# ANNUAL REPORT
# AUTONOMOUS EDUCATIONAL ORGANIZATION
# "NAZARBAYEV INTELLECTUAL SCHOOLS"
# 2012

# CONTENTS

## INTRODUCTION FACTS AND FIGURES

**AEO "NAZARBAYEV INTELLECTUAL SCHOOLS"**
**FACTS AND FIGURES**
**YEAR 2012**

**4578 PUPILS** study in seven operative Intellectual schools in Astana, Kokshetau, Semey, Ust-Kamenogorsk, Taldykorgan and Uralsk cities.

**459 PUPILS OF INTELLECTUAL SCHOOLS** have become the prizewinners of various international level Olympiads and academic competitions of in 2012

**713 TEACHERS ARE EMPLOYED BY INTELLECTUAL SCHOOLS**
(165 of them – foreign teachers)

**33 ADVANCED TRINING COURSES HAVE BEEN COMPLETED BY THE TEACHERS OF INTELLECTUAL SCHOOLS** (among them 8 foreign courses, 21 domestic courses, 4 courses within the school)

**579 ONLINE LESSONS**
since September 2011

**66 ONLINE WORKSHOPS**
have been hold since September 2011

**100% – ACADEMIC PROGRESS IN ALL THE INTELLECTUAL SCHOOLS**
following the results of 2011-2012 academic year

**3981 PUPILS HAVE SUCCESSFULLY COMPLETED 2011-2012 ACADEMIC YEAR**
(among them with the «excellent» grade - 1173-28,2%)

**THE RESULTS OF THE INTERNATIONAL EXAMINATIONS**

| Examination | Number of participants | Higher possible score | NIS result |
|---|---|---|---|
| SAT-1 | Astana – 9 | 500 - 2400 | 1724 |
| | Kokshetau – 8 | | 1243 |
| SAT-2 (2 subjects) | Astana – 3 | 600 - 1600 | 1286 |
| SAT-2 (3 subjects) | Astana – 5 | 600 - 2400 | 2046 |
| SET | Astana – 38<br>Astana (IB) – 28<br>Kokshetau – 46<br>Taldykorgan – 37<br>Semey – 39<br>Ust-Kamenogorsk– 40 | Pass/fail | 101 pupils passed |
| IELTS | 382, 42 of which - Astana | 9,0 | 5,5<br>6,5 |
| TOEFL | Kokshetau – 5 | 310 - 677<br>C1-560 | 430 |
| BCEPT | Astana (IB) – 7<br>Kokshetau – 34<br>Semey – 16<br>Taldykorgan – 14<br>Ust-Kamenogorsk– 27 | Pass/fail | 17 pupils passed |

## SECTION 1. ABOUT ORGANIZATION

### 1.1. Governance and administration

The level of administration in AEO is an important component for achieving strategic goals. One of the key elements in creating high-quality administration system in AEO has become the improvement of the organization structure, promotion of transparency and acceptance of legal documents within the framework of the administration system diagnostics. Among the positive tendencies in the development of the AEO administration are the following: increase of the efficiency of AEO interaction with branch organizations, interaction between governing bodies, delegation of authority to branch organizations, well-established work of the internal auditing etc.

AEO continues active work on implementation of the best administration standards.

Consistent with the Law of the republic of Kazakhstan dated January 19, 2011 "On the status of "Nazarbayev University", "Nazarbayev Intellectual Schools" and "Nazarbayev Fund" **governing bodies of AEO are the following:**

1) supreme governing body – High Board of Trustees of "Nazarbayev University", "Nazarbayev Intellectual Schools" and "Nazarbayev Fund" (hereinafter referred to as High Board of Trustees);
2) governing body – Board of Trustees;
3) executive body – Board.

**The composition of High Board of Trustees:**

| | | |
|---|---|---|
| Nazarbayev<br>Nursultan Abishuly | - | The President of the Republic of Kazakhstan<br>First chairman of the High Board of Trustees |
| Massimov<br>Karim Kazhimkanovych | - | Head of President's Administration of the Republic of Kazakhstan |
| Mussin<br>Asslan Espulayevych | - | Chairman of the accounts committee of the Republic of KAZAKHSTAN |
| Orynbayev<br>Erbol Turmakhanovich | - | Deputy Prime-minister of the Republic of Kazakhstan |
| Sultanov<br>Bakhyt Turlykhanovych | - | Deputy Head of President's Administration of the Republic of Kazakhstan |
| Zhumagulov<br>Bakytzhan Tursynovych | - | Minister of Education and Science of the Republic of Kazakhstan |
| Shigeo Katsu | - | President of Nazarbayev University |

As of December 2012 the Board of Trustees consists of 8 members. The composition complies with the requirements of the Law of the RK dated January 19, 2011 "On the status of "Nazarbayev University", "Nazarbayev Intellectual Schools" and "Nazarbayev Fund". The members of the Board of Trustees carry out their functions on a free-of-charge basis. In the accounting period the Board of Trustees has held 5 official meetings and 4 meetings by correspondence.

**The composition of the Board of Trustees:**

| | | |
|---|---|---|
| Orynbayev Erbol Turmakhanovich | - | Deputy Prime Minister of the Republic of Kazakhstan, Chairman of the Board of Trustees |
| Sultanov Bakhyt Turlykhanovych | - | Deputy Head of President's Administration of the Republic of Kazakhstan |
| Ashimbayev Maulen Sagatkhanovych | - | Kazakhstan Parliament Mazhilis Deputy |
| Karmazina Lena Magauyanovna | - | Vice Minister of Finance of the Republic of Kazakhstan |
| Sarybekov Makhmetgali Nurgaliyevych | - | President of Taraz National University named after M.Kh. Dulati. |
| Earl John Ball | - | Co-Director, School Leadership Program, UPPEN, the USA |
| Sarinzhipov Aslan Bakenovych | - | Chairman of the Executive Council of the Autonomous Educational Organization "Nazarbayev University" |
| Shamshidinova Kulyash Nogatayevna | - | Chairperson of the Board of the Autonomous Educational Organization "Nazarbayev Intellectual Schools" |

As of December 2012 the AEO Board consists of 9 members. In the accounting period the Board has held 62 meetings. In total during the accounting period the Board has considered 282 issues, regarding various aspects of the functioning of AEO and branch organizations.

**The composition of the Board:**

| | | |
|---|---|---|
| Shamshidinova Kulyash Nogatayevna | - | Chairperson of the Board |
| Ayubayeva Nazipa Altynbekovna | - | Deputy Chairperson |
| Jamenkov Ruslan Akhmetzhanovych | - | Deputy Chairperson |
| Ispusinova Svetlana Bagitovna | - | Deputy Chairperson |
| Muratbayeva Sholpan Anuarbekovna | - | Deputy Chairperson |
| Kazzhanova Aigul Omirovna | - | Managing Director |
| Manapov Nuraly Shorayevych | - | Managing Director |
| Sultanov Kayrat Seksenbayevych | - | Managing Director - Director of IT Department |
| Sadykov Nurzhan Kabylkadyrovych | - | Strategy department director |

## 1.2. Regulatory provision

In its activity AEO is governed by the Constitution of the Republic of Kazakhstan, the Law of the RK dated January 19, 2011 "On the status of "Nazarbayev University", "Nazarbayev Intellectual Schools" and "Nazarbayev Fund", the laws of the Republic of Kazakhstan, decrees of the President and Government of the Republic of Kazakhstan, other regulatory acts and the AEO's Charter.

**Work done in 2012**

The Provisions have been developed; the record registration in judicial bodies has been conducted regarding:

- **2 branches** of AEO - CITO (Institute for Educational Measurement) and Center of Educational Programs;
- **4 branches of AEO** in Pavlodar, Karaganda, Atyrau, Aktobe;
- **1 branch organizations** – corporate fund «Development Fund»;
- **8 representations** of AEO in Pavlodar, Petropavlovsk, Karaganda, Taraz, Atyrau, Kyzylorda, Shymkent, Almaty. .

In order to implement the decision of the Board of Trustees dated November 2, 2012 on creation of the branch organization of AEO "Nazarbayev Intellectual Schools" for construction and further exploitation of the educational and health center in special economic zone "Burabay" LLP "Nazarbayev Intellectual school (Physics and Mathematics direction) in Astana" has been reregistered into LLP "Educational and health center "Orken". AEO will continue work on including LLP in the register of SEZ "Burabay" members.

The following regulatory acts were amended:

1) "On approval of the Rules of awarding and amount of the educational grants "Orken" of the First President of the Republic of Kazakhstan" approved by the Government's decree №317 dated March 14, 2009 for gifted children in Nazarbayev Intellectual Schools.
2) "On approval of the Provision on the sign "Altyn belgy" (Golden medal)" approved by the Government's decree № 1253 dated December 21, 2007;
3) The order of the Ministry of education and science № 125 dated March 18, 2008 "On approval of the model rules of current control of academic progress, interim monitoring and final attestation of the pupils".

In the accounting period **there has been approved more than 30 legal acts of AEO** (6 of which – introduction of amendments and additions to the approved legal acts), which regulate various aspects of AEO and branch organizations.

The subjects of legal examination are agreements and contracts, concluded on behalf of AEO. Protection of AEO interests is provided when awarding contracts with foreign and local partners.

There has been protection of AEO interests in judicial authorities. AEO **participated in 12 legal processes in 2012** and judicial **decisions** in all cases were **for the benefit of AEO**.

There are constant claims activities with suppliers regarding procurement contracts due to their non-fulfillment or improper execution of the provision of the contracts.

The registration of AEO intellectual property rights on the logo of the company is being carried out in the Republican state budget-supported enterprise "National Institute of Intellectual Property" of the Committee on Intellectual Property Rights of the Ministry of Justice.

Work is underway to register AEO intellectual property rights for samples of school uniform (National Institute of Intellectual Property has made a formal expertise) and educational materials, designed jointly with Cambridge University International Examinations (assignments for the school practice period, program for advanced training courses for

Kazakhstan teachers, Guidelines for the Teacher, Guidelines for the trainers, Instructions for the pre-course assignments, Guidelines for assessment, Principles of teachers assessment).

The personnel of AEO legal department are upgrading their skills. For the purposes of studying legal base in the field of intellectual property the personnel of the legal department has completed the training on the workshop "Improvement of intellectual property legislation" since May 29-31, 2012, "Legal protection, safeguard, use, assessment and commercialization of industrial property" from October 29 to November 2, 2012. Within the framework of the completed training the personnel studied the practice of application of intellectual property legislation; discussed main problems of social relations regulation in this field as well as recent amendments in legislation. From December 10 to 16, 2012 the course "Corporate governance and law. Contract and English law for international law". The course focused on legal aspects of governance of organization, basic methods of corporate governance, the analysis of international corporate governance practice cases, various governance models and structures, the need of analyzing management (management structure, human resources) in order to implement risk management of the organization and to eliminate gaps resulting in losses. Within the advanced training courses the personnel studied international practice of legal proceedings in the relevant field.

AEO will continue work on implementing events on law realization to ensure legal framework of its activity.

The work on protection of intellectual property of AEO will be carried out on an on-going basis as well as in other fields.

### 1.3. Economics and planning. Financial provision.

In order to fulfill tasks set by the President of the Republic of Kazakhstan Nursultan Nazarbayev on improvement of the secondary education system and development of the intellectual abilities of pupils through implementation of the project "Twenty intellectual schools of the First President of the Republic of Kazakhstan", the AEO developed the 2020 Development Strategy that was approved by the decision № 4 of the Board of Trustees dated November 29, 2011.

Consistent with the stated strategic documents, AEO funds planning is carried out in following directions:

- projecting and construction of the Intellectual schools;
- material and technical provision of operational and newly opened Intellectual schools;
- defining of the content of education;
- development and implementation of IB programs;
- development and implementation of experimental educational programs;
- teachers professional development;
- dissemination of accumulated experience;
- pupils' learning and upbringing;
- methodological support of the educational process;
- providing housing to teachers.

In 2012 the realization of the abovementioned events was carried out through the state budget and parents payments.

The AEO budget is planned, implemented and adjusted in accordance with the budgetary legislation of the Republic of Kazakhstan, the Law of the Republic of Kazakhstan "On status of the Nazarbayev University, Nazarbayev Intellectual schools and Nazarbayev Fund" and 2020 Development Strategy of the AEO "Nazarbayev Intellectual Schools".

AEO annual budget is a tool for realization of the AEO Development Strategy, it is developed with consideration of the existing goals for the year and is oriented towards the final result following the principles of optimality and efficiency, simplicity and clarity. AEO annual budget is oriented towards meeting economic indexes.

All structural units took part in the process of formation of AEO annual budget i.e. each member of AEO staff was a part of planned activities, and respectively had his own responsibilities.

**AEO budget is approved by the Board of Trustees.**

We constantly monitor cash flows in order to plan and implement the budget effectively and make timely decisions. The AEO works on automation of budget planning and implementation process.

The AEO carries out accounting in line with the Law of the Republic of Kazakhstan "On accounting and financial reporting" dated February 28, 2007 and International standards of financial reporting. Authenticity, continuity, fullness, consistency, discretion and relevance are the basic principles of accounting that are reflected in our policy. The AEO financial activity is annually examined by an audit company chosen within a tender.

In the reporting year the accounting staff of the company upgraded its qualifications in line with the International standards of financial reporting. 4 employees of accounting department passed exams and received corresponding certificates in 2011. They will continue to upgrade their qualifications in 2013 to get the IFRS certificate.

## SECTION 2. EDUCATION CONTENT

In line with the Development Strategy for 2020 the AEO implements two educational models.

The first educational model is an experimental integrated educational program in natural sciences and mathematics (hereinafter referred to as the Education program). It is developed to be implemented at the Intellectual schools. The new experimental integrated educational program and educational programs in subjects will be disseminated among the secondary schools of the Republic of Kazakhstan only after they are tested and implemented by the Intellectual schools.

The second educational model implements the programs of the secondary and high schools in line with the principles and philosophy of the International Baccalaureate organization (hereinafter referred to as IB). This model involves authorization of the Intellectual school in Astana. Implementation and authorization of the IB programs will ensure the accession of the Intellectual schools to the international network of schools that offer the educational programs of international level.

The AEO Board approved the following legal documents in order to regulate educational activities of the Intellectual Schools:

- Rules of educational activities of AEO "Nazarbayev Intellectual Schools";
- Model regulation on Teachers` Council of "Nazarbayev Intellectual Schools";
- Model regulation on Methodological of "Nazarbayev Intellectual Schools";
- Model regulation on Parents Committee of "Nazarbayev Intellectual Schools"

### 2.1. The experimental integrated educational program and integrated educational programs.

In line with the Development Strategy of AEO "Nazarbayev Intellectual Schools" it is supposed to introduce the educational program of Natural and mathematical sciences for elementary, primary and high school intended for 12 academic years.

For successful introduction to Intellectual Schools of improved integrated educational program, designed jointly with Cambridge University International Examinations, the schedule of transition of existing and new intellectual schools to improved integrated educational program in terms of grades was approved. In line with this schedule the pilot project on introduction of the improved integrated educational program in the 7th and 11th grades has begun since September 2012.

## Work done in 2012

In 2012 AEO staff jointly with the teachers from Intellectual Schools worked on following directions:

1. Development of integrated educational programs and curricula jointly with international consultants from Cambridge University International Examinations (hereinafter - CUIE).
2. Pilot introduction of the Integrated educational program in the 7th and 11th grades of Nazarbayev Intellectual Schools. .
3. Monitoring of introduction of the Integrated educational program
4. Academic support of pilot introduction of the Integrated educational program.

### Development of the Integrated educational programs and curricula.

In 2012 more than 40 workshops were held on the development of the Integrated educational programs and curricula in elementary, primary and high school jointly with Intellectual Schools teachers and international consultants of CUIE. As a result 40 integrated educational programs for all subjects of elementary, primary and high school and 60 curricula for the 7th, 8th, 11th and 12th grades were developed.

*Peculiarities of the Integrated educational program in terms of levels*

Educational programs and curricula developed jointly with CUIE focus on teaching pupils to apply the received knowledge to academic and life problems, i.e. on forming functional literacy of pupils.

In elementary school *new subjects* were introduced: “Information and Communication Technologies”, “Art” (integration of music, art and crafts), “Introduction into science”, “integrated mother-tongue language and literature”.

In primary school the subjects “Physics” and “Chemistry” begins from the 6th grade; “Basics of law” begins only in the 9th grade; the subject “Computer science” is integrated with graphic art.

In high school there are fewer subjects and there is an opportunity to choose elective courses which promotes purposeful preparation for entrance to high educational institutions. However pupils will study a number of subjects on a profound level. High school curricula also includes *new subjects*: “Kazakhstan in a modern world”, “Economics”, “Global prospects and research”.

*Peculiarities of language learning within the Integrated educational program.*

One of the important peculiarities of the language learning is level system of teaching, based on European Council document "Common European Framework of Reference: Learning, Teaching, Assessment". Such kind of teaching helps to improve the quality of language learning and monitor the progress of pupils in achieving certain levels with confirmation through external assessment.

It is also important to note, that the approach to the learning of three languages (Kazakh, Russian and English) has completely changed. Previous learning was based on grammar and translation method; however within the Integrated educational program learning is based on communicative approach and is oriented to the development of four types of language activities (speaking, listening, reading and writing).

Another special feature of language learning is cross-curriculum integration of linguistic and non-linguistic disciplines. Thus, for instance, the theme "Healthy lifestyle" is studied in three languages, but is considered from different points of view. In Kazakh the subtheme "Olympic games stars" is studied, in Russian – "Fitness/diet", in English – "Healthy habits/ Extreme Sports". Such kind of approach promotes the development of critical thinking and perceptual unity of this theme. Moreover, during biology and chemistry lessons this theme is considered scientifically.

*Practical orientation* of the three linguistic disciplines lies in the ability of applying received knowledge to solution of academic and real life situations, and is one of major peculiarities of language learning, for instance, pupils can apply their knowledge when writing essays, making projects, discussing various topics in three languages etc.

In addition to that, to keep the balance between the three languages some subjects are given in one of the three languages irrespective of the language of instruction.

**Pilot introduction of the Integrated educational program in the 7th and 11th grades of Nazarbayev Intellectual Schools.**

The evaluation of the Integrated educational program in the 7th and 11th grades of NIS started in September 2012. Travelling workshops were held in all operative NIS in June and November 2012 in order to clarify the process of pilot introduction of Integrated educational program in the 7th and 11th grades for administration and teachers of NIS.

In August 2012 25 training workshops with the participation of international consultants of Cambridge University were organized for all teachers of the operative NIS to prepare them for teaching according to newly developed educational programs and curricula. More than 400 teachers were trained.

Within the August Conference «Pedagogic innovations: from development to introduction» sections on subjects were organized, where the NIS teachers had an opportunity to discuss new educational programs and curricula, share experience of applying active teaching methods and team teaching.

**Monitoring of introduction of the Integrated educational program**

Monitoring of introduction of the Integrated educational program in 2012 was implemented through:

- visiting schools;
- school coordinators reports;
- online forum and online survey.

***Visiting schools***

In order to implement monitoring visits to NIS of Kokshetau, Semey, Ust-Kamenogorsk, Taldykorgan and Uralsk were organized.

The forms of monitoring:

- supervision of lessons in the 7th and 11th grades;
- conversations in question-answer form and team work

Target group:

- local and international teachers;
- pupils of the 7th and 11th grades;
- school administration;
- school psychologists;
- tutors of the 7th and 11th grades;
- heads of methodological associations;
- subject coordinators;
- parents of the pupils of the 7th and 11th grades.

After visiting we got information on following issues:

- introduction of IEP in the 7th and 11th grades;
- team teaching method;
- implementation of tri-lingual policy;
- the use of modern teaching methods and approaches;
- practical orientation of lessons;
- teaching of new subjects;
- subject electivity in high school.

***School coordinators reports***

To implement monitoring of introduction of IEP in operative NIS subject coordinators were appointed; they regularly provide reports on the progress of IEP introduction. This type of monitoring promotes timely tracking and solving of problems arising during the evaluation testing.

***Online forum and online survey***

Online forum and online survey were developed for NIS teachers, putting IEP to an evaluation test.

The purposes of online forum are the following:

- promotion of discussion of arising problems by NIS teachers;
- exchange of experience and resources of work on IEP;
- methodological assistance to teachers;
- implementation of communication between the structural units of AEO "Nazarbayev Intellectual Schools" (departments, centers, schools etc.).

Online surveys are the most effective method of collection and processing data from teachers.

We developed recommendations for NIS regarding questions which were brought to light during the monitoring process. Moreover, the collected data will be analyzed and used in order to categorize and update educational programs and curricula at the end of the 2013 academic year.

