teachers will see not only the subjects and the hours allocated for these subjects, but all the activities regarding the subject. The current curriculum model mainly has offering function, this means that current curriculum presents ready knowledge to students, it does not create conditions for independent thinking and research. Therefore, there is a need for improvement of educational content and preparation of new curriculum. Curriculum concept, which is new for education system in Azerbaijan, includes: standards of training result and content for each stage of education; training subjects; number of weekly and extra training hours; organization of pedagogical process, methodical support; system of evaluation and monitoring of training results.

Concept of general education in Azerbaijan Republic (National Curriculum) document was approved by Cabinet of Ministers resolution, no. 233, dated 30.10.2006. At the same time, subject curricula are being prepared on the basis of this conceptual document and starting from 2007-2008 school year, they will be applied to I classes in 23 pilot schools as an experiment.

Switching over from old system to new curricula developed on the basis of modern approach is a complex process that requires great responsibility. Of course, the work not only consists of preparing certain documents. Development of teachers who will teach with these curricula, through specific trainings is the most important. Even with a perfectly prepared curriculum, and provision of the schools with modern equipments, the teacher will remain as a main factor who stands at the center of education. The fate of the reforms and first of all fate of high quality education is just depends on the teacher. Therefore, one of our main responsibilities should be the restoration of status and influence of teachers in the society.

Series of measures have been taken within project. There were established Curriculum Council within Ministry of Education and Curriculum Center within Educational Problems Institution. Educational Sector Applied Researches Center was established within EPI.

The fist stage of School Grant component has been finished, 46 winners were determined and allocation of USD 160 000 for related projects was started, II stage has been finished, 73 winners were determined and allocation of USD 308 000 for related projects was started.

At present, quality of education and training is adjusted through regular monitoring and evaluation of same processes. Therefore, continuous monitoring and unbiased evaluation of real development of each student is strategically important. Ministry of Education has determined series of important measures for establishing new system for assessment of student achievements within project. It was considered to replace existing marking system with modern assessment system that enables the evaluation of real development of students.

Establishment of new assessment system was considered as a priority of Reform Program. The need for replacing current assessment system in the country came from social, political and economical changes that took place in Europe at the end of XX century. In recent years, many countries are making fundamental changes in assessment and tracking system of student achievements. If we look at international experience, we can see that gradually people deviate from the examinations prepared and taken by schools and to the certain extent, progressive traditions are being established towards taking hard examinations arranged and monitored by foreign organizations.

Factors effecting the development of educational system show that the reform in the assessment system is important way of positively changing educational system, as the assessment gives information about student training results which is main indicator for quality of education. Measures taken in this area turn to be main information resource for changes in education. The appropriate changes in educational programs can be done just after obtaining enough information on knowledge and skills of the student by assessment. Correct realization of the process is the way of preventing negative conditions in education, as well as it necessitates the application of new approaches in development of mental habits versus "memory" based assessment.

Creation of new assessment system was determined to be one of the main goals of PRES. The same goal was also accepted as a priority in 10 year strategy of Ministry of Education. It is necessary to achieve this goal for improvement of education and training process, collection of reliable information about achievements of students throughout the country, as well as monitoring of educational standards of the country.

Another important measure we want to realize within reform actions is creation of system of student achievements assessment that meets modern requirements. There is no need to prove uselessness of current assessment system. Current assessment model based on subjective discretion of a teacher does not enable to systematically follow student development. Now the generated situation is that students tend to memorize the lesson just to receive a mark. Their training results are not being sufficiently substantiated, they are not being encouraged to achieve higher results, as a result, the current system does not serve to increase training quality.

Unlike the current system, new assessment system accepted in the world and which we want to apply consists of 3 stages - intra-scholastic, national and international assessment. Complex approach to student achievements, creation of new assessment methods and ways, modern examination models are considered in new system.

Many measures of testing new assessment systems have been taken in educational year 2005-2006. Monitoring system for student achievement progress which is main component of intra-scholastic assessment has been tested in 4 schools in Baku, Sumgait and Absheron. To this effect, investigative experiments on native language and mathematics subjects have been conducted in 32 classes and progress in student achievements have been followed up. During the experiment, no daily marks have been provided for students, their achievements have been assessed according to test results taken upon completion of appropriate discussions. One of the main properties of this assessment is that students, who have not learned the subject of

discussion and have not succeeded in test, cannot pass to the next discussion. The initial results show that this assessment method increased the interest and responsibility of students to lessons and enabled elimination of formalities in performance of teachers and class masters.

But who will realize the new assessment system, of course, the teacher. As you see, fundamental changes in educational sector especially depend on activities of teachers and direction of attention to this factor again is not accidental. We tested centralized examination system in Imishli region and Khatai region of Baku last school year. This model is' also important, because high school admissions are realized with test method more than 10 years. Therefore, it is - considered to increase the scale of tests and apply this examination system in all schools next year.

In addition to these, series of measures have been taken on national and international assessment. The purpose of national assessment is adoption of programs throughout the country, determination of efficiency level of textbooks and preparation offers for necessary changes in programs and textbooks according to the results. National assessment was conducted for 4000 students from IV and IX classes in 70 schools throughout the republic last educational year.

General skill level of 15 year old 5250 students from 172 schools was tested on 6 main subjects by conducting assessment throughout 64 regions within international Student Assessment Program (PiSA) in April-March 2007 and currently the results are being analyzed. The purpose of this assessment is to compare the education level of our country with other countries and prepare appropriate development offers.

Efficiency and financial reforms take primary place in the Ministry of Education Strategy. Modern period requires every capital investment to result in a positive change. Therefore, series of measures are being realized in three pilot regions within Development of Educational Sector Project. Ismailli, Ujar and Ali Bayramli were selected as pilot regions according to the agreement with Azerbaijan Government and related ministries. Reform actions have been started in below stated areas of these pilot regions and it is considered to continue these actions:

- First of all, experiments will be carried out in financing general educational schools; special attention will be paid to financial independence of schools, systems of financing per person, optimization of budget classification and etc. Real influence of budget reforms on increase in general educational quality will be analyzed, if the results will be positive, in the second stage the geographical area of the experiments will be broadened and in the third stage reform actions will cover the Republic.
- School Network Rationalization Plan on each pilot region has been prepared with participation of international consulting company. Improvement of school network, provision of pedagogical staff, efficient allocation of teachers, restoration of schools,

strengthening logistical base, influence of reforms on socio-economic condition of the region and other issues included in this phase;

 Measures are conducted on improvement of school network according to rationalization plan. For example, performance efficiency of small schools is measured, consolidation issue of some schools is reviewed, and measures on creation of support schools are taken;

- Schools in pilot regions are restored provided with furniture (student desks, backboard).

Reforms carried out in education sector of Azerbaijan influenced structure of educational system too. Structural changes have been made in Ministry of Education towards improvement of management system and Assessment of Student Achievements, Strategic Analysis and Planning; Information System of Management of Education departments have been established. Main goal of establishment of these departments is to improve activities and increase management quality of Ministry of Education for organization of new system on determination of educational strategy, organization of works in Ministry system on the basis of planning and analysis, strengthening counter-centralization aspect of management and assessment of student achievements.

# 13. Financing of education sector

Financing the education sector developed dynamically in recent years. The budget allocated for education sector in 2003 was 12,4% more than it was in 2002, in 2004 it was 26,7% more than 2003, in 2005 it was 22,8% more than 2004, in 2006 it was 33% more than 2005, in 2007 it was 47% more than 2006.

As a result of passage from planned economy to market economy and establishment of new economic relations, government was facing an important issue of adjusting economy of education sector to these principles. For this reason efficiency and financial reform in strategy of Ministry was very important. Modern period requires every capital investment to result in a positive change. From this point of view, current finance system of educational institutions is not efficient and its improvement is necessary. There is almost no experience in providing financial independence for educational institutions, application of financing per person principle, efficient allocation and spending of funds. Therefore, experiments have been started in financing of schools, financial independence has been provided for 59 pilot schools and financing per person system is already being tested within reform actions. According to the results of the experiment, real influence of financial reforms on increase in educational quality will be analyzed, if the results will be positive, in the second stage the geographical area of the experiments will be broadened and in the third stage reform actions will cover all the country.