## Academic support

In order to render methodological assistance to NIS teachers the following means were developed in 2012:

- Instruction and methodological letter "On the peculiarities of teaching in the 7th and 11th grades within the Integrated educational program in Nazarbayev intellectual schools in 2012-2013 academic year";
- Methodological recommendations on implementation of practical assignments on history lessons;
- Teaching aids on criteria assessment of experimental works on the subject "Physics";
- Methodological recommendations on the section "Statistics and probability theory" of the subject "Mathematics";
- Active methods of teaching on Russian language lessons;
- Modern pedagogic approaches on chemistry lessons and speech skills development methods;
- Teacher aids "Method of "Peer tuition" on English lessons";
- CLIL approach (Content and Language Integrated Learning) in NIS;
- Teacher aids on team teaching;
- Guidelines for teachers realizing tri-lingual policy.

## Work to be done in 2012

Development of curricula for 1-6 grades and 26 curricula for 9-10 grades.

## 2.2. International Baccalaureate program

**Work done in 2012**

In line with the Development strategy Astana intellectual school continued work on preparation to authorization of IB Diploma Program (IB DP) in 2012. The main directions of Intellectual school activity throughout the year were the following:

1. Organization of educational process for the purposes of compliance of educational climate with the IB requirements;
2. Further professional development of teachers;
3. Involving experienced foreign teachers of IB program;
4. Organization of official IB consultant visit;
5. Preparation and issuance of school documents for authorization;
6. Strengthening of cooperation between the Intellectual school and IB schools and international authorization experts;
7. Further work with parents and pupils in order to introduce the main IB principles to them;
8. Improvement of organization structure of the Intellectual school (management system);
9. Furnishing and fitting out of classrooms, school library according to IB requirements.

**Organization of educational process**

In order to organize educational process for the purposes of compliance of educational climate with the IB requirements the comparative analysis of Kazakhstan and international education standards was carried out. Basing on this analysis the model of curriculum in which subjects are divided basing on the principles of Diploma program hexagon was developed. In order to create the best alternative, providing full-fledged preparation of pupils for the Diploma program the duration lessons was reconsidered. Since September 2012 the duration of lessons is 60 minutes, which promotes strong academic preparation of pupils and lerner-centered approach within higher level teaching.

The change of lesson duration will help to fully “cover” 240 and 150 hours minimum for the subjects of IB DP high and standard level.

As a result of prolonged duration teachers have the opportunities for more detailed planning of the study time, implementation of various methods during lessons, applying of assessment criteria and introducing IB learner profile.

By December 2011 25 educational programs on 11 subjects have been developed. Since January 2012 the evaluation of these programs has began. The two stages work was carried out within subject groups in line with Model curriculum. First stage: January-May; second stage: September-December. During evaluation of educational programs teachers paid special attention to the content of programs, combination of theoretical knowledge and practical skills, they considered individual peculiarities of pupils, monitored consistency of chosen resources. During the evaluation process amendments and additions were made to improve the programs.

In 2012 the teachers of Intellectual school developed 27 educational programs: two new programs on the subjects “Academic research and writing” and “Critical and reflective learning”. These subjects are closely connected with such major components of IB DP as “Theory of knowledge” and “Extended essay”, which promotes full-fledged preparation of pupils for further education within the Diploma program.

Theory of knowledge (ToK) – a unique course, developed for promotion of the ability

of analyzing cognitive process through critical re-evaluation of various cognitive methods (perception, emotions, language and cause-and-effect relation) among pupils; as well as various types of knowledge itself (scientific, artistic, mathematic and historical). In this connection the program, which will allow teachers to understand the specific character of the subject to prepare for teaching and introducing ToK elements during lessons, was developed. This program also promotes the development of critical thinking.

Since the abovementioned subjects are new for pupils, we decided to organize the teaching of these subjects within an elective course. Currently, the program on the subject "Academic research and writing" is developed only for the first term of the academic year (till December 2012). Since January 2012 the program for the second term will be presented.

The program "Creativity, Action and Service" (CAS) is in tune with educational program of Kazakhstan standard, thus the decision on introduction of this program on the stage of "school-candidate" status was approved. This program will allow pupils to understand the main CAS elements; it will also promote the formation of IB learner profile.

During the development of educational programs the main attention was given to the assessment process: assessments criteria on each subject were developed, teachers are successfully carrying out work on introduction of criteria assessment on lessons. The assessment policy, which was approved at the beginning of the academic year at the Teachers` council, was supported by the school community. In order to ensure full understanding of the educational program and assessment system by all the pupils in line with IB assessment philosophy teachers developed assessment instructions on which the criteria are based. In this context the development and collection of assessment instructions for each subject have begun.

One of major IB requirements – the presence of school policies which facilitate the implementation of educational process and educational work. The Teachers` council developed and approved the following school policies: Assessment policy, Special educational needs policy, Academic honesty policy, Disciplinary policy.

In April 2012 working groups on reconsideration of the abovementioned policies were created. It is important to note that during 2011-2012 academic year teachers and administration of the Intellectual school implemented the abovementioned policies. Working groups members summed up the results of each policy implementation, determined weak and strong points of the existing documents and began reconsideration taking into account teachers, pupils, international experts and administration recommendations. The policies were reconsidered and discussed at the Teachers` council at the end of August 2012.

One of IB authorization requirements is the presence of the Language policy through which the school work is implemented. In this connection a working group on such policy development was created in May. As a result of the working group work the Language policy was developed and submitted for approval of the Teachers` council in August 2012.

In October 2012 Robert O`Rourke, learning and teaching coordinator and English language teacher organized a number of workshops on Unit plans – one of major Diploma program documents. Along with this, the basic requirements of new teaching and learning policy, which was developed to facilitate professional development of teachers of the Intellectual school were presented to the teachers within the workshops.

**Professional development of teachers**

One of main issues regarding the introduction of IB DP is staff training. In this connection various school and out-of-school training workshops for pedagogic staff were organized, where issues regarding special features of IB schools work were considered.

AEO continues the preparation of teachers for teaching subjects within the Diploma program; in order to ensure full-fledged preparation AEO will continue cooperation with international experts.

As previously said, teaching of new subjects "Academic research and writing" and

“Critical and reflective learning” has begun. These subjects are new for both teachers and pupils. Therefore workshops with the participation of foreign teaching experts Bill Roberts and Maria Ines Piaggio were organized. The results of the workshops were development and creation of programs on core elements of the Diploma program CAS (Creative, action and service), ToK (Theory of knowledge). Consultants Bill Roberts and Maria Ines Piaggio highly evaluated the work of teachers on the creation of ToK and CAS programs. After the development of these programs for the purposes of preparation of local teachers, trainers from Perm state university, which is an official provider of IB workshops, were invited. These workshops were in Russian language which promoted deep detailed understanding of all the elements by the participants. Tutors and advisers took part in CAS workshop. Teachers of the subject “Critical and reflective learning” considered the following issues on the ToK workshop:

- philosophy and principles of IB DP;
- concept and development of critical thinking within the DP;
- concept of international mindedness and development of international mindedness within the DP;
- the role of “Theory of knowledge” discipline in the DP system, ToK-diagram (major principles of ToK discipline);
- learner profile and the role of ToK in learner’s development;
- knowledge issues: ways of identification, evaluation methods, ways of knowledge acquisition - general view. This workshop deepened the understanding by teachers of the peculiarities of ToK element within the Diploma program.

We successfully introduce English language of instruction of some subjects in the Intellectual school. This teaching approach is new for staff therefore the workshop for 11 ESP teachers (English for specific purposes) was very helpful and fruitful.

International IB consultant and chief examiner on the extended essay on chemistry Jeoffrey Neuss gave workshop for chemistry teachers. He gave basic recommendations on the preparation of pupils for internal and external examinations, corrected subject planning for $7^{th}$ and $11^{th}$ grades.

One of IB requirements is the presence of certificate of workshop participant approved by IB among teachers teaching within the DP. In line with the plan of professional development History teacher Bayzhanov M.K., Math teacher Abdrakhmanova A.N., Arts teacher Dastanova U.K. and a librarian of the Intellectual school Tolegenova A. took part in the workshop for DP teachers and librarians (Category 1). As discussed, participation in such workshops is one of major requirements to schools preparing for IB authorization. According to the IB requirements and the approved plan the workshop (Category 1)on first language for Russian and Kazakh languages teachers was organized.

In 2012 international experts held workshops for teachers of the following subjects: Mathematics, Physics, Chemistry, Biology, Arts, History, IT technologies, English language. During the workshops great attention was paid to the issue of course outlines for teaching within the DP. Submission of course outlines when applying for authorization is one of the major requirements. Course outlines have to demonstrate the stage of school`s and teacher`s preparation for teaching the given subject at the highest and standard level. Educational programs, developed last year and reconsidered during the workshops of the current year, before applying for authorization were presented to the official IB consultant. After his recommendations the course outlines were amended. During the course of preparation work the teachers of intellectual school cooperated with international experts on their subjects.

One of the most important conditions for DP teachers is the knowledge of English language. In this connection school-based and foreign language courses were organized: from June 25 to July 15 teachers and administration of the Intellectual school in number of 13 people visited summer language courses in Belfast, Northern Ireland.

Throughout the year various interschool workshops, organized by international and experienced local teachers, were carried out. Among them: "PWork on OCC website – Online curriculum centre", "Introduction of learner`s profile on lessons", "Lesson by lesson planning", "Reciprocal visiting of classes. Feedback". As a result of the workshops the format of lesson plans was developed and approved; the format of reciprocal visiting, through which the current school work is being carried out, was approved.

For new teachers workshops were organized to inform them about the specific features of IB DP, educational programs and school policies.

In order to exchange experience with foreign colleguaes, travelling courses were organized. The teachers of the Intellectual school took part in workshop "Integrated approach to character education", which took place in Singapore. During the workshop the participants got acquainted with the peculiarities of national education which is closely related to educational process, they got more information about the integrated approach in the educational process of Singapore schoolchildren.

On the return, the participants organized a number of seminars for pedagogic staff on the following themes: "Concept of well-rounded education", "Education through subjects", "The formation of all-round and content personality", "Introduction of concepts of national education in our schools". The round table on the development of the concept of patriotic education in the Intellectual school was organized; as well as workshop for tutors "The role of advisers in pupils` life"; duties and responsibilities of advisers, supervisors and CAS coordinator were developed. In order to develop leader skills among pupils it was suggested to add daily 10 minutes meetings with tutors and advisers and pupils self-government to every day schedule.

Also, the administration of and pedagogic staff of the school in number of 7 pople attended International schools (UWCSEA, SJI International) in Singapore. During the visit the teachers exchanged working experience, visited lessons and discussed a number of important questions regarding preparation for authorization. The teachers not only obtained theoretical knowledge but also a number of practical advice. They also deepened their knowledge on criteria assessment, peculiarities of subject teaching within IB system, the connection of subjects with ToK, events, organized within the framework of CAS program.

In order to get acquainted with the work of the authorized IB schools the principal of school Zhangozin A.K. visited Boxhill School in London. During the visit he became familiar with the structure of IB school, visited lessons and studied research method of teaching. He also visited a few "Theory of knowledge" lessons, which is a new discipline for Kazakhstan schools. The work on planning joint events and projects began with Boxhill school. In summer the librarian of the Intellectual school also had an opportunity to visit this school and discuss the preparation for IB authorization with the experienced librarian of Boxhill school.

After being awarded the status "school - candidate" International Baccalaureate (occ@ibo.org) send the code of the school and a password for each teacher to use the OCC website – Online curriculum centre. The access to this website allowed the teachers to find information about IB, publications, education resources, guidelines for various subjects. Currently, the teachers are actively participating in forums where educational programs are discussed, studying experience of other teachers and exchanging resources etc.

**Attraction of experienced foreign teachers**

AEO is working on attracting colleagues from abroad, who have experience of teaching in International schools to cooperate with them. In this connection the principal Zhangozin A.K. took part in Dubai Job Fair which took place from February 21 to 27 in Dubai, UAE; in London Spring Job Fair, which took place from April 25 to May 1, 2012 in London. As a result of the fairs 5 teachers who have experience of working in IS throughout the world, were chosen.

Currently, the Intellectual school has 9 foreign specialists, 4 of which are experienced

teachers of IB Diploma program. Three international teachers were appointed coordinators of different directions; they developed working plan for 2012-2013 academic year with the indication of workshops for teachers on introduction of the Diploma program.

**Work with the official IB consultant**

After being granted the status "school - candidate" by the International Baccalaureate, the official consultant was appointed with whom the school had online consultations since his appointment up to his official visit. We had come into contact with the official consultant M. Abrioux. From November 2011 to September 7, 2012 the Intellectual school closely cooperated with the consultant. We received answers to questions regarding organization and execution of all the necessary documents for application for authorization. The consultant gave helpful recommendations which helped to avoid mistakes in the process of development of curricula. Curricula, Policies, Action plan, Plan of professional development of teachers, list of subjects taught within the Diploma program, elective courses, Academic calendar, schedule for the next year and other documents were presented to the consultant before and during his visit which took place in September 7-8, 2012. In the course of two days official visit the consultant M. Abrioux met with the staff of the Intellectual school, with the members of parent`s committee and pupil`s council. We also organized meetings with the subject groups teachers, with the working group on development of School Policies. After the official visit the Intellectual school received a report which was sent to the IB organization and published on the following web site: https://ibdocs.ibo.org.

M. Abrioux highly evaluated the preparation for authorization.

**Preparation and execution of Intellectual school documents for authorization**

During a year Intellectual school continued the preparation of all the necessary documents for authorization for DP:

1. The Action plan was reconsidered, because in the official letter on award of status "school - candidate" International Baccalaureate named only 2 recommendations regarding the professional development of teachers and participation of the school in the workshop. Relevant changes were made only in the abovementioned directions.
2. Intellectual school teachers developed course outline on subjects taught within the DP.
3. School Policies were reconsidered and put in force.
4. The DP academic calendar for the next year was approved; according to the calendar during the first year of DP program the mount of academic weeks will be 36, and during the second year – 28 weeks.
5. Preliminary schedule for DP was prepared according to the elective courses of the 9th grades. According to the IB requirements during authorization visit the school has to provide a number of documents among which is a pupil`s schedule, showing the level of academic load.
6. The responsibilities of coordinators and each subject teachers were developed considering the IB requirements.
7. The Plan of professional skills development of teachers working within the Diploma program was reconsidered and approved.
8. Working plan from January 2013 on introduction of IB programs in connection with future introduction of MYP (Middle Years Program) was reconsidered and improved.
9. The list of necessary books for 2013 was formed including textbooks, fiction, encyclopedia and supplementary literature.
10. The application for IB DP authorization was submitted.
11. The preliminary version of authorization visit plan was prepared.

Implementation of all the abovementioned events is the IB requirement for schools waiting for authorization visit.

**Cooperation with international experts**

Intellectual school continues cooperation with international experts – consultants, who assist in the preparation of the Intellectual school for authorization and DP introduction.

Geoffrey Neuss (Chief Examiner of the extended essay in Chemistry, composer of examination-papers for higher and standard levels in IB Chemistry) and Keith Allen (Training officer at IBSCA, Academic Manager at Oxford Study Courses) work with the Intellectual school staff on the issues of organization and execution of documents necessary for authorization. The experts organized individual meetings with the Heads of Departments, administrative and pedagogic staff. The result of the meetings was the deep understanding by teachers and administrative staff of basic documents necessary for authorization.

Bill Roberts – ToK trainer gave a number of workshops for teachers regarding this basic component of the Diploma program. Along with this, B. Roberts is a team member working with authorization visit issues. In this connection, B. Roberts organized and held preliminary authorization visit in order to identify strong and weak points of Intellectual school preparation for authorization. After this visit the Intellectual school took note of all the advice given by B. Roberts and reconsidered the preparation plan.

John Royce – a librarian of one of leading IB schools, an IBICUS trainer who prepares IB schools librarians continues cooperation with the Intellectual school. During this year J. Royce and a librarian of the Intellectual school A. Tolegenova have done great work on the preparation for the DP. With the help of J. Royce Policy and working process in the library were developed in line with IB principles, workshops on preparation of teachers and librarians for assistance to pupils in Extended essay writing were held. Consultation on Academic honesty policy development was given. The librarian and teachers were consulted regarding the choice and order of the necessary resources for the library. Librarian`s duties and responsibilities were developed. The Dewey system was considered, since this system is the closest to other international classification systems used in international universities libraries. Practical application of Dewey library classification was studied. The list of necessary books for 2013 was formed.

Also the following international consultants – experts organized and held subject seminars throughout the year: Birgit Jennings – on Arts, Eunice Price – on History, David Ripley – on English language, Chris Hamper – on Physics, Richard Wade – on Mathematics, Barbara Stefanics – on ITGS, John McMurtry – on Biology and Maria Ines Piaggio – on CAS program.

Experts gave specific recommendations and advice on all questions, which was further taken into account by the working groups on DP documents preparation. The questions regarding elective courses choice within the DP, the organization of international workshops on teachers preparation for DP were discussed; next year working plan on the DP introduction was composed.

**Work with parents and pupils**

Since September 2012 teacher-parent meeting was organized for parents of pupils of 9th grades. At this meeting the teachers of subject groups informed parents about main requirements of each subject in the Diploma Program, then booklets were distributed among pupils and parents on the choice of subjects. It should be noted that in the beginning such meeting was held for pupils of the 9th grades.

At the beginning of October teachers working in 9th grades carried out diagonstic tests to evaluate pupils' knowledge in each subject. Results of this work were considered and discussed at the meeting of pedagogical staff where the issue of choice of subjects bu pupils

was discussed as well. Parents of pupils of 9th grades were informed on the outcome of this meeting.

Examination materials for graduates of 9th classes, as well as preparation of pupils for final examinations in a new format, are currently being developed in accordance with the requirements of International Baccalaureate.

Explanatory meetings on the issues concerning training process on programs of International Baccalaureate were also held for pupils of 7th and 8th grades and their parents.

During regular all-school assemblies, class hours are being held to inform the pupils of Intellectual Schools about key policies of school, and the issue of pupils' evaluation in subjects has been repeatedly considered there. For full preparation of pupils to continue training on Diploma Program elective courses were developed for "Academic research and writing" and "Critical and reflective training". Teachers of these subjects have developed training program in accordance with the requirements of Diploma Program.

A manual is currently being developed to introduce pupils and parents the features of teaching educational subjects on Diploma Program: each subject group and people responsible for each section develop information in accordance to the established and approved format.

**Structure of Intellectual School management**

Following the results of analysis of Intellectual School management efficiency, proposal was made to change the existing structure of Intellectual School at the beginning of 2013. These changes will enable even distribution of duties among all staff members.

International Baccalaureate schools must emlpoy coordinators to supervise implementation of programs. In this regard two coordinators were needed – for Diploma Program (DP) and Middle Years Program (MYP) - reporting to the vice principal for academic work. This allowed to reduce the number of vice principals for academic work that resulted in reduction of position of vice principals at school from 5 to 4.

Upon authorization of high school in IB, a CAS coordinator will be required to supervise implementation of CAS program.

The position of a vice principal for development of human resources has been replaced with the vice principal for development. A similar position is widespread in foreign schools. This employee will be engaged in recruitment and development of personnel, improvement of school management, recruitment and selection of pupils, scientific and methodological work, ICT development at Intellectual School.

**Arrangement and equipment of classrooms and libraries**

According to the requirements of International Baccalaureate classrooms have been arranged and the latest equipment has been installed in chemistry, physics and nanotechnologies classrooms, as well as in chemistry and biology laboratories.

In classrooms arrangement much attention was paid to one of the main issues of International Baccalaureate - a pupil's Profile.

Another important thing for the IB authorization team was to provide for availability and increase in library stocks of educational literature. With due regard to recommendations of the consultant Marc O.M. Abrioux, the librarian is currently working on expansion of school libraru stock together with subject teachers.

**Work to be done in 2013:**

1. Continued approbation of training programs.
2. Development of new training programs conforming to the requirements of Middle Years Program (MYP) of International Baccalaureate.
3. Reconsideration of school politicies.

4. Continue introduction of criteria assessment and collection of assessment instructions for all subjects.
5. Continued organization of seminars for teachers on teaching IB subjects.
6. Continued development of Unit plans.
7. Cooperation with international experts and IB schools.
8. Continued explanatory work with pupils and parents on International Baccalaureate.
9. Creation of optimal conditions for teachers to learn English and teach subject disciplines in English.
10. Providing opportunity to local teachers of each subject to attend foreign conferences, seminars/trainings (that is one of the conditions necessary for authorization on the IB DP & MYP programs).
11. Enhancing cross-cultural awareness of pupils and teachers.
12. Improvement of subjects teaching techniques by means of introduction in educational process of new educational technologies based on conceptual provisions of secondary and high school program of International Baccalaureate (problem and exploratory nature of classes, group technologies, integrated approach to organization of educational activity, transdiciplinarity, developmental teaching, reflection).
13. Intensification of methodological work in subject departments through preparation of methodological solutions, manuals and glossaries in English for all subjects.
14. Continued improvement of teachers' methodological skill.