## 14. Application of modern monitoring and assessment systems

Currently, application of modern monitoring systems of educational quality is in the experiment phase. New systems on monitoring and assessment of educational institutions activities are not yet applied. Application of such systems is one of the main issues. Current system on assessment of student skills does not meet the modern requirements, switch over of student achievements to new assessment system, application of intra-scholastic and national assessment, as well as passage to attestation and accreditation system in educational sector have special actuality in educational quality increase.

Measures taken towards solving educational quality problem, development of education and its integration to educational system of leading countries in the world starting from 2001, enabled improvement of educational form and content, improvement of education quality, learning advanced experience and new ideas in this area.

Currently, new conceptual approach to improvement of education management system is considered as a priority issue, special attention is paid to very important educational quality problem. From this point of view, educational quality indicators should be objective criteria of efficiency of educational process, activity of educational institution in modern period, this aspect should be accepted as a main factor in educational system, as well as activity of administrative bodies.

In modern management system authorities, administration and control functions on educational quality should be changed, upper administrative bodies and local educational agencies, educational institutions and every educational sector worker should be responsible for quality of education.

Quality concept includes two aspects: conformance with government standards and meeting consumer needs. But from quality of education we should understand the educational quality content, quality planning, management, monitoring, assessment, and level of quality control factors.

Different parts in pedagogical process understand educational quality concept in different ways. Parents relate the quality of education with individual behavior development and training level of their children. For teachers, quality of education includes lesson plan and program, textbooks, comprehensive training materials, material training base that satisfy them. For students, quality of education includes intra-scholastic climate, teacher-student relationships, teacher that satisfy them. Professional education intuitions and employers measure the quality of education by skills, habits and knowledge gained by students. From this point of view, ensuring educational quality should be directly related with uniting all of these factors in an activity process.

Quality of education shows condition and efficiency of educational process in society as a social category, as well as demonstrates conformance of civic, life and professional competence of a person to the requirements of society (various social groups), It is determined with sum of the different aspects (educational content, form and methods of training, structure of the staff, condition of educational and logistical base and other indicators) characterizing activity of educational institution and it ensures development of trainee competence through these aspects. Formation of quality culture in market economy is especially important. Quality culture in education sector can be established when solution of consumer problems will be the goal of every worker in the educational institution and when the structure of educational institution enables it. That is to say, final mark for educational quality is given by consumers. As consumers of education sector we can state trainees, their parents, employers and as government bodies we can state the government itself. World experience shows that accepting the education not as an inductrial sector.

industrial sector, but as a service makes fundamental change in relation to it and increases its efficiency. Under these conditions, requirements for service quality are determined by both service providers and consumers. Just for this reason, satisfaction of consumers with the results obtained from education results and efficiency determination process should be accepted as a primary and decisive criterion by all educational agencies and training institutions.

Quality cannot be established by itself, it needs a planning. Quality issues should take an important place in strategies of educational institutions and systematic increase in quality should be achieved by strictly observing strategic planning.

Quality of education requires thorough investigation of demand, as quality should be approached with quality according to consumer context. It is difficult to maintain efficient working system without information on demand. Educational institution should clarify the reasons of why some persons utilize its services and why others are not satisfied with their services. It is also necessary to understand that consumers utilize services of an educational institution for once, in rare occasions several times, but for a long period. Therefore, trust in educational institution, its influence is very important for institution in modern period. Time is needed to gain influence. Maintaining gained influence is also important, because it may change. For this reason, timely keeping information on stability or instability of relationships between educational institution and its consumers is the most reliable source for preventing arisen problems.

Educational quality planning is a component of general planning of educational institution activities. Current main gaps in perspective planning of educational institution activities are that, the requirements for future results are determined from present-day viewpoint, not perspective viewpoint and therefore, no desired results are obtained from planning. No importance is attached to the coordination and association of measures in those plans, they are considered as incoherent, independent measures. The reason for this is the fact that, in many cases primary goal of educational institutions is to work according to the rules determined by upper administrative bodies and stably perform their functions and this makes creativity and initiative to recede into background. Most important issue in managing modern education in innovation environment is to switch over educational institution from functional structure into development structure.

Management of functional activities serves for present day, but the management of development is directed towards future. It is necessary to take into account that management object is education (training) process in educational institution which acts in functional mode, but management object is innovation processes in educational institution which acts in development mode.

One of the main factors of quality activities and *development* of educational institution is purposeful organization of training activities. There are two priority aspects of approach to training process in modern pedagogy:

- Modernization (improvement) of traditional training process, that is, efficient organization of adopting provided examples and achieving exactly determined standards. Educational process directed towards realization of traditional responsibilities of reproductive training is renovated and training process characterized by exact determination and detailed description of expected results is accepted as technological process within this aspect;

- Innovative approach to training process. From this point of view, the goal of training is to formalize creative and critical thinking of trainees and provide wide opp0rtunities for gaining new experience on purposeful organization of educational and investigative activities. New training models on organization of educational-investigative, educational-game, modeling activities, as well as active idea exchange, creative discussions are being prepared within this aspect.

In our opinion, in addition to traditional training, innovative approach to training process should be primary aspect of activities of educational management bodies and training institutions in modern period.

The main component of system of serving in development mode and general quality management is the preparation of development *plan* of institution; it is also called the strategic plan. After analysis of main problems, main goal, requirements of consumers, ways of achieving success, realization of quality, staff, factors of success, as well as negative factors, perspectives and failures, the scope of necessary measures for certain period (3-5 years) is determined. Next step in general management of educational quality is making work plan of the institution. Work plan is a comprehensive plan, which considers achievement of separate goals within the long-term strategy of educational institution in a certain period (usually in a year). This document explains realization of certain measures. Extension of training profiles and other issues are also considered in this document.

Exact determination of training services, existence of clear service strategy in conformance with institution specificity, determination of available consumers and having vague idea of their requirements, finding out the difference between required services and institutions resources for pro viding these services and resources for elimination of these differences, determination of necessity for improvement of skills or retraining of pedagogic staff and other employees, level of meeting consumer requirements, determination of essence and criteria for successful results of institution should be carefully analyzed when planning institution activities.

One of the main issues for successful performance of educational institution is the determination of quality ideology of training process. Quality education or services meeting the highest education standards can be mentioned as quality ideology of any education institution. Quality ideology is exactly described in quality plan and quality policy is realized by measures considered in this plan. This plan reflects practical realization ways of activities on quality increase. Clear goal and responsibilities, as well as their realization methods are reflected in this plan. In addition, principles of working of institution staff in appropriate groups on quality increasing should be described in the plan and quality increasing projects on realization of mentioned goals should be explained in details. That is, important, abstract ideas and perspectives may turn into real and realizable projects.

All education system leaders are obliged to be leaders and defenders of educational quality management process. Efficient realization of instructions and measures related with these responsibilities-either in total education system or in separate institutions by stages depends on them. That is, the leader who was acting according to "As I was instructed" idea yesterday,

should be adherent and leader of progressive ideas today. Leadership can be characterized by providing support for persons who assist in increasing training quality.

It is necessary to note that, not only the directorate of educational institution considered as leader. Application of quality management system fundamentally changes organization of traditional activities and hierarchical function of educational institution. In this way, teachers roles highly increase and great initiative and creativity opportunities occur for the. Teachers take part in decision making and bear great responsibility. They are given more activity rights and independence, and capable teachers are involved in leading creative groups realizing innovations. Responsibilities of institution director, as a leader, include prediction of expected general level of educational quality, bearing responsibility for realizing quality increasing process, providing systematical reports on performed quality related works, ensuring consideration of consumer requirements, leading skill improvement process of institution staff, not criticizing others without arguments (may be most of the problems are related with gaps in institution activities, not with failures of staff), leading successful application of innovations, ensuring exact allocation of responsibilities between staff and organizational structures (agencies), being capable of removing organization based or other artificial obstacles, creation of effective teams, creation and development of appropriate monitoring mechanisms that enable observation and assessment of process results and etc.

Quality systems require absolute feedback. That is, the mechanisms enabling comparative analysis of results of plans should be applied. From this point of view, it is very important to consider measures on regular analysis of monitoring and assessment results in strategic planning. Quality of education includes satisfaction level of different parts in education process with services provided by educational institution, level of achieving goals and level of carrying out responsibilities. Therefore, development of measurement units system for evaluating educational quality turned out to be an important issue. These units of measure determine opportunities for increasing student achievements, efficiently preparing them for active life, increasing level of goals, responsibilities, management, duty allocation, responsibility and independence of educational institution and renewal of training methods.