## 2.3. Polylingual education

**Work done in 2012.**

For approbation, introduction and monitoring of tri-lingual education at Intellectual schools the following documents have been approved:

- Policy of tri-lingual education at Intellectual schools;
- Comparative analysis of number of hours in CEFR and Integrated educational program to evaluate the possibility to achieve levels in languages;
- Program of summer training courses to prepare pupils of 7th and 11th grades of Intellectual schools for integrated educational program.

**Management of tri-lingual education**

Existing documents on tri-lingualism (language policy, feasibility evaluation of language policy, language learning stages) and draft tri-lingual policy implementation strategy were considered during a three-day meeting with representatives of Cambridge International Examination in February, 2012.

The meeting included several events:

- visiting of lessons at Intellectual school of Astana (IB);
- presentation of draft documents on tri-lingualism (language policy, feasibility evaluation of language policy, language learning stages) to representatives of CIE;
- presentation by representatives of CIE;
- discussion of the above documents.

As a result of the meeting *it was decided to:*

- introduce changes in draft documents on tri-lingualism;
- develop long-term and short-term plans for introduction, approbation and monitoring of tri-lingual education (professional development of teachers, development of teachers' materials, training programs, curricula, etc.);
- visit Estonia to study experience of immersion in Estonian language.

In accordance with these decisions:

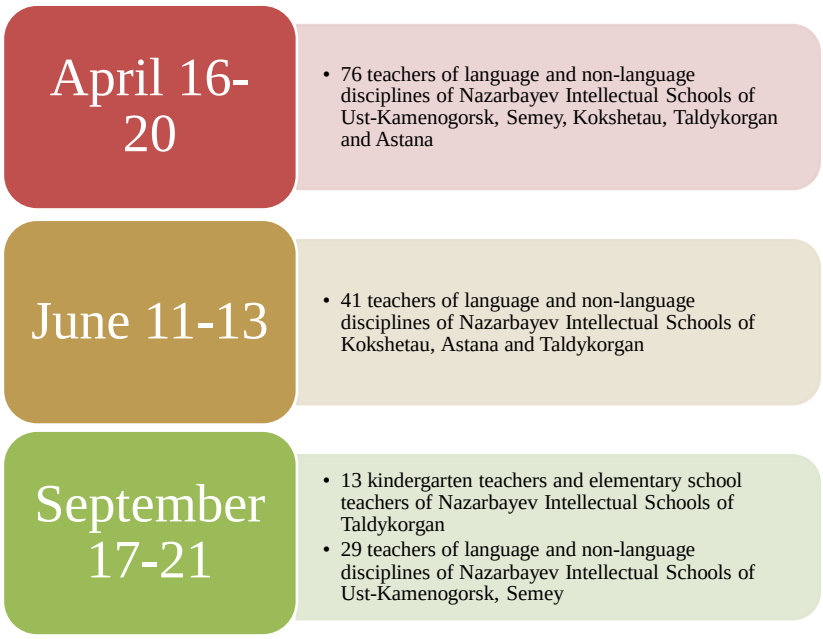
March-December, 2012 – The tri-lingual education policy for Intellectual schools was developed together with resource books for teachers who carry out tri-lingual education.

March 10-17, 2012 – Kazakhstan delegaion visited schools and kindergartens in Estonia, which implement the immersion program, met the representatives of the Ministry of Education of the Republic of Estonia, the Immersion Center, and draft document on "Results-Driven Management (RDM)" was developed and finalized and is now the document on management of tri-lingual education.

**Training of Intellectual School Teachers**

In 2012 with the aim of training of Intellectual School Teachers for realization of tri-lingual education International Consultant, Professor Emeritus of California State University Alan N. Crawford has held 5 seminars for Intellectual School Teachers of Astana, Semey, Ust-Kamenogorsk, Taldykorgan and Kokshetau.

**Seminar period and participants**




Upon completion of the seminars teachers have become familiar with the basic principles of teaching second and third languages. Participants' attention was focused on the importance of mastering the first language as a basis for studying the second and third languages. (*Interdependence Hypothesis, Jim Cummins, 1979*). The teachers had an opportunity to familiarize themselves with such a method as *Total Physical Response (TPR)*, a teaching method through motion or total physical response proceeding from the principle that motion facilitates memorization. The basis of the principle is a learning process of a native language by younger children who firstly react with gestures responding to one or other instructions of their parents as, for example, "Put your toys together" or "Put it on the floor". The method is topical at the initial stages of language learning. A teacher explains a theme with the help of charts, tables, gestures, etc., pupils repeat everything physically what a teacher does in front of them.

Also the teachers became acquainted with *"Common European Framework of Reference for Languages" (CEFR)* which is one of the most important tools in coordinating European national education system to implement the concept of multilingual and multicultural education. The document is needed when using the approach of *Content and Language Integrated Learning (CLIL)* during the classes. The approach (*CLIL*) is used when learning subjects through the second or third language and directed at simultaneous achievement of subject and language goals.

During the practical part of the seminars there were presentations, handouts, group discussion of the work where the participants could apply the knowledge gained in practice.

Furthermore the teachers worked with texts and tried to adapt them in compliance with the level of pupils' language proficiency to make the texts accessible and realizable (*The Input Hypothesis, Stephen Krashen, 1981*). The studied approach allows adapting various types of text and using them with the aim of development of reading skill and critical thinking as well as using when studying subject areas especially in the second or third language. Work with lexical material and development of writing skills have been also considered in the course of seminars. During the seminars the teachers had an opportunity to ask questions of their interest and receive answers to them.

During the seminars held by Alan Crawford there were teachers not only from Intellectuals schools, but Taldykorgan Intellectual School Kindergarten teachers implementing the Kazakh Language Immersion Program.

The Kindergarten teachers became acquainted with a *Natural Approach* implying teaching of a language in the natural conditions using everyday reality situations and aimed at verbal-speaking skill formation. They had an opportunity to work in groups and work out a number of lessons using the natural approach, conversational posters and differentiated approach (taking into account pupils' language proficiency).

At the end of the seminars 4 teacher and trainer resource books on the second and third language teaching using the Communicative Approach, Total Physical Response (*TPR*), Natural Approach, Content and Language Integrated Learning (*CLIL*) have been elaborated.

**Intellectual School Pupils' Training: Summer Language Course Support**

With the aim of familiarization with the work and program of summer language schools within July 4-29 there were visits to the summer language schools Bell International and International House Belfast organized on the base of Kokshetau and Taldykorgan Intellectual Schools. Following the results of visits to Bell International and International House Belfast summer language course program was developed and a letter on organization of summer language courses was sent to the schools.

Due to introduction of the Integrated Education Program into the Intellectual Schools stipulating level language learning as well as subject learning in the Kazakh, Russian and English languages regardless of a medium of teaching there was developed a program of summer language preliminary courses under the Intellectual Schools integrating language disciplines with the following subject areas.

| Grade | Subject | Medium of teaching |
|---|---|---|
| 7 | History of Kazakhstan | Kazakh |
| | Geography | Kazakh |
| | World History | Russian |
| 11 | Kazakhstan in the Modern World | Kazakh |
| | Geography | Kazakh |
| | Literature | Kazakh/Russian |
| | Mathematics | English |

| | | |
|---|---|---|
| | Physics | English |
| | Chemistry | English |
| | Biology | English |
| | Computer science | English |
| | Economics | English |
| | Global perspectives and research | English |

**Early Language Immersion Program**

As a result of visit to Estonia a decision was made to develop and test Early Kazakh Language Immersion Program (for kindergartens and elementary schools) where the language is a goal and leverage at the same time.

Early Language Immersion is one of the most effective methods of child training of a language. Its advantage and strong point is a systemacy, methodological unity and scientific basis.

Kindergarten Language Immersion Program Features are:

- child early language immersion (aged from three years); child teaching in the language within the whole day (full immersion) and no less than half day (partial immersion);
- integrated language teaching: through all the types of child activities and in the form of a game;
- integrated approach at the account of cross-cutting themes.

Pursuant to the agreement with Estonian colleagues in 2012 there were 4 awareness-raising and instructional seminars for Intellectual School Educators on language immersion method, one of which was held in Tallinn, Estonia. Seminar participants were pre-school educators and elementary school teachers.

Seminars were held under the following themes:

"Language Immersion Program in pre-school institutions and familiarization with Estonian experience. Drawing up and introduction of Language Immersion Program in kindergartens";

"Language Immersion Program principles as a basis for elaboration of teaching materials for elementary school";

"Methodological training of pre-school institution and Intellectual elementary school teachers";

"On development of an integrated primer for 1st grade based on the principles of Language Immersion Program";

"Practical familiarization with Estonian language immersion experience".

As a result of the seminars and activities of the Pre-school and Elementary Education Department of Centre for Educational Programs "Nursery Education and Child Training Program on the basis of Language Immersion of Intellectual Schools" had been developed within 2012.

Pre-school education updating on the basis of Language Immersion Program is in the fact that pre-school education process solves child development tasks in every direction. Traditional Kazakh language teaching in the form of a training lesson is renewed by teaching through productive, research activity, through imitation, observation, reflection, feeling, experience, memorization and creative work. The gist of the learning process is closely connected with the Kazakh language mastering.

Scientific findings and practical experience on introduction of the Language Immersion Program in Estonia have showed that pre-school and primary school child language immersion comes easily through musical and physical activity, reiteration of daily routine actions (i.e. everyday iterative performance aspects), and child involvement into active play activity.

Thereupon the development team has developed 27 teaching documents (training pack) to support the Immersion Program including primarily methodological recommendations on physical and musical education, collected songs and games for pre-school children.

Since September 1, 2012 on the base of the kindergarten of Taldykorgan Intellectual School approbation of the developed "Nursery Education and Child Training Program on the basis of Language Immersion of Nazarbayev Intellectual Schools" and a number of supporting teaching documents approbation has been started.

Since September, 2013 opening of the 1st grades of learning immersion in Taldykorgan and Kokshetau elementary schools is planned. The work on elaboration of the integrated primer on language immersion for elementary schools has been started.

Elementary School Language Immersion Program features:

1st grade – teaching only in the Kazakh language;

2nd grade – introduction of the second language (Russian) in the second semester;

3rd grade – introduction of the third language (English);

4th grade – "World cognition" subject teaching in the Russian Language;

5th grade – "Mathematics" subject teaching in the Russian Language;

Subject integration through cross-cutting (interdisciplinary) themes

Kazakh Language Immersion Program approbation in the elementary school is planned since September 1, 2013 on the base of Taldykorgan and Kokshetau Intellectual Schools. By this time elementary school program adaptation, 1st grade integrated primer development and elementary school teachers' training completion is planned.

## 2.4. Educational work

Educational work is being carried out within the approaches to realization of "Educational Work Basic Areas of Intellectual Schools" approved by AEO Board of Regents on November 29, 2011 where the key area is civil-patriotic education of learners.

The important task of educational work of the Intellectual Schools is to create an integral learning environment by narrowing the gap between learning and education, creating mechanisms for consistent introduction of pupil's curricular and extra-curricular activities integration to educate a syntonic personsality.

To create the integral learning environment and educate learners, Unified Organizational Platform and Standards regulating educative policy of the Intellectual Schools have been developed.

The tasks have been implemented through following directions:

***1st direction.*** *Experience studies of the international education models, education problems of children and young people of Kazakhstan, particularly in the issues of formation of values of the Kazakhstani society and civil-patriotic education of pupils, modern education development trends.*

# Studies

| | |
|---|---|
| **International education models (Asian, European, American, Eurasian – Singapore)** | **Values, goals, means = education result** |
| **Education problems of children and young people of Kazakhstan** | **Academic training priority. Morality, diligence, spiritual development, culture and socialization rates are lower academic training. Educative component is on the back burner. Weak attendance of circles, sport sections, passive entertainment leisure activities, negative influence of Internet and mass media, parents' attention deficit, psychological frailty, weak communicative skills** |
| **Issues of civil-patriotic education of students of Kazakhstan** | **They do not think in terms of "we", "together". Imbalance of school, family and society values, gap between social bonds; child, family, school. Gap between teaching and educative processes in the school. Weak understanding of responsibility. Reduction of ethno-cultural values in school, family, society.** |
| **Modern education trends: enough knowledge, more skills, more values** | |

Search of internal and foreign organizations and consultants in the field of integral education and modern approaches to child education was permanently carried out.

Studies show that a way integrating teaching and education is *universal and national values*.

To develop a Concept of educational system of Intellectual schools it was necessary to detect practice of educational work carried out in various schools in Kazakhstan, for this purpose Sange Research Center conducts study on issues of civil-patriotic education, results of which will be received in January, 2013.

***2nd direction.*** *Development of the unified standards regulating educational work in the Intellectual Schools:*

Approved:

- Rules on "Tugan elge tagzym" Local Research Expeditions.
- In the process of development:
- Key values and principles of AEO teaching process;
- Regulation on pupils' self-government and "Shanyrak" School Communities;
- Regulation on disciplinary liability and rewards;
- Regulations of circle, club activities and further education;
- Regulation on social projects and practices;
- Methodological recommendations on organization of educational work in the Intellectual schools.

***3rd direction.*** *Training and teaching*

Within training and teaching following seminars have been held:

- by invited foreign educators working in AEO branches with the aim of determination of new approaches to organization of further education, circle, club work with learners. The result of the seminar is List of required space, facilities and logistics for further education,

circle work, social activity, and leisure time of learners;

- on patriotic education in Singapore. Materials received at the seminar have been reflected in the Methodological Recommendations on organization of educational work where patriotic education is implemented through lesson, extra-curricular work, parents' involvement, organization of social partnership in a local community. Educational and Recreational Center project on the territory of Burabay resort and recreation zone was supplemented with Discovery center to become acquainted with past, present and future of Kazakhstan, "Otan tanu" project was developed – interactive games for Intellectual School pupils;

- on the issues of civil-moral education in the Japanese schools in the context of "Lesson Study" system, held by Dr. Kuno Hiroyuki from Japan (University of Aiwa). The result of the seminar is comprehension of introduction of values into three interconnected aspects; of thinking, feelings, action, what has been reflected in all developing standards and regulations of educational work;

- consultants from Cambridge University proposed a draft of key values and pedagogical teaching principles

***4th direction.*** *Projects*

Completed projects:

- 61 "Shanyrak" School Communities are functioning, created for age communication, building of cohesion and respect, taking care of each other, responsibility;

- "Tugan elge tagzym" Local Research Expedition, expedition features were exchange of routes between the branches, serious preparation in the format "work on the general topic" what let educators and pupils conduct interesting studies of the region they visited. In view of the results of the local expedition collected essays, projects, programs and route reports, photo and video materials gathered by pupils have been posted to the website of AEO and Intellectual Schools;

- "Otan tanu" – "Kasipker" intellectual games, "On-the-spot report" interactive game;

- "Fair school", "I am a part of Kazakhstan", "I study in the Intellectual School" Network Forums;

- "Bookcrossing from Intellectual Schools" network social action for rural general education schools.

## Work to be done in 2013:

The basis of integral environment in school is values, which are systematically inculcated to learners through all the aspects of school life.

Within the project there will be established Project Group on study, development and introduction of values and pedagogical principles into educational process in following directions:

- *studies* of the world practice and internal sources in the field of application of universal and national values in education;

- *organization* of meetings, discussions with foreign and internal consultants to define key values and principles of educational process;

- *conducting* instructional seminars, trainings of educators' personal growth;

- *development* of a draft of key values and principles of educational process, value patterns in the curricula within 6 educational areas and Regulations defining pupils' extra-curricular activity, Guidelines on teaching and assessment of values;

- *support* and creation of resources on application of Guidelines on teaching and assessment of values

- *phased introduction and approbation* of key values and principles
- *assessment of the introduction and approbation process.*

## SECTION 3. DEVELOPMENT OF HUMAN RESOURCES

### 3.1. Development of pedagogic staff

#### 3.1.1. Competitive selection of teachers

Teachers are employed in Intellectual Schools having passed competition procedures such as test, essay, portfolio presentation, interview, etc.

Competitive selection was organized in 2012 for newly founded Intellectual Schools in Pavlodar, Shymkent, Kyzylorda, Taraz, Atyrau, Karaganda and Aktobe.

1977 people took part in this competitive selection for new Intellectual Schools, 566 people received recommendations for employment including 140 people in the candidates pool.

#### 3.1.2. Qualitative composition of pedagogic staff

Teachers are employed in Intellectual Schools on the basis of competitive selection (competition average – 3-4 people per vacancy). This indicator will significantly rise in the future when all Intellectual Schools are set in operation and staffed.

As of December 1, 2012 the Intellectual Schools employ **713** teachers and **165** international teachers to make up the total of **878** teachers.

**Table: Total number of Intellectual Schools' employees**

| | Astana, Physics and Mathematics | Astana, IB | Kokshetau | Taldykorgan | Semey | Ust-Kamenogorsk | Uralsk | TOTAL |
|---|---|---|---|---|---|---|---|---|
| **Teachers** | **126** | **47** | **121** | **118** | **110** | **110** | **81** | **713** |
| **Principal and vice principals** | 8 | 6 | 6 | 8 | 8 | 8 | 5 | **49** |
| **EAP*** | 11 | 11 | 9 | 12 | 10 | 9 | 7 | **69** |
| **Technical personnel** | 39 | 1 | 25 | 38 | 33 | 36 | 32 | **204** |
| **Auxiliary educational staff** | 33 | 20 | 31 | 40 | 35 | 44 | 24 | **227** |
| **Medical staff** | 2 | 1 | 2 | 3 | 2 | 2 | 2 | **14** |
| **Boarding school and preschool** | 0 | 0 | 0 | 31 | 0 | 0 | 10 | **41** |
| **Total regular staffing** | **93** | **39** | **73** | **132** | **88** | **99** | **80** | **604** |
| **TOTAL Schools' employees** | **219** | **86** | **194** | **250** | **198** | **209** | **161** | **1317** |

* EAP – executive and administrative personnel excluding principals and vice principals.

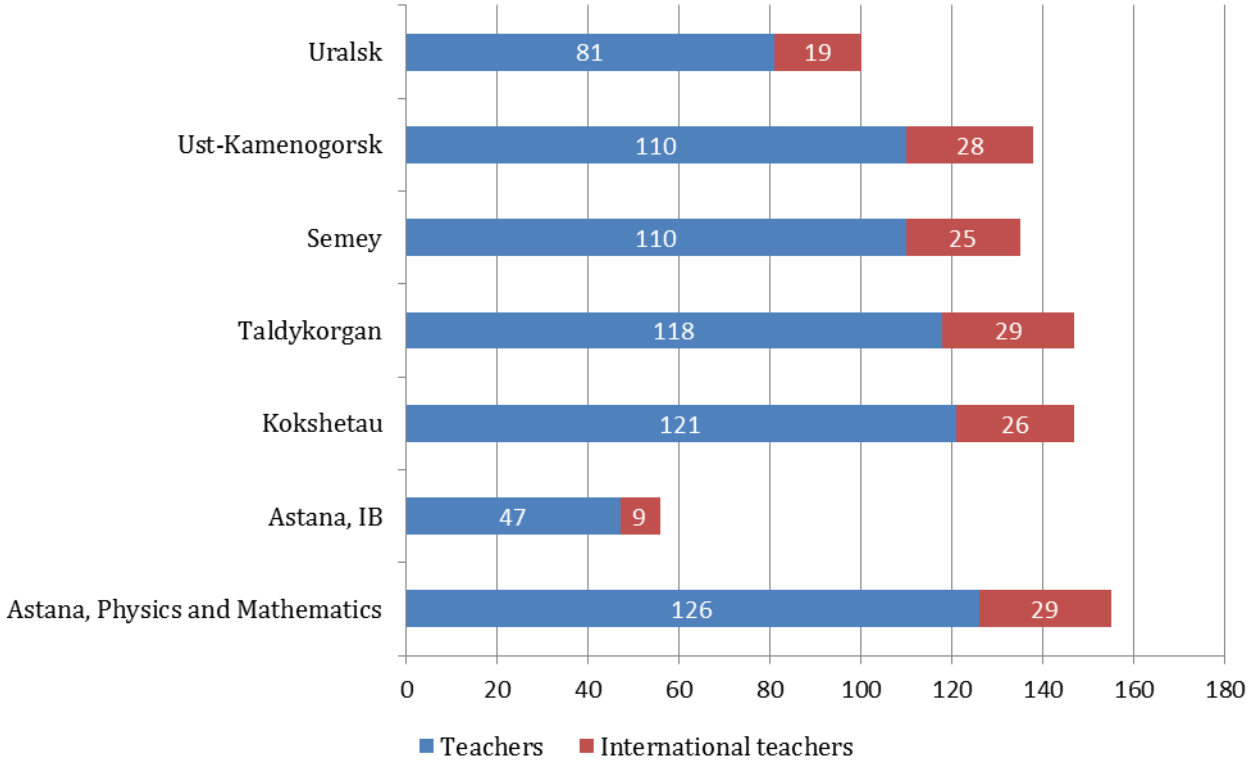
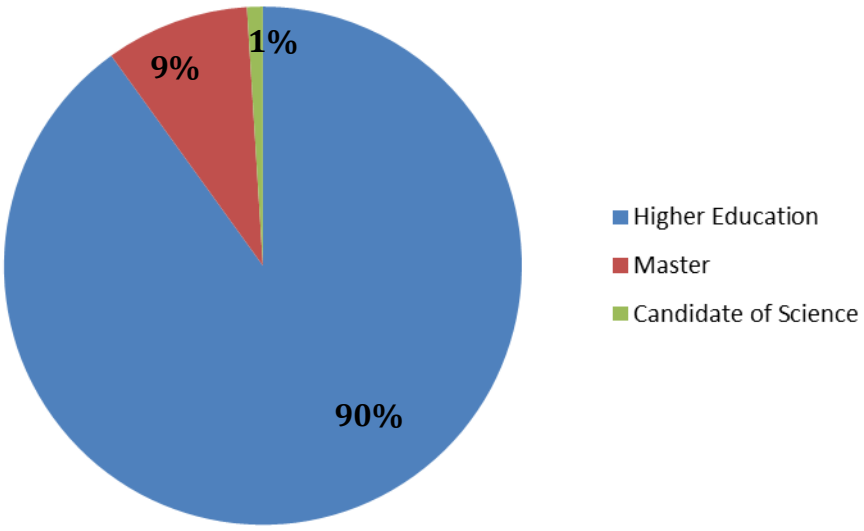



**Chart: Quantitative composition of teachers of Intellectual Schools**

**Chart: Education and academic degree of teachers of Intellectual Schools**



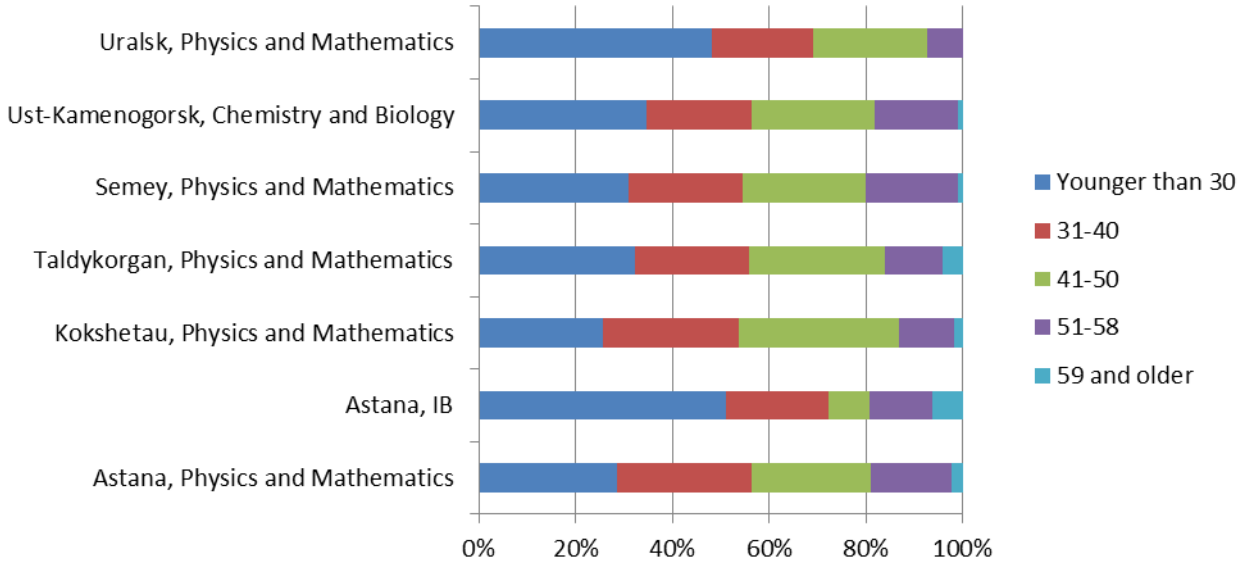

**642** (90%) teachers in NIS have a higher education, **64** teachers hold Master's degree and **7** people are Candidates of Science. Out of the total number of teachers **8** teachers are **Bolashak Scholarship Program alumni**, **7** teachers proceed their studies abroad under this program.

**Table: Record of service of NIS teachers**

| No | Intellectual School | No record of service | Up to 10 years | 11-20 years | 21-30 years | 31-40 years | 41 years and more | Total |
|---|---|---|---|---|---|---|---|---|
| 1 | Astana, Physics and Mathematics | 3 | 36 | 44 | 27 | 14 | 2 | **126** |
| 2 | Astana, IB | 3 | 23 | 12 | 4 | 5 | 0 | **47** |
| 3 | Kokshetau | 1 | 28 | 58 | 19 | 13 | 2 | **121** |
| 4 | Taldykorgan | 3 | 40 | 42 | 22 | 8 | 3 | **118** |
| 5 | Semey | 1 | 39 | 34 | 24 | 12 | 0 | **110** |
| 6 | Ust-Kamenogorsk | 10 | 33 | 27 | 31 | 9 | | **110** |
| 7 | Uralsk | 12 | 28 | 21 | 16 | 4 | 0 | **81** |
| | **Всего** | **33** | **227** | **238** | **143** | **65** | **7** | **713** |

The analysis of qualitative composition of teachers by record of service demonstrated that the majority of teachers have worked at school for about 20 years. NIS teachers' professional development is specific due to continuous interchange of knowledge and experience that is provided by the teachers' qualitative composition - experienced professionals and promising young specialists working together.

**Chart: Age composition of NIS teachers**




The analysis of teachers' qualitative composition by age has shown that teachers are proportionally represented in age groups of "Younger than 30", "31-40" and "41-50" in all schools and make about 30%. The rate of teachers under 30 at the IB Intellectual School in Astana accounts for about 50.1%. The rate of teachers older than 51 years at all Intellectual Schools makes the average of 16.7%.

**Table: Number of NIS teachers broken down by subjects**

| Intellectual School | Mathematics | Physics | Kazakh language | Russian language | Biology | History | English language | Chemistry | Computer science | Geography | Graphic and design | Physical education | Self-cognition | Basic military training | Primary school | Other subjects | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Astana, Physics and Mathematics | 20 | 12 | 14 | 11 | 3 | 4 | 23 | 3 | 4 | 3 | 2 | 7 | 2 | 1 | 10 | 7 | **126** |
| Astana, IB | 6 | 3 | 5 | 5 | 3 | 5 | 5 | 3 | 3 | 1 | 1 | 4 | 1 | 1 | 0 | 1 | **47** |
| Kokshetau | 18 | 11 | 12 | 12 | 3 | 8 | 22 | 4 | 5 | 2 | 1 | 7 | 1 | 1 | 7 | 7 | **121** |
| Taldykorgan | 17 | 9 | 9 | 10 | 2 | 5 | 23 | 2 | 6 | 3 | 4 | 7 | 2 | 1 | 11 | 7 | **118** |
| Semey | 21 | 10 | 10 | 10 | 3 | 7 | 21 | 3 | 7 | 3 | 2 | 4 | 1 | 1 | 6 | 1 | **110** |
| Ust-Kamenogorsk | 10 | 4 | 9 | 10 | 12 | 5 | 24 | 10 | 4 | 2 | 0 | 7 | 1 | 1 | 9 | 2 | **110** |
| Uralsk | 17 | 9 | 8 | 8 | 3 | 6 | 11 | 3 | 2 | 3 | 2 | 6 | 1 | 1 | 0 | 1 | **81** |
| **Total** | **109** | **58** | **67** | **66** | **29** | **40** | **129** | **28** | **31** | **17** | **12** | **42** | **9** | **7** | **43** | **26** | **713** |

### 3.1.3. International teachers at Intellectual Schools

In order to introduce international experience of teaching sciences, integrate Kazakhstan and international educational programs with due consideration of best practices accumulated by world teaching community Intellectual Schools employ foreign teachers.

Results of foreign teachers' employment in 2011, as well as establishment of new branches have shown the need to look for more strategic partners for recruitment of foreign teachers.

The main criteria of selection of companies to be strategic partners were the following:

1. Accreditation in educational organizations;
2. Number of branches in the world;
3. Number of employed teachers per year;
4. International partnership;
5. Company's annual income.

In 2012 the following strategic partners were involved in joint work:

- **Teachanywhere** – Teachanywhere private company is part of Randstad holding, which is the second largest holding in the world working in the sphere of staff recruitment. Teachanywhere company was founded in 2004 has ever since rendered services in recruitment of foreign teachers all over the world. The company is accredited by ISO (International Organization for Standardization), REC (Recruitment and Employment Confederation) and Investors in People (standard for business improvement and quality of work).

The company has offices in 7 countries of the world (Great Britain, North America,

Australia, New Zealand, South Africa, Dubai and Thailand). Teachanywhere has found jobs for over 3000 teachers in 40 countries. The list of its international partners includes such organizations, as Abu Dhabi Education Council, Britain's National Union of Teachers, ESOL Schools and EtonHouse of Great Britain.

- **TIC – Teacher International Consultancy** is an international private consultancy in education founded in 2005 and designed to assists teachers in finding a rewarding job in international schools.

The headquarters of the company are in Cardiff, Great Britain. The company's data base registers 7000 foreign teachers and principals.

TIC is a member of the European Councils of International Schools, British Schools of the Middle East, and Council of British International Schools. At the moment the company is recruiting principals and foreign teachers for schools of Japan, Egypt, Nigeria and Qatar.

- **Search Associates** is an international private company engaged in recruitment of teachers and heads of educational institutions in the international community. In over 21 years it has helped about 17 000 administrators, teachers and trainees of primary and secondary education to find job in international schools around the world. In 2011 they helped 2 198 candidates to get a job and became one of the most successful companies.

They are successful because they don't limit teachers according to employers' criteria; they, on the contrary, are focused on personal qualities of potential employees and support both schools, and teachers-candidates.

Teachers are selected on the basis of questionnaires submitted online. The company has an extensive database of teachers and cooperates with 60 000 schools all over the world. It regularly organizes international vacancy fairs as well.

- **International House** – International House Belfast is a private organization of language schools, a member of International House World Organization. This organization is one of major organizations offering training worldwide. The company was founded in 1953.

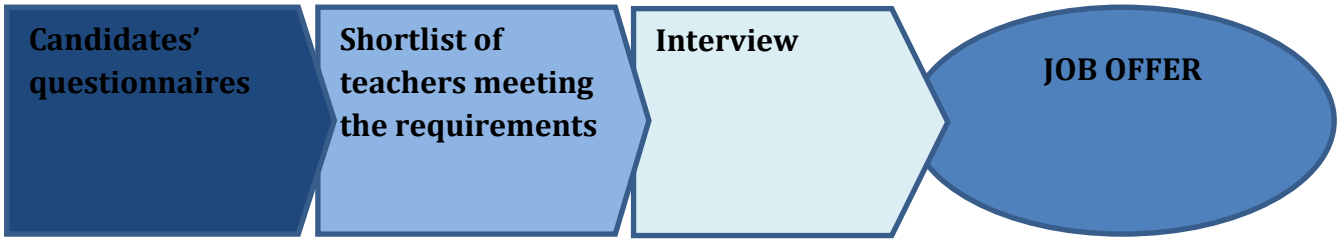
International House Belfast is accredited by the British Council and English UK as the high-quality supplier of English language teaching in global market. The organization network currently unites 150 private language schools in 50 countries of the world. 8000 teachers and trainers are registered in the network of International House schools.

International House Belfast cooperates with Belfast Education and Library Board, General Teaching Council for Northern Ireland, Council for the Curriculum, Examinations and Assessment, Regional Training Center in Northern Ireland. The company is currently engaged in recruitment of foreign teachers for colleges of Turkey and Oman.

In 2012 this cooperation enabled employment of a group of highly qualified specialists of international level – subject teachers from 13 countries.

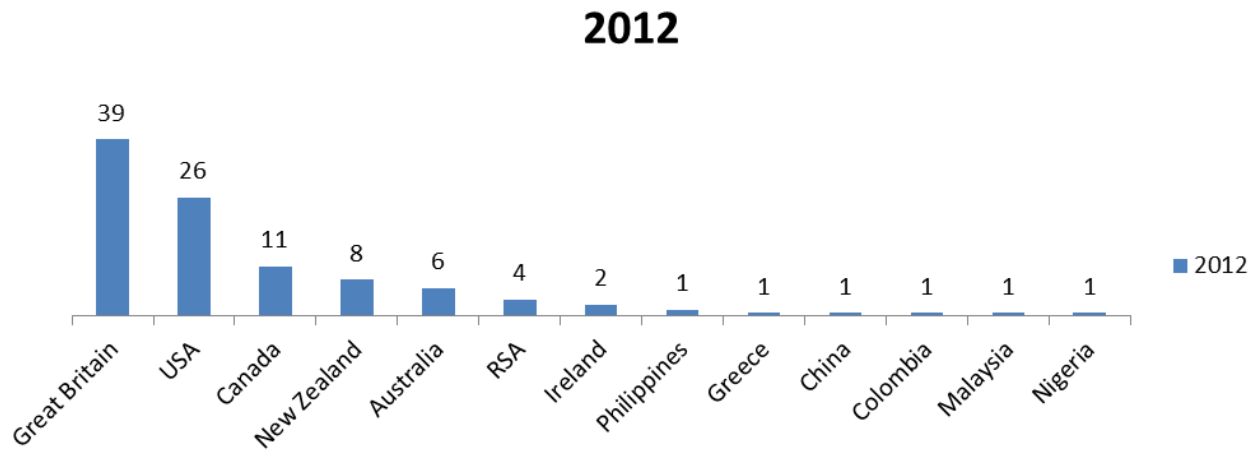
There are four main stages preceeding the beginning of work of a foreign teacher at Intellectual schools:

**Stages of recruitment of foreign teachers**




1. Publication of vacancies in mass media, formation of candidates database;
2. Careful analysis of candidates' questionnaires, selection of qualified teachers;
3. Interview with a candidate;
4. Job offer, employment of a foreign teacher.

**Chart: The share of employed foreign teachers by countries, %**




About one thousand questionnaires from applicants for vacancies have been processed during this year. Therefore, after careful selection and interviews 165 foreign teachers have been hired.

In academic year of 2011-2012:

- 35 teachers were hired
- From 8 countries
- To teach 8 subjects in English language

In academic year of 2012-2013:

- 165 teachers were hired
- From 13 countries
- To teach 10 subjects in English language

More foreign teachers have been employed in Intellectual schools of Astana, Taldykorgan and Ust-Kamenogorsk where the aggregate of over a half (52%) of all foreign teachers work.

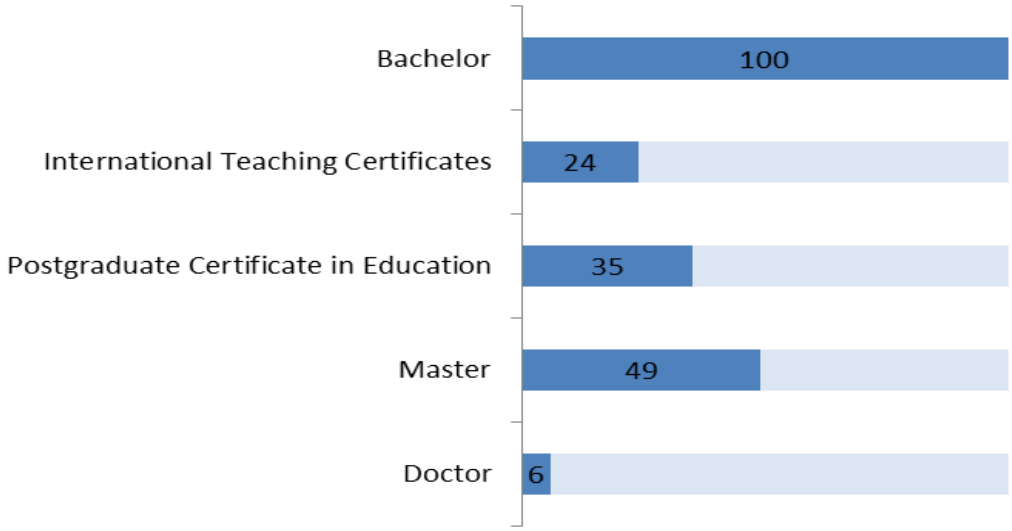
**Table: Number of foreign teachers by subjects**

| | Astana, Physics and Mathematics | Koksheta u | Semey | Taldykorgan | Ust-Kameno gorsk | Uralsk | Astana (IB) |
|---|---|---|---|---|---|---|---|
| **Vice principal** | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| **Group leader** | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| **Librarian** | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| **Mathematics** | 5 | 4 | 4 | 5 | 5 | 2 | 1 |
| **English** | 5 | 4 | 4 | 5 | 4 | 4 | 4 |
| **Project work** | 2 | 2 | 3 | 2 | 2 | 2 | 0 |
| **Physics** | 2 | 2 | 1 | 3 | 2 | 1 | 0 |
| **Computer science** | 3 | 3 | 3 | 3 | 3 | 2 | 0 |
| **Chemistry** | 3 | 2 | 2 | 2 | 3 | 1 | 1 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Geography** | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| **Economics** | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| **Biology** | 2 | 2 | 2 | 2 | 2 | 1 | 0 |
| **Art** | 2 | 2 | 1 | 2 | 2 | 1 | 0 |
| **History** | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| **Theory of self-cognition** | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| **TOTAL** | 29 | 26 | 25 | 29 | 28 | 19 | 165 |

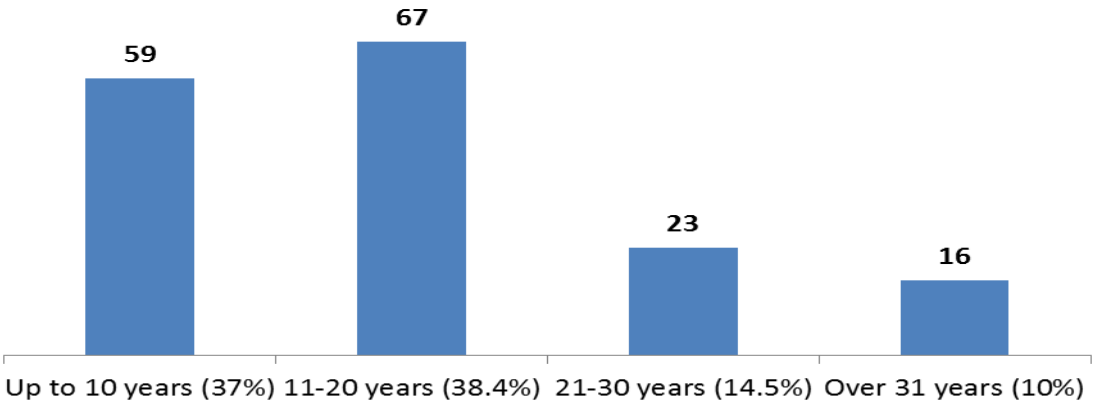
All foreign teachers have relevant higher education. In addition to their main degree about 50% of foreign teachers have master's degree, 25% of teachers have additional qualifications on the basis of such international organizations such as Cambridge University, International Baccalaureate, etc., 9 people have a doctor's degree.

**Table: Share of employed teachers by qualification levels, %**




It should be noted that experience is a key factor for the offer to hold a vacant position. About 40% of people have working experience of 11-20 years. This enables necessary expert evaluation of effective realization of educational process.

**Graph: Experience of foreign teachers**




The range of functions of foreign teachers is rather wide due to additional educational work they do. Teachers prepare pupils to take **SAT** and **IELTS** examinations, take active part

in organization of **“Smart Thursdays”**, **“Schools of young specialists”**, **creative writing clubs**, **drama** in English, **school newspapers** in English, etc.