Examination and assessment of knowledge in traditional pedagogic experience can be characterized with functions of teaching, controlling, educating. It is considered that, skills gained by trainees from each training stage, their achievements and failures, as well as effectiveness of teachers can be found out by these functions.

Examination and assessment of knowledge is the important source for organization of educational process and its management. Quality of training, solution of the most didactic and educational jobs depend on the objectivity of these information. But control and assessment of

knowledge in current pedagogic experience has subjective essence. And it prioritizes the actuality of pedagogic monitoring issue which functions as diagnostic and controlling system in teaching process increases the importance of monitoring system for ensuring objectivity in knowledge assessment.

Switching over the educational institution into innovation mode, application of educational quality management system actualizes the new approach to base unit problem of institution. Today everyone has to understand that, the base unit of educational institution is not a class anymore, but the institution itself and factors included in it. Teachers and other parts in educational system should not approach their functions from personal point of view, but should understand and accept their roles as joint responsibility and collaboration.

Joint efforts in management of institution, organization of education should be performed by forming an "educational team" consisting of different parts from educational process. Educational team should be open to external environment, educational community (family, educational management bodies, executive authorities, business world and etc.). another advantage of such approach to the problem is that every member of the educational team, each person makes his efforts for the benefit of general work.

Educational institutions with a high quality performance of, acceptable and satisfactory level of education process and efficiency depend on series of important factors." These factors include exact determination of responsibilities of educational institution, spending maximum time by trainees for solution of certain training issues, organization of unit and associated pedagogic management, continuous improvement of teachers, working by teams, prevalence of rules inside institution, establishment of tight mutual relations with parents and community. Thus, we should focus on the fact that, three mutually related factors -teacher, educational institution and environment (surrounding 'of the institution) play an important role in assessment of educational institution quality.

Educational quality control system considers components such as determination of appropriate standards, determination of their measurement units (indicators), development of criteria enabling discussion on achievement of standards, data collection and analysis (monitoring), evaluation of results, realization of appropriate measures, re-evaluation of results of measurements realized in conformance with standards.

Educational quality control, first of all, is performed by educational institution and it is called as "self-assessment" or "self-attestation". All measures, analysis of quality level, quality assurance, quality management and optimization and other operations performed by educational institution for the same purpose, form an internal quality monitoring. And the measures taken by educational management authority for assessment of educational results are called an external

monitoring. The purpose of external monitoring is to determine the objectivity of internal quality monitoring. That is, internal quality monitoring mechanisms and results are controlled by external monitoring. From this point of view, practical measures for wide application of internal monitoring should be performed in training institutions as modern control mechanisms.

Modernization of educational form and content, making information-communication technologies most important tool in educational process, application of modern training technologies and innovations, strengthening practical training, training of teachers, professional improvement of pedagogic staff should be maintained.

Every educational institution should refer to experience gained in formation and development of new pedagogic idea on humanism basis as one of the main principles of government educational policy to achieve goals for increasing educational quality, works in this area should be continued.

## 15. Continuous human development

Continuous human development concept was set forward in last decade of XX century and currently is a priority in the world. It is not by chance that, the concept of continuous human development was included in Declaration of Millennium as a global issue by UN and 2005-2014 period was announced as training decade for Continuous human development.

According to human development concept, suitable economical, social, cultural and political conditions should be established for every person to develop his individual capabilities and his potential. This concept considers that worthy life, health, benefit from education and knowledge should be continuous and all suitable conditions must be provided for welfare of current and future generations. Therefore, no one can be deprived of opportunity to live long, full of value and worthy because of his nationality, religion, gender and etc.

Educational, health, economical, gender and environmental indicators are considered as main indicators of human development in world experience. And literacy level of people, percentage of educated persons, and period of secondary education are the indicators of education.

The report made according to the results of investigations conducted by UN experts on human development shows that, Azerbaijan may be compared with most of the developed countries of the world for literacy level of its citizens and this index is at the maximum level of 98%. The Ministry of Education has established its policy towards maintenance and development of this achievement and as well as developed specific strategy for realization of "Adult Education" concept. It is necessary to note that, human development is a priority in policy of our country, as well as it is widely considered in educational strategy. That is, currently many programs and projects on continuous development are being conducted in all stages of education jointly with international organizations.