Moreover, **Team teaching** system is being introduced within the framework of a project when there are two teachers in a class – one Kazakhstan and one foreign; they work at the same time and teach subjects in first and third languages. At the same time, this project is necessary at the initial stage of development of Intellectual schools due to deficiency of highly qualified domestic specialists. Gradually, with an increase in quality of personnel foreign teachers will be replaced with Kazakhstan teachers of high professional level.

### 3.1.4. Professional development of teachers

Teachers of Intellectual schools raise the level of their professional competence through custom-tailored **System of professional development of pedagogic staff** of Intellectual schools**.**

The system of professional development includes:

- courses in Intellectual schools;
- courses in the country;
- courses abroad;
- on-line, off-line courses.

Training at Intellectual schools is organized according to "peer-to-peer" principle, i.e. training by colleagues (languages are taught by teachers of the Kazakh and English, ICT – by teachers of computer science). This enables the use of the full teachers' potential who have fundamental subject preparation and have passed through competitive selection in Intellectual schools. Moreover, such training is the least costly.

Training in the country is organized with involvement of experts of national and international levels.

Training abroad is carried out in the best educational organizations with involvement of experts of international level.

On-line, off-line training is carried out with the use of resources of schools' information and communication system.

**Advanced training courses**

Theme-based units were formulated for 2012 courses taking into account the goals of teachers' professional development in Intellectual schools; it is necessary to mention the following.

In 2012 the body of certified trainers on various programs made of teachers of AEO branches considerably replenished.

**48 teachers** – Critical thinking (Cambridge University certificates).

**30 teachers –** “Developing children’s aptitudes” program (the Center for Talented Youth at the Johns Hopkins University, the USA).

**20 teachers** – were trained in English to acquire skills of teaching a subject in English (TKT).

**35 teachers –** trainers of the third (basic) level of the Program for professional

development of teachers in general education schools, prepared by the Center of Excellence together with Cambridge University (Great Britain).

**100 teachers** were trained at one-year advanced training course at Nazarbayev University.

Much attention is being paid to development of teachers' language skills. For this purpose special courses for teachers' training in English and for development of language competencies of English teachers are organized on a yearly basis. **In the past two years 1084 teachers have been trained on English language courses of various complexity and duration**; a one-year professional development program (PDP) was organized at Nazarbayev University for 100 subject teachers and English teachers.

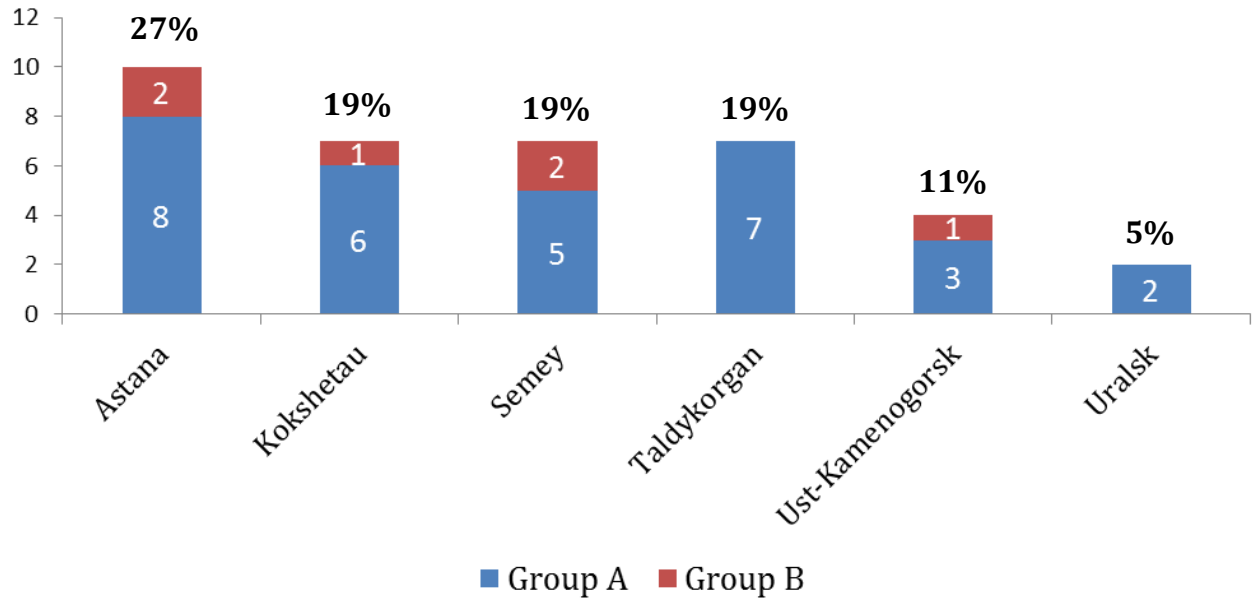
Training of certified trainers allows to considerably increase the number of courses at Intellectual schools in the module of "Pedagogic Knowledge" by introduction of critical thinking, work with gifted children, in accordance with the Program of the third (basic) level prepared in cooperation with Cambridge University. These courses promote effective introduction of programs in educational process and as a result positively affect its quality.

The monitoring of professional development system provides:

- formation of teacher's **achievements portfolio** that will be represented within the framework of interim monitoring (once a year) and final attestation;
- a teacher demonstrates how he or she uses the skills and knowledge obtained during training in practice (master class, etc.);
- analysis of pupils' progress dynamics;
- teacher's attestation once a year;
- obtaining certificates.

In 2012 within the "English" module of PDP 37 people from 6 Intellectual schools were trained abroad. Teachers of such subjects as mathematics, physics, chemistry, biology and computer science took part in a course of intensive English conducted in Belfast (Ireland). It is remarkable that knowledge of these participants showed positive dynamics on the following Placement test which was carried out by the British Council; **14 people out of 20 (70%) improved their English knowledge** by one level.

**Chart: Number of participants by cities and level of English knowledge**



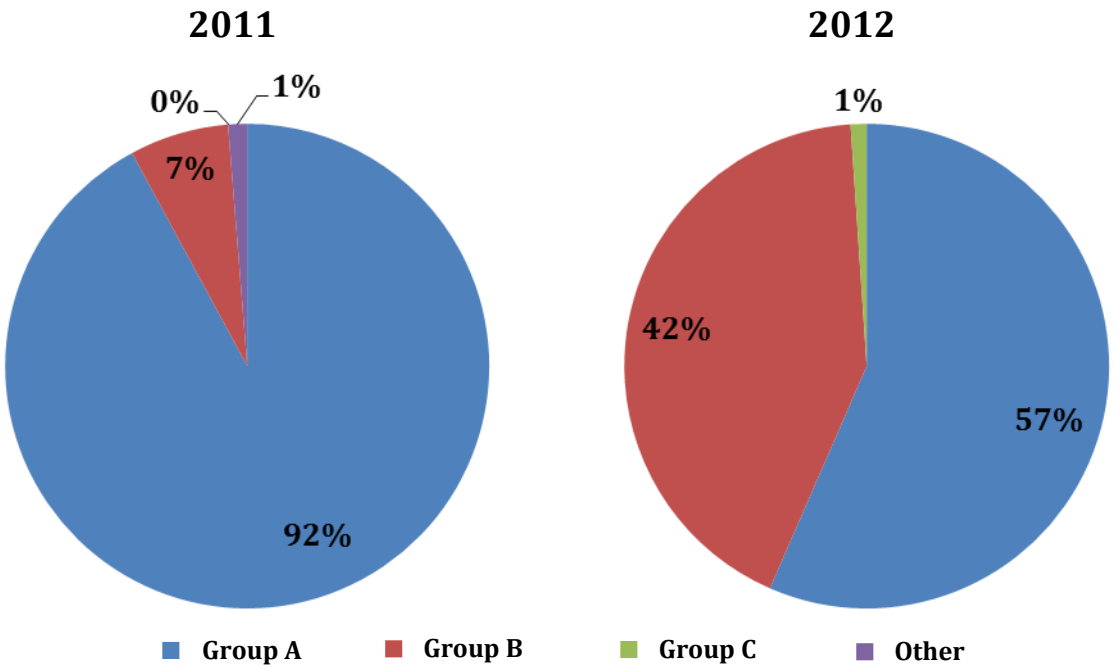
Analysis of the first results of the professional development system implementation shows that level of teachers' professional competencies at the Intellectual schools has soared.

Language courses significantly improved professional competencies of the English language teachers.

In 2012 the British Council administered the **Placement test** for **658** out of **713** teachers and tutors working for the Intellectual schools, i.e. over 90% of the total number of teachers. In 2011 it made up 76%. The number of participants who passed the test increased in comparison with 2011 because of teachers of Intellectual school of Uralsk opened in 2012. The test was divided into three sections of a more advanced level than in the previous year: Grammar, Vocabulary and Reading.

The test has 6 levels united in three groups. Group "A" - basic and elementary levels; Group "B" - intermediate and upper intermediate levels; Group "C" - advanced and proficiency levels.

**Chart: Share of teachers by groups of levels**



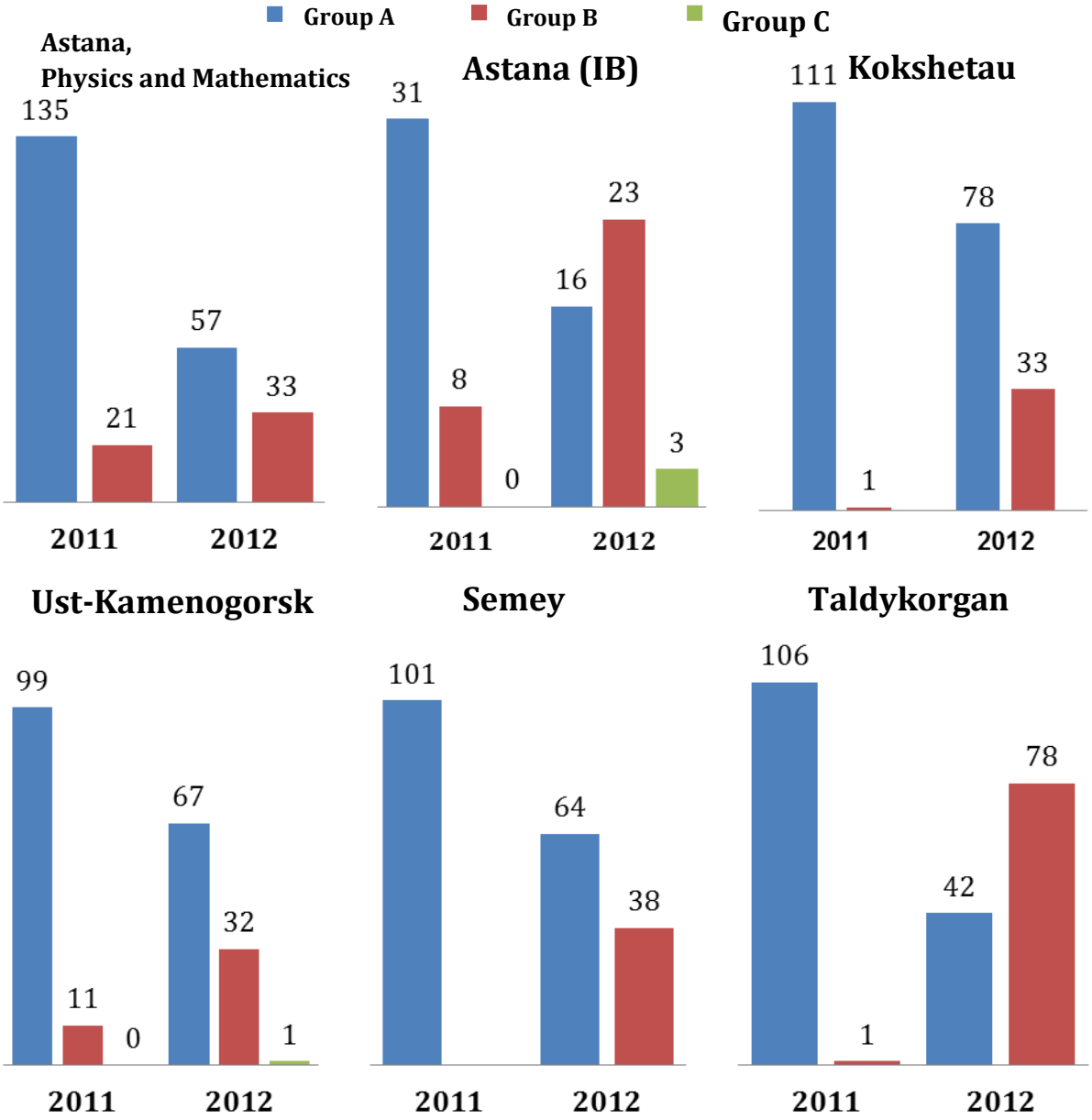

Test results indicate the qualitative improvement of teachers' composition and qualification. Thus, the share of teachers with the intermediate level of English has considerably increased, in quantity this indicator has increased by over five and a half times. Moreover, seven teachers managed to raise their level of English knowledge to advanced in 2012.

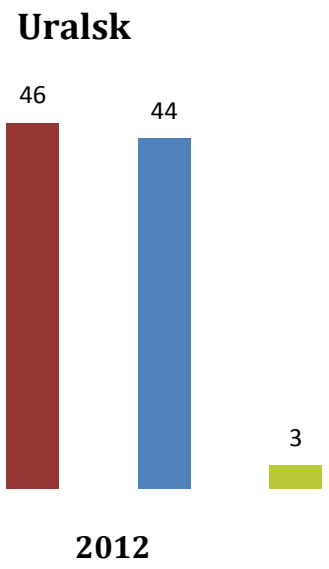
3 teachers in Intellectual school in the cities of Astana (IB) and Uralsk have demonstrated the knowledge of "C" group - advanced and proficiency language skills. One teacher at Intellectual school of Ust-Kamenogorsk has shown equal knowledge. It should be noted that in previous year there were no cases of advanced knowledge of English.

The greatest share of teachers who have the intermediate level "B" of those having been tested is concentrated at Intellectual schools of Taldykorgan (12%), Uralsk (6%) and Semey (6%). Intellectual schools have also managed to improve the quality and considerably increase the number of teachers with intermediate and upper-intermediate knowledge of English.

At the same time, attention should be paid to development of language skills of teachers at Intellectual schools in Kokshetau, Ust-Kamenogorsk and Semey, where three quarters of teachers have basic or elementary knowledge of English..

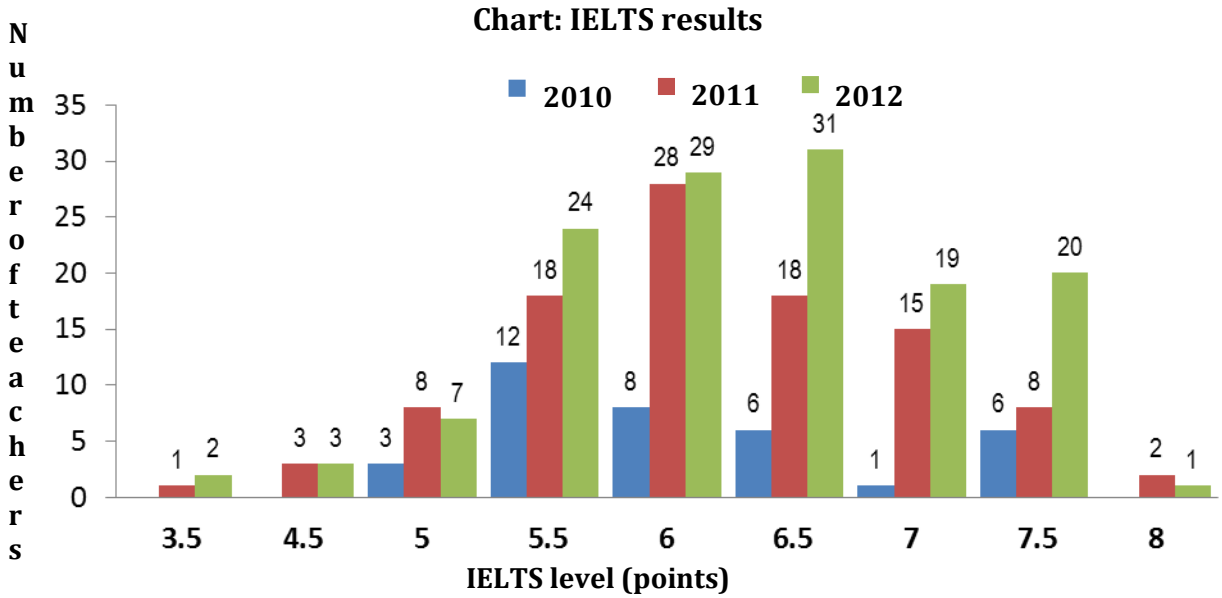
**Chart: Number of teachers in each group of levels by schools**






Thus, we can summarize that the general tendency of teachers' qualitative composition has positive dynamics throughout the system of Intellectual schools, namely, the number of teachers with elementary level of English knowledge is going down while **the number of teachers with intermediate or upper-intermediate knowledge of English is going up**. The results of newly opened Intellectual school in Uralsk where the number of teachers with upper-intermediate or advanced level more than that with elementary knowledge are very indicative. In this regard it is necessary to mark the value of advance preparation of teachers (including profession-oriented subjects) during professional development course at Nazarbayev University (only 12 graduates of the specified courses).

Improvement of teachers' language skills is proved by the results of international qualification examination of competence level in English - IELTS.




In 2010 36 English teachers obtained certificates in IELTS examination, the average level of **6.1**; in 2011 101 teachers received certificates with average of **6.2 points**, and in 2012 the average made up **6.3 points** with the total of **136** teachers including subject teachers.

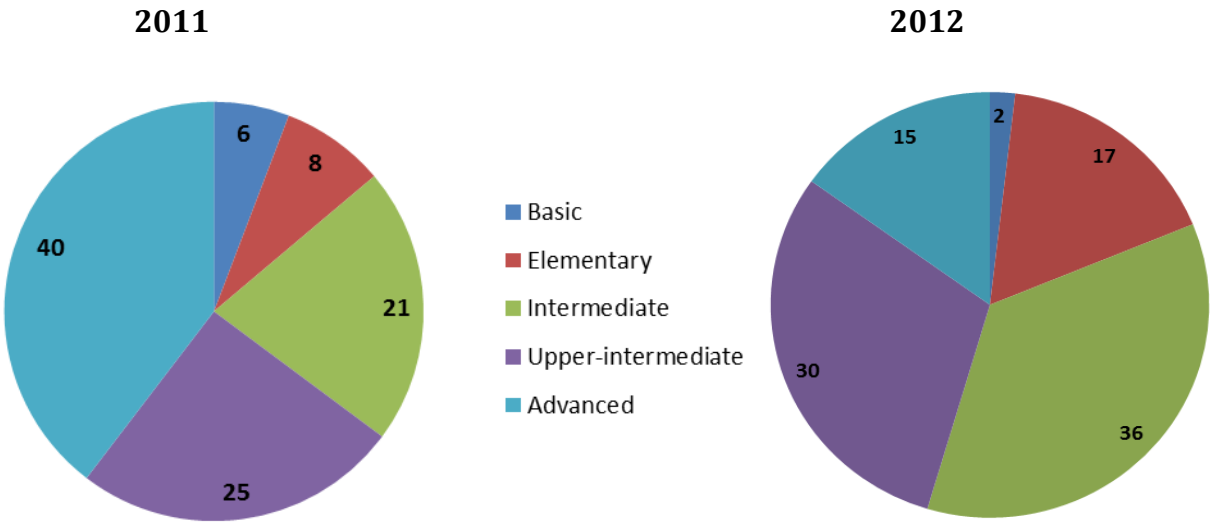
Moreover, in the previous reporting period the **absolute majority (74%) showed good results**, having passed the difficult test of English knowledge for teaching of special

disciplines (TKT).

In 2012 808 people passed **Kaztest**, carried out by RSCE "National Testing Center", that makes 97% of the total number of teachers and executive and administrative personnel, including principals and vice principals. In 2011 this indicator amounted to 85%. 361 teachers received the certificate in 2012 that makes up 45% of the total number of teachers.

Comparative analysis of Kaztest results carried out in 2011 and 2012 has shown that the proportion of teachers who have reached advanced level of Kazakh knowledge has grown in comparison with 2011, from 15% to 40%.

**Chart. Kaztest results in 2011 and 2012 by number of teachers**




Results of teachers at Intellectual schools of Taldykorgan and Ust-Kamenogorsk turned out to be the most stable, while teachers of Intellectual school in Uralsk, who took Kazakh language test for the first time, showed the best result.

The analysis of results of 2012 show that at Intellectual schools of Semey and Ust-Kamenogorsk 50% of teachers with certificates have high level of Kazakh knowledge.

To sum up, it can be said that the overall level of Kazakh knowledge is rising considerably, in particular, the number of teachers with basic knowledge is going down while the number of teachers with advanced level of Kazakh knowledge is going up.

A course of professional development has been conducted at Intellectual schools of Astana, Semey, Taldykorgan, Kokshetau and Ust-Kamenogorsk in order to increase of level English knowledge of subject teachers by means of in-service education with the use of **English Discovery Online** multimedia training program developed by Edusoft company.

In total the course covered 200 teachers:

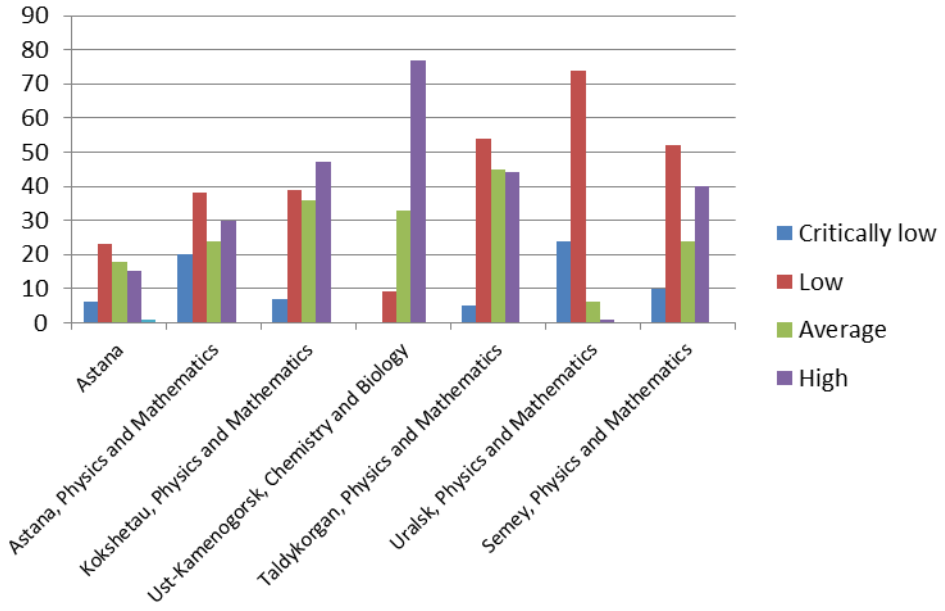
Main goals and tasks of such distance course were the following:

1. To provide an opportunity to all course participants to study according to flexible schedule at any convenient time.
2. To promote comprehensive development of language competencies of teachers (listening - reading - speaking - writing).
3. To develop practical skills in English educational Internet resources.
4. To develop overall computer literacy and technological competencies.
5. To develop the skills of independent work with modern educational resources.

In 2012 801 took **a test for the level of ICT competence** of pedagogical staff at Intellectual schools that makes up **97%** of the total number of teachers and executive and administrative personnel, including principals and vice principals. The test was carried by out the educational and methodological center "Perspektiva". In 2011 this indicator made up **89%.**

The general level of teachers' knowledge in the field of information and communication technologies was estimated on the basis of results of all test stages. Thus, **440** teachers have good knowledge of information and communication technologies that makes up 55% of the total number of test participants while 289 (36%) teachers have high or average level of knowledge and 72 (9%) teachers are on a low or critically low level.

**Chart: Level of ICT competence of teachers at Nazarbayev Intellectual schools following test results of 2012.**




The chart indicates that the highest level of ICT proficiency is shown by the teachers of Intellectual school in Ust-Kamenogorsk, 65% of the total number of teachers of this school have shown excellent results in this research. Teachers of Intellectual schools in Kokshetau, Semey and Taldykorgan have good knowledge as well. The lowest level of ICT knowledge is found among teachers of Uralsk where they have only started the in-school courses. On the start only 1% of Uralsk teachers have high level of ICT competence.

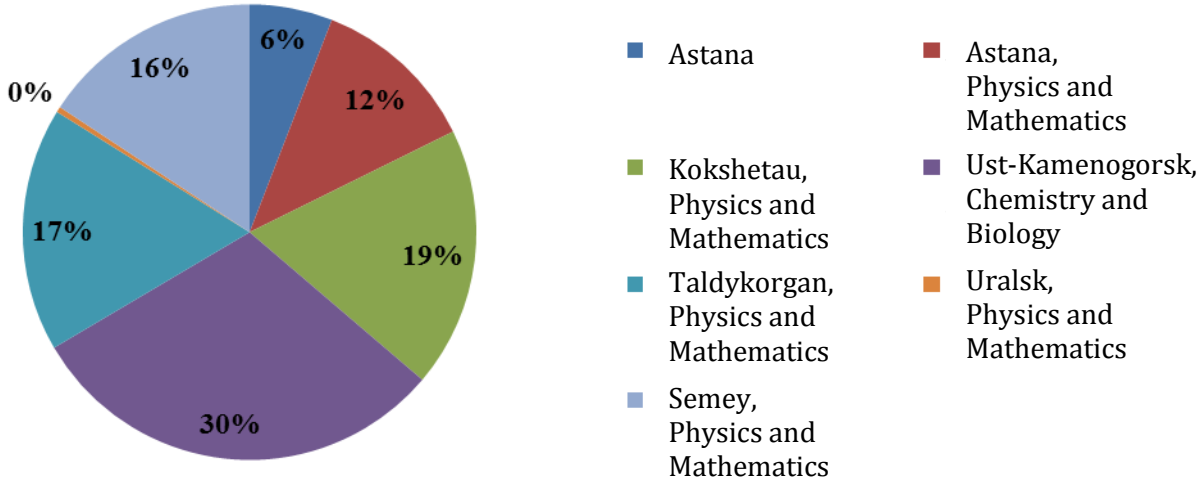
The analysis of tests held in 2011 and 2012 has revealed positive dynamics in the level of ICT competence among teachers who took part in research for the second time and amount to 479 teachers. Thus, it is obvious that qualitative improvement of composition and qualification of teachers is a result of training on courses in Intellectual schools.

Positive dynamics is also observed at Intellectual schools in the cities of Astana (Physics and Mathematics), Taldykorgan (Physics and Mathematics) and Astana (IB). Therefore, these Intellectual schools managed to introduce positive changes and considerably increase the number of teachers with average or high ICT competence. Thus, in comparison with 2011, 38% of teachers have raised their level of competence while 46% of teachers have confirmed their level.

The biggest share of teachers who have shown stable dynamics is concentrated at Intellectual schools of Ust-Kamenogorsk – 59%, Taldykorgan – 50%, Semey – 48% and Kokshetau – 45% of the total number of participants in 2011 and 2012.

Following the results of test in 2012, the pedagogic staff with high ICT competence works for Intellectual schools in Ust-Kamenogorsk, Kokshetau and Taldykorgan.

**Chart: Teachers with high ICT competence by Intellectual schools**




At the same time, it is necessary to pay attention to the development of ICT competence among teachers at Intellectual schools of Uralsk, Astana (Physics and Mathematics) and Semey, where the number of participants with critically low or basic ICT knowledge is more than one quarter.

**Professional development at Nazarbayev University**

The reporting period saw the implementation of a joint project with Nazarbayev University "One-year course of teachers' professional development for newly opened and operating Nazarbayev Intellectual schools". 100 teachers took this course based on the programs, prepared Nazarbayev University in cooperation with UCL (University College London).

The goal of the project was to provide targeted advance preparation of teachers with English knowledge for newly opened and operating Nazarbayev Intellectual schools, master advanced pedagogic theory and practical methods of teaching to provide for highly-qualified staffing.

The course has the following objects:

- enhancement of English knowledge;
- teaching strategies, including personal education and independent development of a pupil;
- techniques of critical thinking development;
- reflection practice;
- teaching to carry out research projects in class;

techniques of teaching subjects in English (CLIL);

- application to information and communication technologies in class.

**Table. Dynamics of IELTS examination results among participants of the course**

| **Examination results in points** | **8** | | **7.5-7.0** | | **6.5-6.0** | | **5.5-5.0** | | **4.5-4.0** | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Number of** | **2011** | **2012** | **2011** | **2012** | **2011** | **2012** | **2011** | **2012** | **2011** | **2012** |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **teachers** | 0 | 2 | 10 | 15 | 46 | 66 | 30 | 14 | 14 | 0 |

**Table. Information on the number of participants by oblasts**

| No. | Oblast | Number of teachers |
|---|---|---|
| 1 | Akmola oblast | **3** |
| 2 | Aktobe oblast | **9** |
| 3 | Almaty oblast | **4** |
| 4 | Atyrau oblast | **3** |
| 5 | East Kazakhstan oblast | **10** |
| 6 | Zhambyl oblast | **7** |
| 7 | West Kazakhstan oblast | **10** |
| 8 | Karaganda oblast | **13** |
| 9 | Kostanay oblast | **2** |
| 10 | Pavlodar oblast | **7** |
| 11 | North Kazakhstan oblast | **7** |
| 12 | South Kazakhstan oblast | **4** |
| 13 | Almaty | **4** |
| 14 | Astana | **17** |
| | **Total** | **100** |

**Table. Number of teachers by subject areas**

| No. | Subject | Number of teachers |
|---|---|---|
| 1 | English | **70** |
| 2 | Biology | **1** |
| 3 | Chemistry | **4** |
| 4 | Computer science | **6** |
| 5 | Geography | **2** |
| 6 | History | **3** |
| 7 | Kazakh language | **3** |
| 8 | Mathematics | **7** |
| 9 | Physics | **2** |
| 10 | Russian language and literature | **2** |
| | **Total** | **100** |

One of the stages of training was passive and active internship in Nazarbayev Intellectual schools, Miras International Baccalaureate School, and Hayleibury School.

During their practical training teachers developed abilities to analyze pedagogic situations in their development, to foresee nearest and distant results, to set concrete pedagogic tasks both incremental and urgent.

Each course participant worked over the subject of research in action. Following the analysis 13 best projects were published in the final collection of works. Project participants presented reports at the international conference on "Modern Trends in Education-2011", held in Nazarbayev University.

Training results were estimated by international examinations (TKT, CLIL, IELTS). In

general the monitoring indicates positive dynamics of these results.

Thus, the pedagogical community of teachers of Intellectual schools replenished with highly skilled team of teachers, including subject teachers who are able to carry out polylingual training.

**"Basics of Robotics" elective program**

In 2012 professors of robotics at Nazarbayev University developed the program on "Basics of Robotics" elective course for pupils within the framework of teachers' professional development. This program is logical continuation of the elective course under the same name in the program of 5-9th grades of Nazarbayev Intellectual schools and is focused on practical approach based on development of projects.

Education is carried out with the use of VEX Robotics teaching construction kits - the advanced educational platform enabling pupils to gain construction experience and fulfill their potential, develop essential knowledge and skills to achieve success in the XXI century. Work in this program will help pupils to apply their knowledge of mathematics, physics, computer science in practice – in robotic systems, thus developing research, design and communicative skills.

**Work to be done in 2013 in the field of teachers' professional development:**

According to professional demands and strategic objectives of the System of professional development the theme coverage of advanced training courses inside the country and abroad will include the following units:

- practical introduction of the integrated educational programs;

- features of team teaching of Kazakhstan and foreign teachers;

- practical application of innovative methods in teaching;

- change of teaching environment;

- approaches to introduction of values in educational process;

- development of pupils' talent;

- independent external evaluation of language and subject competencies (Kaztest, TKT test, IELTS, Placement Test, ICT test);

- online training in English and ICT (UNESCO standards);

- management and leadership in education;

- definition of conceptual approaches of educational system;

- media maintenance of educational process.

### 3.1.5. Certification of pedagogic staff in branches of AEO "Nazarbayev Intellectual Schools"

The main objectives of certification are:

a) realization of mission of Nazarbayev Intellectual schools through stimulation of

professional growth of pedagogic staff;

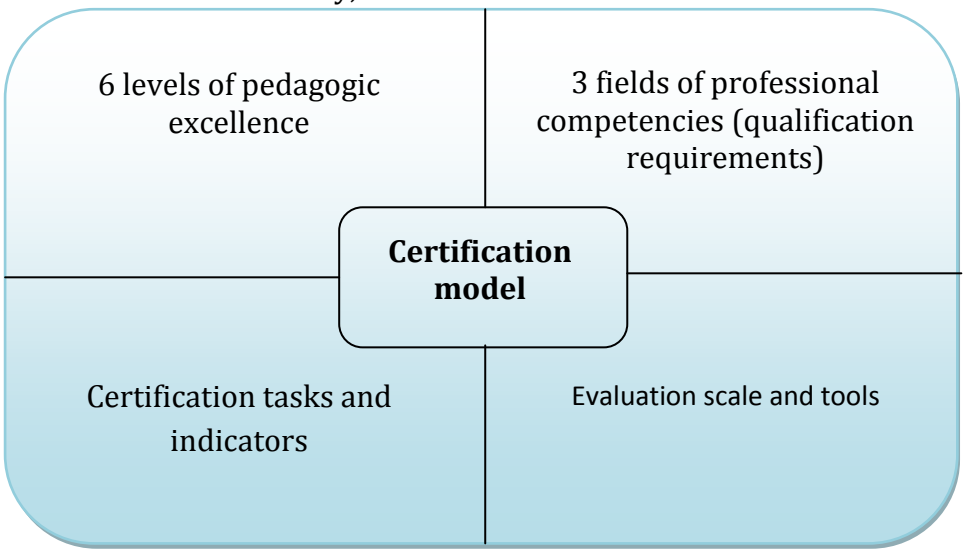
б) identification of competence level of pedagogic employees for a certain position and their correspondence to qualification requirements for achievement and confirmation of an appropriate level;

в) stimulation of professional development of pedagogic employees,

г) ensuring differentiation of remuneration for pedagogic employees according to their teaching skill.

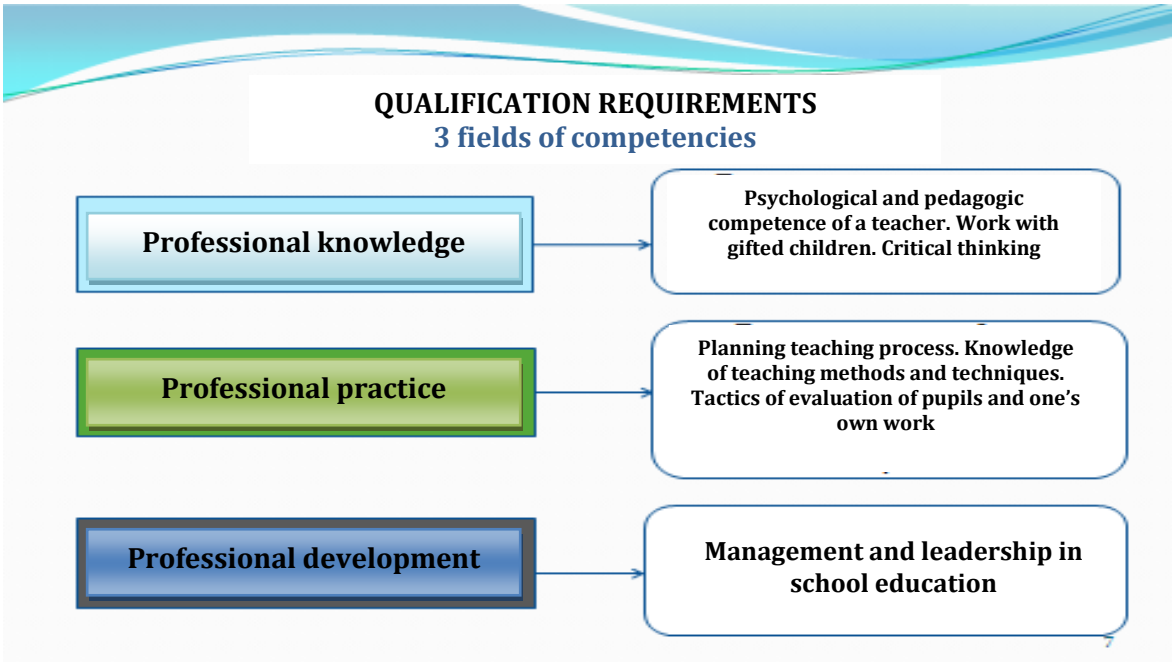
**Certification of pedagogic staff (subject teachers).**

Specially developed model of **certification of pedagogic employees** at Intellectual schools was launched in February, 2012. The model includes:




Upon decision of the Board of AEO "Nazarbayev Intellectual Schools" of January 6, 2012 the Rules of certification, qualification requirements to 6 levels of pedagogic excellence and certification tasks were approved. Six levels of pedagogic excellence are: **teacher-trainee, teacher, teacher-moderator, teacher-expert, teacher-researcher and teacher-specialist**.

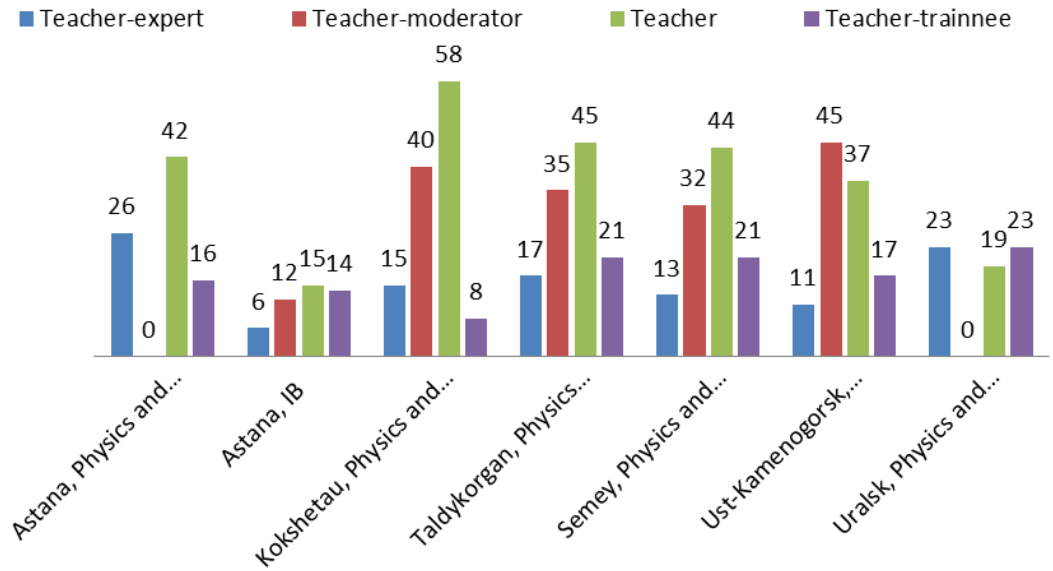
The competencies of teacher that are necessary for high-quality teaching are equally distributed between three fields of competencies defined separately for six levels in qualification requirements: professional knowledge, professional practice and professional development (fig. Qualification requirements, 3 fields of competencies)




In order to see a more objective picture during its decision-making the certification commission is guided by the opinion of an Intellectual school. That is why the certification model provides for the institute of the authorized representative as one more evaluation instrument that is represented by evaluation sheets. Evaluation sheets for a set of estimated competencies coincide with three fields of qualification requirements. Evaluation sheets of identical form are filled in by, first of all, the certified person oneself, secondly, by the authorized representative (a colleague of the certified person) and, thirdly, by the key informant (the representative of administration of Intellectual school).

A very important criterion of evaluation is a teacher's "contribution to the development of Intellectual school". This is because Intellectual schools attach great importance to the creation of pedagogic community which is impossible without effective interaction between colleagues in one school. The results of external examinations (Kaztest, IELTS/Placement test and ICT test) are also taken into account by members of certification commission when they decide to assign one or another level.

**Chart: The level of professional excellence of teachers at Intellectual schools**



According to the results of certification of 2012 in the network of Intellectual schools 19% are teachers-experts, 40% are teachers-moderators, 30% are teachers and 10% are teachers-trainees. There are still no pedagogic employees with the highest levels pedagogic excellence - teachers-researchers and teachers-specialists in the network of Intellectual schools. According to the qualification requirements such teachers are required to have achievements on the level of Intellectual schools network and on the international level, teach and train not only pupils, but also their colleagues, carry out research, develop author's educational programs and techniques.

Teachers-trainees are pedagogic employees with less than 2 years of working experience; they are mainly graduates of higher education institutions having good subject knowledge, but still lacking teaching technique.

Teachers are pedagogic employees with working experience of more than 2 years, having more profound knowledge of pedagogic methods and pupils' evaluation techniques.