Currently, Ministry of Education performs joint projects with Asia Development Bank for general secondary education and pre-school education and performs joint projects with Germany Cooperative Association, Asia Development Bank, UNESCO, Japanese International Cooperative Bank for vocational education and secondary trade education for the purposes of achieving continuous development.

The increasing prestige of Azerbaijan all over the world directly influences the development of international relations in the sphere of education. Currently, Azerbaijan has official relations with the Ministries of Education of 12 countries and the scope of these relations is expected to expand in the nearest future. The projects implemented in cooperation with prestigious organizations such as the World Bank, UNICEF, European Union, Council of Europe, UNESCO, and ISESCO influenced the process of adaptation of education to modern requirements, as well as application of progressive experience in the sphere of education of Azerbaijan.

In recent years the Ministry of Education of Azerbaijan Republic expanded the international relations, including joint activities and exchange of experience with various international organizations. Azerbaijan has organized certain events of special importance from the viewpoint of educational development. Today, progressive educational technologies, international programs, and projects are successfully implemented in the sphere of education. The Ministry of Education established international relations with about 50 countries and implemented more than 70 joint projects and programs in cooperation with over 20 international organizations, which in its turn gives an opportunity to see the successful results of cooperation.

According to the Cooperation Agreement on Implementation of the Project for Consolidation of Response to HIV\AIDS signed between the Ministry of Education and Ministry of Health, Strategic and Action Plan of the Project Group set up by Azerbaijan Ministry of Education on Consolidation of Response to HIV\AIDS was worked out in cooperation with UNICEF in 2005 in order to foster sexual behavior and protect the health of young people. Due to facultative Courses on Education based on Life Experience offered within this Project the relevant programs and educational aid (a total of 50 volumes) have been worked out and distributed free-of-charge. Currently, this program is implemented in 846 schools and a total of 3254 teachers have been trained, while the number of the pupils educated on HIV\AIDS comprises 311929.

The subjects offered at the Courses on Education Based on Life Experience has a significant importance for sexual behavior of children and young people, as well as prevention of harmful habits and various infectious diseases. The implementation of the activities within this Project continues.

The UN Global Fund and Representation of UNICEF in Azerbaijan supported Azerbaijan in defining the priority directions of Education Based on Life Experience, as well as elaboration and issue of the Program both from the financial and emotional viewpoints.

The relation between the Ministry of Education and UNESCO bears a special importance. The cooperation with UNESCO is implemented in a number of directions and the relevant activities are going on.

One of the significant achievements in the sphere of international relations is the steps taken towards the integration to the system of higher education of Azerbaijan. Azerbaijan joined the Bologna Process at the Meeting of the European Ministers of Education held in Norway in May 2005. With this respect, the Ministry of Education undertook certain obligations such as improvement of legislation in the sphere of economic development, implementation of reforms in education, as well as exchange of information and experience, and application of European credit system in order to accelerate the integration process to the European Higher Education Area. In general, the goals set forth by the Bologna process are expected to be implemented till 2010, and the Ministry of Education carries out decisive activities with this respect.

On 14-16 May, 2007, the Regional UNESCO Conference on Review of the Literacy Problem in Europe within Sub Regional Framework: Creation of Cooperative Relations and Support to Innovative Approaches was held in the Republic of Azerbaijan. The Conference proved that the development of education is a priority issue in our country.

Radical reforms implemented in the sphere of educational development ensures that the modern education of Azerbaijan based on the national and moral values will continue to improve within the strategic course set up by the government and will integrate to the world educational system.

Integration of Azerbaijan into Bologna process in 2005 has necessitated realization of reforms in vocational education system that has special importance in continuous human development. Measures are taken towards improvement of staff training, educational quality control (attestation and accreditation), application of credit system, increasing the mobility of students and teachers, recognition of diplomas, provide employment to graduates, adult education and solution of other issues within Bologna process.

Economical indicators play important role in assessment of human development in addition to educational indicators. These indicators are determined by Gross Domestic Product per person

and poverty level. Rate of the economic growth during recent years in Azerbaijan has attracted the attention of world economists, influential international organizations. Economy of country has risen with dissimilar rate and considerable achievements have been gained in this area. That is, GDP has risen by 26% in 2005, by 39.5% first few months in 2006. Another great achievement in human development in Azerbaijan is that poverty level which was 49% in 2003, decreased up to 29% by the end of 2005.