According to qualification requirements to confirm the level of a teacher-moderator one has to have vast experience in work with gifted children, have skills to diagnose pupils' abilities, and master critical thinking. Meanwhile, a teacher-expert acts as an instructor for one's colleagues, develops educational programs, has high professional achievements in one's subject sphere.

**Certification of principals and vice principals**

Certification of principals and vice principals of Intellectual schools was carried out in April, 2012. A special form was developed for evaluation of this category of pedagogic employees of Intellectual schools which considered such aspects as: communication skills (ability to work with personnel, skills of cooperation with public and parents), stress-resistance, ability to plan and distribute resources for management, etc.

Following the results of official evaluation two vice principals - for financial and economic activity - weren't certified.

**Certification of persons equated to pedagogic employees**

Certification of the persons equated to pedagogic employees (tutors, additional education teachers, teacher-logopedist, educational psychologist, methodologist of teaching department, inspector for professional orientation work, music leaders, choreographers) was carried out in May, 2012.

**Certification results.**

Results of the carried-out certification of pedagogic employees and persons equated to them are shown in the following tables.

**Table. Number of pedagogic employees and persons equated to them, who passed certification**

| Categories of pedagogic employees and persons equated to them | Number, people |
|---|---|
| Teachers of all subjects | **575** |
| Principals and vice principals, head of kindergarten and preschool | **9** |
| Tutors, additional education teacher, music leaders, choreographers | **140** |
| TOTAL: | **724** |

**Table. Qualitative composition by levels of pedagogic excellence following certification results of 2011-2012 academic year**

| School | Number of teachers who applied for certification, people | Level of pedagogic ecxellency | | | | Total number of the certified, people |
|---|---|---|---|---|---|---|
| | | teacher-trainee | teacher | teacher-moderator | teacher-expert | |
| **Astana, Physics and Mathematics** | 115 | 3 | 33 | 43 | 29 | 108 |
| **Astana, IB** | 47 | 0 | 3 | 13 | 10 | 26 |
| **Kokshetau, Physics and Mathematics** | 119 | 1 | 20 | 46 | 16 | 83 |
| **Semey, Physics and Mathematics** | 115 | 16 | 43 | 37 | 16 | 112 |
| **Taldykorgan, Physics and Mathematics** | 113 | 24 | 41 | 43 | 23 | 131 |
| **Ust-Kamenogorsk, Chemistry and Biology** | 118 | 13 | 35 | 50 | 17 | 115 |
| **Total:** | **627** | **57** | **175** | **232** | **111** | **575** |

A survey of pedagogic employees of Intellectual schools was carried out after certification. Teachers of Intellectual schools note that the certification promoted:

1. identification of strong and weak points of each pedagogic employee;
2. more conscious consideration of individual development paths (driving directions);
3. differentiation of pedagogic staff on the basis of professional excellence;
4. development of tradition of self-evaluation;
5. definition of opportunities, potential for interaction (inside the network);
6. consolidation of accumulated pedagogic and administrative experience.

According to feedback high-quality professional growth of pedagogic employees of Intellectual schools requires the following:

1. Intensified training of pedagogic employees on in-school courses for professional development in ICT and language modules;
2. In-depth study of critical thinking technique and improvement of skills to use it in practice;
3. Taking advanced training course on effective time-management;
4. Improvement of self-presentation skills.

### 3.1.6. "Best Teacher-2012" national competition

On October 5, 2012 the delegation of AEO "Nazarbayev Intellectual Schools" took part in the 1st national forum "Ball of best teachers of Kazakhstan", held in connection with the professional holiday - Teachers' Day. The main objective of this event was to raise the status of a teacher in the republic and promote the profession. Professionalism, talent, careful attitude towards pupils, as well as love and devotion of the profession were the main criteria in competition for the award of "Best teacher of 2012".

The list of winners of the national competition "Best Teacher — 2012" includes Sergey Koshkin, teacher of physics at Nazarbayev Intellectual school, Physics and Mathematics, of Kokshetau, Gulnara Apeeva, teacher of mathematics at Nazarbayev Intellectual school, Physics and Mathematics, in Astana, Julia Kamenskaya, English teacher at Nazarbayev Intellectual school, Physics and Mathematics, in Semey.


Participants of the ball and teachers of Kazakhstan received congratulations from Bakytzhan Zhumagulov, the Minister of Education and Science of the Republic of Kazakhstan, who handed over medals, memorable figurines and awards to 48 winners of the the "Best Teacher-2012" national competition. For the first time the awarding ceremony was held in the format of a noble ball.

## 3.2. Development of pupils

### 3.2.1. Competitive selection of pupils

The competitive selection of pupils to the Intellectual schools is carried out in line with the Government's decree №317 dated March 14, 2009 "On approval of the Rules of awarding and amount of the educational grant "Orken" of the First President of the Republic of Kazakhstan for gifted children at the Intellectual schools of the First president of the Republic of Kazakhstan (hereinafter - the Rules), order №167 of the Ministry of Education and Science of the Republic of Kazakhstan dated April 7, 2009, the Rules of admission to Grades 1-6 of the Nazarbayev Intellectual schools approved by the decision of the Board of Directors of the Joint-stock company "Nazarbayev Intellectual schools" dated June 10, 2010.

According to the rules of pupils' admission to Grades 2-6 and 7-10 of the Intellectual schools pupils are selected based on results of the competitive selection that shows whether the pupils are ready to study the advanced program in Physics and Mathematics.

The competitive selection to Grades 2-10 includes the following:

- complex examination of knowledge in core subjects;
- written test in specialized subjects;
- determining the level of language proficiency (Kazakh, Russian and English languages).

Competitive selection in regions was organized with assistance of oblast and city Departments of Education.

The total of five competitive selections of pupils for Nazarbayev Intellectual school were carried out in 2012 in the cities of Astana, Semey, Kokshetau, Ust-Kamenogorsk, Taldykorgan, Uralsk, Karaganda*, Pavlodar*, and Aktobe*:

1) from April 15 to April 22, 2012 (Grade 7)
2) from July 16 to July 24, 2012 (Grades 2-9)
3) from September 8 to September 16, 2012 (Grades 3,4,5,8)
4) from October 14 to October 22, 2012 (Grades 7-9)
5) from November 11 to November 19, 2012 (Grades 7-9).

*Note: *At Intellectual schools of Karaganda (558 people selected), Aktobe (736 people selected), Pavlodar (478 people selected) and Semey (3 people selected) competitive selections of*

*pupils were carried out, and the meeting of the Republican commission on "Orken" grant awarding is appointed to 27.12.2012*.

According to decisions of the Republican commission on "Orken" educational grant awarding of May 24 and on August 16, 2012 974 pupils of grades 7-10 were awarded a grant following the results of competitive selection of 2012. This number includes 91 pupils from reserve list. The reserve list includes 492 applicants who have scored minimum acceptable points.

136 pupils were enrolled in Intellectual schools according to the results of competitive selection for grades 1-6.

**Results of pupils' competitive selection**

| Name of Intellectual School | Number of enrolled pupils after competitive selection | | Total |
|---|---|---|---|
| | Grades 1-6 | Grades 7-9 | |
| Nazarbayev Intellectual School, Physics and Mathematics, Astana | - | 145 | 145 |
| Nazarbayev Intellectual School, Astana | - | 100 | 100 |
| Nazarbayev Intellectual School, Physics and Mathematics, Kokshetau | 48 | 159 | 207 |
| Nazarbayev Intellectual School, Physics and Mathematics, Semey | 14 | 221 | 235 |
| Nazarbayev Intellectual School, Chemistry and Biology, Ust-Kamenogorsk | 33 | 114 | 147 |
| Nazarbayev Intellectual School, Physics and Mathematics, Taldykorgan | 41 | 101 | 142 |
| Nazarbayev Intellectual School, Physics and Mathematics, Uralsk | - | 134 | 134 |
| **Total** | **136** | **974** | **1110** |

**Competition results of pupils of 6th grades at Intellectual schools**

| No. | Name of Intellectual school | Number of pupils | Applied for 7th grade | Awarded with a grant | Lower that the acceptable minimum |
|---|---|---|---|---|---|
| 1 | Nazarbayev Intellectual School, Physics and Mathematics, Taldykorgan | 64 | 64 | 52 | 3 |
| 2 | Nazarbayev Intellectual School, Chemistry and Biology, Ust-Kamenogorsk | 47 | 47 | 40 | 7 |
| 3 | Nazarbayev Intellectual School, Physics and | 56 | 56 | 53 | 3 |

| | | | | | |
|---|---|---|---|---|---|
| | Mathematics, Kokshetau | | | | |
| 4 | Nazarbayev Intellectual School, Physics and Mathematics, Semey | 58 | 57 | 48 | 4 |
| 5 | Nazarbayev Intellectual School, Physics and Mathematics, Astana | 79 | 77 | 53 | 1 |
| **TOTAL** | | **304** | **301** | **246** | **18** |

Results of competitive selection show that graduates of 6th grades of Nazarbayev Intellectual schools received good results in comparison with pupils of other general education schools. Out of all graduates of 6th classes of Intellectual schools 81.7% successfully passed the minimum acceptable level.

### 3.2.2. Development and Introduction of the competitive selection system of the 7th grade pupils of the Intellectual Schools

New improved subject programs elaborated together with CIE are aimed at the development of knowledge application skills in different real-life situations. This imposes serious requirements for Intellectual School entrants.

AEO together with the strategic partners Cito, Holland, and CTY, USA develops new competitive selection system. It is focused on admission of pupils able to study mathematical and natural sciences, and who will have high results within the whole training period in Intellectual School.

To work out tasks 35 teachers (the Kazakh, Russian, English languages and mathematics) of the Intellectual Schools completed training on test preparation focused not only on knowledge assessment but on ability to apply knowledge. Elaborated tasks received an Expert Judgment of the Cito specialists. At the end of the work the following seminars have been held:

1. On expertize training of the developed questions of Intellectual School pupil competitive selection with the participation of the Cito international consultant.
2. On discussion of test expertize results, their improvement, and competitive selection test making up.

Competitive selection test approbation among the 7th grade pupils of Intellectual and general education schools was carried out. For this purpose unique test variants were formed, test design and period were determined, pupils' number required for approbation was set. Summarizing the results of approbation test quality was determined, in October of this year a seminar with the developers was held and test bank to use in new competitive selection was approved.

To assess pupils' ability to study natural and mathematical sciences, work with CTY is being carried out. CPM workers had translated and adapted tests to assess spatial reasoning and ability to operate logically with quantitative characteristics, their approbation was carried out.

Following the results of approbation test quality was determined, and work on making final tests to use during the competitive selection is being carried out. Having improved test base according to the results of approbation the system will be recommended for use in 2013 during the competitive selection of the 7th grade pupils in the active Intellectual Schools.

The results of pupils' assessment will be also used for effective organization of the teaching process taking into account different levels of skills and when analyzing an individual progress of every pupil within several years. For this purpose learning courses for

the 7th grade teachers on use of psychometric assessment results of pupils' skills to organize differential training will be held in 2013.

It is planned together with CTY to carry out long-term research on impact assessment of spatial reasoning indicators on the progress of learning natural and mathematical and language subjects.

In April and June of this year there was held the 7th grade pupil competitive selection for the vacant positions in the 3rd, 4th, 8th and 9th grades of the Intellectual Schools of Astana, Kokshetau, Taldykorgan, Semey, and Ust-Kamenogorsk. For this purpose CPM carried out expertize of the examination materials in Kazakh and Russian on mathematics, Kazakh language (as native and second), Russian language (as native and second), English language, biology, chemistry and physics, test base was updated, questionnaire-book roll-out was conducted in compliance with the applicant contingent.

### 3.2.3. Enrolment

3982 pupils, among whom there were 2242 Kazakh-medium pupils and 1740 Russian-medium pupils, were enrolled in academic year 2011-12 in the Intellectual Schools of Astana, Kokshetau, Semey, Taldykorgan, Ust-Kamenogorsk.

**Number of pupils at Intellectual schools at the end of academic year of 2011-2012**

| Name of Intellectual school | Total, people | Studying in Kazakh | Studying in Russian |
|---|---|---|---|
| Nazarbayev Intellectual School, Physics and Mathematics, Semey | 684 | 382 | 302 |
| Nazarbayev Intellectual School, Physics and Mathematics, Kokshetau | 748 | 411 | 337 |
| Nazarbayev Intellectual School, Physics and Mathematics, Astana | 832 | 430 | 402 |
| Nazarbayev Intellectual School, Physics and Mathematics, Taldykorgan | 736 | 418 | 318 |
| Nazarbayev Intellectual School, Chemistry and Biology, Ust-Kamenogorsk | 750 | 483 | 267 |
| Nazarbayev Intellectual School, Astana | 232 | 118 | 114 |
| **Total** | **3982** | **2242** | **1740** |

In academic year 2012-13 as of December, 2012 enrollment rate in seven Intellectual Schools is 4578 pupils, among whom there were 2646 Kazakh-medium pupils and 1932 Russian-medium pupils.

**Number of pupils at Intellectual schools as of December, 2012**

| Name of Intellectual school | Total, people | Studying in Kazakh | Studying in Russian |
|---|---|---|---|
| Nazarbayev Intellectual School, Physics and Mathematics, Semey | 753 | 434 | 319 |
| Nazarbayev Intellectual School, | 751 | 443 | 308 |

| | | | |
|---|---|---|---|
| Physics and Mathematics, Kokshetau | | | |
| Nazarbayev Intellectual School, Physics and Mathematics, Astana | 889 | 462 | 427 |
| Nazarbayev Intellectual School, Physics and Mathematics, Taldykorgan | 707 | 389 | 318 |
| Nazarbayev Intellectual School, Chemistry and Biology, Ust-Kamenogorsk | 706 | 457 | 249 |
| Nazarbayev Intellectual School, Astana | 289 | 167 | 122 |
| Nazarbayev Intellectual School, Physics and Mathematics, Uralsk | 483 (incl. 120-boarding school) | 294 | 189 |
| **Total** | **4578** | **2646** | **1932** |

### 3.2.4. Virtual and Vacation Schools

To detect and select children able to study natural and mathematical sciences from educational organizations of the Republic of Kazakhstan in 2011 work on "Virtual School" and "Vacation School" project implementation is being carried out.

The purpose of the projects is creation of conditions to the 5th and 6th grade pupils from different educational organizations of the Republic of Kazakhstan to develop their skills to study natural and mathematical sciences and preparation to entering the Intellectual Schools for the "Orken" First President's Grant.

Using the web-site "Virtual School" applicants may register themselves for regional Intellectual School attendance, receive tasks and recommendations on their performing, receive educator's individual consultation.

Pupils who completed the tasks successfully are invited to the regional Intellectual School for on-site classes on the profile subjects and on-site consultations on the competitive selection subjects.

**Number of pupils of Virtual School**

| No. | Intellectual school | Number of pupils of Virtual School, people | | |
|---|---|---|---|---|
| | | Total | Studying in Kazakh | Studying in Russian |
| 1 | Astana, Physics and Mathematics | 694 | 396 | 298 |
| 2 | Astana, IB | 145 | 80 | 65 |
| 3 | Kokshetau | 659 | 344 | 315 |
| 4 | Ust-Kamenogorsk | 351 | 170 | 181 |
| 5 | Semey | 346 | 139 | 207 |
| 6 | Taldykorgan | 647 | 454 | 193 |
| 7 | Uralsk | 83 | 55 | 28 |
| | **Total** | **2925** | **1638** | **1287** |

Total number of Virtual School participants accounted for 2925 pupils of the secondary education organizations of the Republic of Kazakhstan in 2012.

**Number of pupils of Vacation School**

| No. | Intellectual school | Number of pupils of Virtual School, people | | |
|---|---|---|---|---|
| | | Total | Studying in Kazakh | Studying in Russian |
| 1 | Astana, Physics and Mathematics | 81 | 52 | 29 |
| 2 | Astana, IB | 5 | 2 | 3 |
| 3 | Kokshetau | 49 | 27 | 22 |
| 4 | Ust-Kamenogorsk | 56 | 29 | 27 |
| 5 | Semey | 4 | 4 | 0 |
| 6 | Taldykorgan | 5 | 4 | 1 |
| 7 | Uralsk | 13 | 6 | 7 |
| | **Total** | **213** | **124** | **89** |

Number of Vacation School participants accounted for 213 pupils of the secondary education organizations of the Republic of Kazakhstan.

**Work to be done in 2013**

1. To continue collaboration with oblast (city) Departments of Education within "Virtual School" and "Vacation School" project implementation;
2. To improve work of Virtual School site on the basis of the experience available.

### 3.2.5. Elective Courses

To achieve high quality of educational service rendering and Intellectual School performance efficiency special measures on child support were taken in 2012. One of them was organization of the elective courses in the country and abroad on physics, mathematics, chemistry, biology as well as the English language (language courses).

Pupils with the achievements in Olympiads, research project contests and showing positive dynamics in education had an opportunity of deep studying subjects in foreign and internal educational institutions at the elective courses.

When choosing elective courses a special attention was given to relevance and novelty rate for pupils, to motivating and developing potential. Program Content facilitated intellectual, creative, emotional development of the pupils, implied broad use of active learning methods and focus on modern educational technologies.

The elective courses were directed at solving the following tasks:

- To promote self-determination of a pupil and further vocational activity choosing;
- To create positive motivation for learning on a planned specialization;
- To familiarize pupils with leading activities for the specialization;
- To stir up pupils' cognitive activities;
- To increase pupils' informative and communicative competence.

**Elective courses**

| No. | Name of the course | Location | Number of pupils |
|---|---|---|---|
| 1 | Training course in physics and mathematics | Kolmogorov specialized scientific-educational center, Moscow, Russia | 20 |
| 2 | Summer school (CTY) | Kerlayl, USA | 12 |
| 3 | Nauryz Lectures | Astana, Kazakhstan | 50 |
| 4 | Summer school in NIS, Physics and Mathematics, in Taldykorgan with The Bell Educational Services Ltd. | Taldykorgan, Kazakhstan | 94 |
| 5 | Summer school in NIS, Physics and Mathematics, in Kokshetau with International House Belfast Ltd. | Kokshetau, Kazakhstan | 141 |
| 6 | Cosmonautics studies in SEI "International cosmic school named after V.N. Chalomei" | Baikonur | 48 |
| 7 | Physics and mathematics courses and preparation to IELTS independent examination | Kenington, Great Britain | 30 |
| 8 | "Scientific discoveries" training seminar of FIF Technologies LLP in physics, chemistry and biology | Singapore | 24 |
| 9 | Christmas Lectures at the Royal Institution of Great Britain (RI) | London, Great Britain | 14 |
| 10 | Elective courses in chemistry and biology in "Phytokhimiya" international scientific-production holding JSC | Karaganda, Kazakhstan | 30 |
| 11 | Training course in Kazakhstan scientific institute of agricultural products processing LLC | Astana, Kazakhstan | 30 |
| | **Total** | | **493** |

**Work to be done in 2013**

1. For further planning of elective course organization to conduct analysis of course learning efficiency and quality held in 2010-12;
2. Information gathering on courses in the Republic and abroad, search of partners successfully recommended themselves in this segment of the educational services;
3. Increase in a number of elective courses inside the country and abroad;
4. Summer Language Schooling on the base of the existing Intellectual Schools;
5. Holding trainings on instructing of teachers of the Intellectual Schools for work in the Summer Language School.

### 3.2.6. Pupils' Performance

**Work done in 2012**

For the reporting period reports on performance were collected, gathered statistical data were processed, performance result analysis at the end of the 1st, 2nd, 3rd, 4th terms of 2011-12 academic year and for the whole academic year was prepared.

Performance and knowledge quality results for the 1st semester of 2011-12 academic year are collected and being processed.