Azerbaijan is one of the leading countries in education of human development owing to the efforts of Ministry of Education. "Continuous Human Development" project was started in Azerbaijan in 1997 within UN Development Program, this subject was included first in education programs of "Western" university, and then it was taught in other universities. It was started to teach Continuous human development subject in secondary schools in 1998, realization of this subject in 25 secondary schools of Baku in 2001 within joint pilot project of Ministry of Education and UN Development Program. The scope of the project was broadened in 2002 by considering its successful results, it was included in programs of all secondary schools in 2003 as a facultative training, and appropriate program and training materials were developed. These program and training materials were first materials developed for general education schools in the world.

It is an estimable case that, decade of global training of Continuous human development was started in 2005, but this process was started in 1998 in Azerbaijan. This indicates that the human factor is the priority in educational policy of the country.

Works conducted in Azerbaijan on continuous human development was highly appraised by UN, this information was spread between member countries by UN Headquarters in 19 December 2005: "Ministry of Education of Azerbaijan Republic has published Human Development Curriculum and it has been started to teach this curriculum in secondary schools".

One of the main factors influencing continuous human development is uninterrupted pedagogic education. This process begins with professional orientation in general education school before vocational education and continues in colleges, bachelor and master stages of high schools, covers extra education stage, as well as skill improvement and retraining stages. Uninterrupted pedagogic education is not limited with this, it includes distant education, adult education and self-education stages as well and forms continuous human development.

Therefore, uninterrupted pedagogic education plays an important role in human development by basing on personality, integrity, universality, legacy, agility and other principles and forms the base for educational institutions training pedagogic staff.

Notwithstanding that level of economical improvement, rich natural resources, creation of suitable conditions and environment, maintenance of human rights and freedom and health

level are common factors that characterize human development, in my opinion, the most important factor that supports continuous development is education and again education.

Main priorities and perspectives of educational development in Azerbaijan:

- Proceeding with curriculum reform; application of new curriculum beginning from 2008-2009 education year
- Preparation of modern textbooks; implementation of activities regarding "Textbook Policy Document"
- Development of electronic text-books
- Proceeding with reforms on student achievements assessment; extension of centralized examining mechanisms and its application in all schools, organization of examinations of small schools in bigger schools
- Increasing practical opportunities of ICT;
- Improvement of management, application of modern management models;
- Provision of qualification trainings on management;
- Application of attestation system of education managers
- Application of age status of education managers
- Improving teacher training system
- Increasing the teacher status and applying new approaches to trainer profession;
- Application of new funding mechanisms in education system, extension of per-capita funding and financial independence of educational institutions
- Efficient application of modern training models and mechanisms prepared according to the world's best practice
- Application of stimulating mechanisms of teachers' performance according to the outcome of the training
- Development of new curriculums in teachers' training
- Develop the adults' education system according to the terms of Bologna process
- Involvement in international projects with regard to teachers' training
- Improve the structure of teachers' training and provisions of its stimulating character
- Inclusion of new learning technologies, active and interactive methods in curriculums with regard to teachers' training
- Increase the proficiency of "trainers/teachers"
- Improve the structure of teachers' training institutions
- Increase the facilities to learn world's best practice and modern technologies, as well as its application

- Develop monitoring and evaluation mechanisms in teachers' training
- Start application of Foundations of Education and standards in teachers; training according to the strategy and conception developed for teachers' training
- Extension of applied research in education
- Establish the legal and normative base with regard to conferring the certificate/degrees to the high school graduates
- Application of new mechanisms of "school-parent" to positively effect the quality
- of management, development and application of legal-normative document with regard to School Council's active involvement to the management process
- Application of rational and student transportation mechanisms in small schools
- Realization of the Program with regard to vocational and technical education
- Implementation of reforms in higher educational institutions according to the requirements of Bologna process
- Extension of application of credit systems in higher educational institutions
- Improve accreditation of higher schools;
- Implementation of activities stipulated in the Program with regard to revitalizing the preschool education
- ICT provision in education system
  - Implementation of the program of staff provision of general schools
  - Implementation of the Program of development of creative potential of gifted youth
  - Implementation of the program of educating children who need special care
  - Implementation of the program of deinstitutionalization and alternative care
  - Implementation of state program of educating Azerbaijani youth in foreign countries