**Pupils' performance for 2011-12**

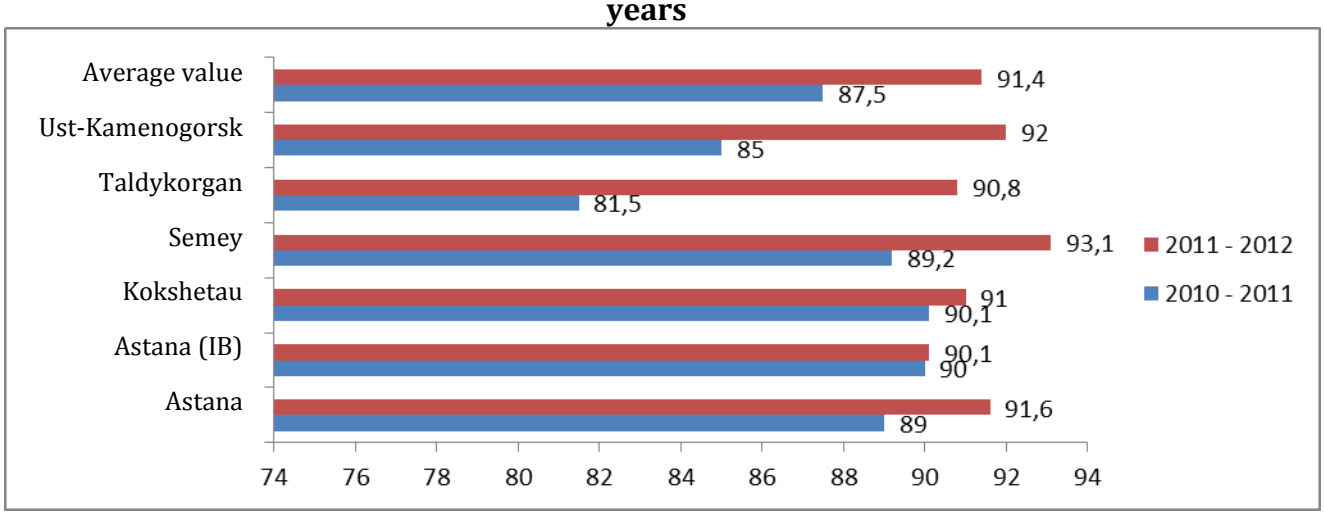
3981 pupils, among whom there were 2242 (56%) Kazakh-medium pupils and 1739 (44%) Russian-medium pupils, finished 2011-12 academic year in the Intellectual Schools of Astana, Kokshetau, Semey, Taldykorgan and Ust-Kamenogorsk.

**Table. Number of pupils of Intellectual schools as of the end of 2011-2012 academic year.**

| Intellectual school | Total number | Studying in Kazakh | Studying in Russian |
|---|---|---|---|
| Astana, Physics and Mathematics | 831 | 430 | 401 |
| Astana, IB | 232 | 118 | 114 |
| Kokshetau | 748 | 411 | 337 |
| Semey | 684 | 382 | 302 |
| Taldykorgan | 736 | 418 | 318 |
| Ust-Kamenogorsk | 750 | 483 | 267 |
| **Total:** | **3981** | **2242** | **1739** |

Following the results of 2011-2012 academic year the progress of pupils at all Intellectual schools made up 100%, and quality of knowledge – 91.4%.

**Chart. Comparison of quality of knowledge (%) following the results of 2010-2011 and 2011-2012 academic years**




Average value of knowledge quality in view of the Intellectual Schools at the end of 2011-12 academic year:

- Astana – 91.6%;
- Astana (IB) – 90.1%;
- Kokshetau – 91%;
- Semey – 93.1%;
- Taldykorgan – 90.8%;
- Ust-Kamenogorsk – 92%.

The highest knowledge quality is observed among primary pupils – 98.3%, secondary school knowledge quality is lower – 88.4%, senior school – 92.7%.

It should be noted that in 2011-12 academic year in all the Intellectual Schools criteria assessment system creation and introduction work was started, particularly in the 7th grade of the schools of physics and mathematics and the 8th grade of the schools of chemistry and biology and Astana Intellectual School.

Use of criteria assessment by teachers increased assessment objectivity, but reduced quality indicators in these classes at the beginning of the academic year. However, individual work with pupils held by the schools and application of criteria approach to assessment by educators led to increase in pupils' knowledge quality over the terms and at the end of the academic year.

**Table. Quality of knowledge of pupils of grade 7 according to the results of 2011-2012 academic year**

| School | 6th grade 2010-11 | Grade 7 2011-12 academic year | | | | |
|---|---|---|---|---|---|---|
| | | 1 term | 2 term | 3 term | 4 term | Year result |
| Physics and Mathematics, Astana | 91.4 | 49.0 | 58.3 | 71.9 | 80.2 | 82.3 |
| Kokshetau | 96.4 | 45.3 | 44.4 | 55.0 | 72.6 | 82.3 |
| Semey | 84.8 | 28.2 | 51.6 | 61.1 | 77.5 | 82.5 |
| Taldykorgan | 90.3 | 47.9 | 75.0 | 75.0 | 77.0 | 85.4 |
| Average value | **90.7** | **42.6** | **57.3** | **65.7** | **76.8** | **83.1** |

**Table. Quality of knowledge of pupils of grade 8 according to the results of 2011-2012 academic year**

| School | 6th grade 2010-11 | Grade 7 2011-12 academic year | | | | |
|---|---|---|---|---|---|---|
| | | 1 term | 2 term | 3 term | 4 term | Year result |
| Astana | 90.9 | 60.4 | 87.5 | 95.8 | 87.5 | 95.8 |
| Ust-Kamenogorsk | 76.2 | 76.1 | 78.3 | 78.4 | 85.2 | 89.8 |
| Average value | 83.6 | 68.3 | 82.9 | 87.1 | 86.4 | 92.8 |

Use of criteria assessment method of pupils' academic achievements led to more objective marks of pupils and thereafter affected positive knowledge quality indicators. As seen from the Tables 2 and 3, increase in knowledge quality of the 7th and 8th grade pupils during the academic year is observed in all the schools. If average value of knowledge quality at the end of 1st term in the 7th grades was 42.6%, this indicator increased by 40.5% and ran up 83.1% at the end of the year. Knowledge quality of the 8th grade pupils increased by 24.5% at the end of the year comparing with the 1st term and accounted for 92.8%.

3981 pupils successfully completed the academic year. Among them 1173 (28.2%) pupils got excellent marks, 2471 (63.1%) - good and excellent marks, 337 (8.6%) - satisfactory marks.

**Table. Pupils' marks according to the results of 2011-2012 academic year**

| Intellectual school | Number of pupils | Number of pupils, who have a mark according to the results of 2011-2012 academic year | | | | Share of pupils, who have a mark according to the results of 2011-2012 academic year | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 5 | 4 | 3 | 2 | 5 | 4 | 3 | 2 |
| **Astana, Physics and Mathematics** | 831 | 247 | 514 | 70 | 0 | 29.7 | 61.9 | 8.4 | 0.0 |
| **Astana, IB** | 232 | 46 | 163 | 23 | 0 | 19.8 | 70.3 | 9.9 | 0.0 |
| **Kokshetau** | 748 | 212 | 467 | 69 | 0 | 28.0 | 62.0 | 9.0 | 0.0 |
| **Semey** | 684 | 177 | 460 | 47 | 0 | 25.9 | 67.3 | 6.9 | 0.0 |
| **Taldykorgan** | 736 | 187 | 481 | 68 | 0 | 25.4 | 65.4 | 9.2 | 0.0 |
| **Ust-Kamenogorsk** | 750 | 304 | 386 | 60 | 0 | 40.5 | 51.5 | 8.0 | 0.0 |
| **Total:** | 3981 | 1173 | 2471 | 337 | 0 | 28.2 | 63.1 | 8.6 | 0.0 |

The biggest part of the pupils, who completed the academic year:

- with excellent marks in Ust-Kamenogorsk (40.5%).
- with excellent and good marks in the Intellectual School of Astana (70.3%), Semey (67.3%) and Taldykorgan (65.4%).
- with satisfactory marks in the Intellectual Schools of Astana –9.9% and Taldykorgan – 9.2%.

Knowledge quality of the 1st-6th grade learners (1689 pupils) was 94.1%.

Among them number of pupils who finished the year with:

- excellent marks - 562 (36.1%);
- excellent and good marks - 1028 (58.6%);
- satisfactory marks - 99 (5.3%).

**Table. Pupils' marks (grades 1-6) according to the results of 2011-2012 academic year**

| Intellectual school | Number of pupils | Number of pupils (grades 1-6), who have a mark according to the results of 2011-2012 academic year | | | | Share of pupils (grades 1-6), who have a mark according to the results of 2011-2012 academic year | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 5 | 4 | 3 | 2 | 5 | 4 | 3 | 2 |
| **Astana, Physics and Mathematics** | 454 | 165 | 257 | 32 | 0 | 36.3 | 56.6 | 7.0 | 0.0 |
| **Astana, IB** | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| **Kokshetau** | 266 | 110 | 144 | 12 | 0 | 41.4 | 54.1 | 4.5 | 0.0 |
| **Semey** | 453 | 63 | 353 | 37 | 0 | 13.9 | 77.9 | 8.2 | 0.0 |
| **Taldykorgan** | 288 | 101 | 175 | 12 | 0 | 35.1 | 60.8 | 4.2 | 0.0 |
| **Ust-Kamenogorsk** | 228 | 123 | 99 | 6 | 0 | 53.9 | 43.4 | 2.6 | 0.0 |
| **Total:** | **1689** | **562** | **1028** | **99** | **0** | **36.1** | **58.6** | **5.3** | **0.0** |

Knowledge quality of the 7th-11th grade learners (2292 pupils) was 89.6%.
Among them number of pupils who finished the year with:
- excellent marks - 611 (29.2%);
- excellent and good marks - 1443 (61%);
- satisfactory marks - 238 (9.8%)

**Table. Pupils' marks (grades 7-11) according to the results of 2011-2012 academic year**

| Intellectual school | Number of pupils | Number of pupils (grades 7-11), who have a mark according to the results of 2011-2012 academic year | | | | Share of pupils (grades 7-11), who have a mark according to the results of 2011-2012 academic year | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | 5 | 4 | 3 | 2 | 5 | 4 | 3 | 2 |
| **Astana, Physics and Mathematics** | 377 | 82 | 257 | 38 | 0 | 21.8 | 68.2 | 10.1 | 0.0 |
| **Astana, IB** | 232 | 46 | 163 | 23 | 0 | | | | |
| **Kokshetau** | 482 | 102 | 323 | 57 | 0 | 21.2 | 67.0 | 11.8 | 0.0 |
| **Semey** | 231 | 114 | 107 | 10 | 0 | 49.4 | 46.3 | 4.3 | 0.0 |
| **Taldykorgan** | 448 | 86 | 306 | 56 | 0 | 19.2 | 68.3 | 12.5 | 0.0 |
| **Ust-Kamenogorsk** | 522 | 181 | 287 | 54 | 0 | 34.7 | 55.0 | 10.3 | 0.0 |
| **Total:** | **2292** | **611** | **1443** | **238** | **0** | **29.2** | **61.0** | **9.8** | **0.0** |

Positive tendency of reduction of pupils' part with Grant and mark "3" was observed at the end of the academic year: if at the end of 2010-11 academic year this indicator was 19.1%, at the end of 2011-12 academic year it was reduced to 6.6%.

**Summarizing the results of the work there were prepared and published:**

1. **Performance and Knowledge Quality Analysis for the 2nd term of 2011-12.**
2. **Performance and Knowledge Quality Analysis for the 3rd term of 2011-12.**
3. **Performance and Knowledge Quality Analysis for the 4th term of 2011-12.**
4. **Performance and Knowledge Quality Analysis for the 2011-12 academic year.**

**Results of pupils' participation in Olympiads and research project contests**

At the end of 2011-2012 academic year 1072 or 26.9% of pupils of the Intellectual Schools became prize-winners of international (France, Russia, Switzerland), republican Olympiads, research projects and contests. The biggest number of the winners of international and republican contests is in the Intellectual School of Physics and Mathematics of Semey (278 pupils) and Kokshetau (174 pupils).

**Table. Number of winners of Olympiads and scientific project competitions**

| Intellectual school | International | National | Total |
|---|---|---|---|
| Astana, Physics and Mathematics | 168 | 46 | **214** |
| Astana, IB | 25 | 1 | **26** |
| Kokshetau | 174 | 31 | **205** |
| Semey | 278 | 33 | **311** |

| | | | |
|---|---|---|---|
| Taldykorgan | 117 | 42 | **159** |
| Ust-Kamenogorsk | 116 | 41 | **157** |
| **Total**: | **878** | **194** | **1072** |

These are such contests and Olympiads as: “FIDJIP-EUROTALENT CONCORDE” Research Project Contest; VIII International Math Subject Olympiad; All-Russian Contest "Infoznaika”; All-Russian Contest "Find Your Answer - 2012" (Найти свой ответ - 2012); IX International Chemistry Distance Olympiad “Erudite”; IX All-Russian Math Distance Olympiad "Erudite", etc.

**International Examination Results**

The graduates of the Intellectual Schools took part in the international examinations SAT-1, SAT-2, SET, IELTS, TOEFL, BCEPT.

At the international examination SAT-1 learners took mathematics, critical thinking and writing. For the successful admission to American institutes of higher education one should gain at least 500 scores on every subject under maximum score being 2400. 9 pupils from Astana and 8 pupils from Kokshetau took part in the examination, their results were 1724 and 1243 scores correspondingly.

3 pupils from Astana took SAT-2 – international examination on two profile subjects (mathematics and physics, mathematics and chemistry). Their result was 1286 scores of maximum 1600.

5 pupils from Astana took SAT-2 – international examination on three profile subjects (mathematics-1st level, mathematics-2nd level, physics and chemistry). They gained 2046 scores of maximum 2400, what was a sufficient level to enter institutes of higher education of America.

“SET” Examination in the Nazarbayev University is held on two of the following subjects: “mathematics”, “physics”, “chemistry”, “biology”, “critical thinking”. 38 pupils from Astana, 28 from Astana (IB), 46 from Kokshetau, 39 from Semey, 37 from Taldykorgan, 40 from Ust-Kamenogorsk took part in the examination, 101 of them passed the threshold level.

382 graduates of 6 Intellectual Schools took part in IELTS examination to determine academic English language knowledge level. Average score was 5.5 of maximum 9.0. It should be noted that average score of graduates from Astana was 6.5, what was a high result.

5 graduates of Astana took part in the examination of English language as foreign TOEFL. The result of pupils’ knowledge level assessment, whose native language was not English, was 430 scores of maximum 677.

98 pupils took part in the examination BCEPT to assess English knowledge level, developed by the British Council: 7 pupils from Astana (IB), 34 from Kokshetau, 16 from Semey, 14 from Taldykorgan, 27 from Ust-Kamenogorsk. 17 pupils passed threshold level.

**Table. International Examinations results**

| Examination | Number of participants | Maximum points | Result of Intellectual schools |
|---|---|---|---|
| SAT-1 | Astana-9 | 2400 | 1724 |
| | Kokshetau-8 | | 1243 |
| SAT-2 (2 subjects) | Astana-3 | 1600 | 1286 |
| SAT-2 (3 subjects) | Astana-5 | 2400 | 2046 |
| SET | Astana-38<br>Astana (IB)-28 | Pass/fail | Pass-101 pupils |

| | | | |
|---|---|---|---|
| | Kokshetau-46<br>Taldykorgan-37<br>Semey-39<br>Ust-Kamenogorsk-40 | | |
| IELTS | 382, of them<br>Astana-42 | 9,0 | 5,5<br>6,5 |
| TOEFL | Kokshetau-5 | 677<br>C1-560 | 430 |
| BCEPT | Astana (IB)-7<br>Kokshetau-34<br>Semey-16<br>Taldykorgan-14<br>Ust-Kamenogorsk-27 | Pass/fail | Pass-17 pupils |

**Following the results, Brochure was prepared:**

**1. Information on the results of international examinations of pupils of the Intellectual Schools in 2011-12 academic year.**

In April, 2012 the comparative test Cambridge ESOL of English language to assess compliance of language level with the Common European Framework of Reference for Languages (CEFR) was held. In 2012 the test was conducted in the 5th-11th grades of the Intellectual Schools. The results showed the following:

- Significant number of the pupils in every class gradually move from A1 in the 5th grade to B1 in the 11th (graduation) grade;
- About quarter of all the pupils (27.04%) has B2 in 11th transition and graduation classes;
- Significant percent of the pupils (from 3.61% to 8.17%) has C-level in 11th classes.

Comparison of the school results showed that the Intellectual School of Physics and Mathematics of Astana had higher results than other schools in terms of classes.

Based on the test results submitted by the Cambridge ESOL workers, report "Results of the English Language Comparative Test Cambridge ESOL in the 5th-11th Grades of the Intellectual Schools" was prepared for the Administration and teachers of the Intellectual Schools.

Summarizing the test results there was organized a seminar with the participation of the Cambridge ESOL specialists for the 5th-8th grade teachers (85 teachers) on peculiarities of English lesson organization to achieve language proficiency levels according to the Common European Framework of References for Languages (CEFR) and multilingual learning model of the integrated educational program.

**Work to be done in 2013**

1. In compliance with the Order of the Chairperson of the Management Board of AEO "Nazarbayev Intellectual Schools" No.494/ОД dated October 1, 2012 all graduates of the Intellectual Schools will take IELTS examination.
2. Opening of a branch of the Cambridge ESOL Examination Centre on the base of Center for Pedagogical Measurements to hold a standardized English language examination.

3. Approbation of the English language examination Cambridge ESOL in the 5th and 8th grades of the Intellectual Schools of Astana, Kokshetau, Taldykorgan, Semey, Ust-Kamenogorsk, in the 11th and 12th grades of the Intellectual School of Physics and Mathematics of Astana.

**Results of the Final Attestation of the Graduates of the Intellectual Schools**

**Work done in 2012**

Final Attestation of the graduates was held in accordance with the Rules for Current Performance Control, Intermediary and Final Attestation of the pupils of AEO "Nazarbayev Intellectual Schools", approved by the Decision of the Management Board of AEO "Nazarbayev Intellectual Schools" No.12 dated August 24, 2011.

List of the subjects of Final Attestation and Form of their conducting were approved by the Decision of the Board of Regents No.3 dated September 16, 2011 and confirmed by the Order of the Chairperson of the Management Board of AEO No.159 dated October 4, 2011.

98 teachers of the Intellectual Schools took part in the preparation of examination materials for the Final Attestation over the secondary school course.

To organize and hold the Final Attestation in a standardized way there were developed and approved by the Decision of the Management Board of AEO No.22 dated May 29, 2012:

- "Instruction on Organization and Conduct of Final Attestation of the pupils of the Autonomous Educational Organization "Nazarbayev Intellectual Schools";
- "Recommendations on assessment criteria, transfer scale of scores into marks in compliance with the structure of the examination materials for Final Attestation of secondary school graduates in 2011-12 academic year for the Examination Board members".

**Results of the Final Attestation of the Secondary school Graduates**

In 2011-12 academic year 493 pupils, among them there were 260 Kazakh-medium pupils and 233 Russian-medium pupils, finished the 9th grade of the Intellectual School.

**Table. Number of graduates of grade 9 in Intellectual schools in 2011-12 academic year**

| School | Total number | Studying in Kazakh | Studying in Russian |
|---|---|---|---|
| Astana, Physics and Mathematics | 92 | 48 | 44 |
| Astana, IB | 47 | 24 | 23 |
| Kokshetau | 88 | 43 | 45 |
| Semey | 71 | 31 | 40 |
| Taldykorgan | 88 | 42 | 46 |
| Ust-Kamenogorsk | 107 | 72 | 35 |
| **Total:** | 493 | 260 | 233 |

Final attestation was carried out in secondary school from May 30 to June 14.

**Table. Subjects of final attestation and their form**

| Subject | Physics and Mathematics schools | Chemistry and Biology schools and NIS Astana |
|---|---|---|

| | | |
|---|---|---|
| 1. Native language (language of teaching) | Dictation | Dictation |
| 2. Second language | Tasks to check language competencies | Tasks to check language competencies |
| 3. Mathematics | Examination | Examination |
| 5. Physics | Examination<br>Practical work | |
| 6. Chemistry | | Examination<br>Practical work |
| 7. Biology | | Test<br>Practical work |
| 8. English language | Tasks to check language competencies | Tasks to check language competencies |

The analysis of results showed that progress of pupils following the results of examinations made 100%, quality of knowledge - 83.6%.

**Table. Quality of knowledge of graduates of 9 classes following the results of examinations**

| School | Number of pupils | Number of 5-excellent and 4-good marks | Share of 5-excellent and 4-good marks, % |
|---|---|---|---|
| Physics and Mathematics, Astana | 92 | 87 | 94.6 |
| IB, Astana | 47 | 28 | 59.6 |
| Physics and Mathematics, Kokshetau | 88 | 87 | 98.9 |
| Physics and Mathematics, Semey | 71 | 56 | 78.9 |
| Physics and Mathematics, Taldykorgan | 88 | 79 | 89.8 |
| Chemistry and Biology, Ust-Kamenogorsk | 107 | 75 | 70.1 |
| **Total:** | 493 | 412 | 83.6 |

The result analysis in terms of the subjects showed that there was a differentiation of the results. The highest results were on chemistry, native and second languages. The biggest part of pupils was with the mark “5” on the subjects: chemistry, biology, second language, mathematics.

**Table. Final attestation results by subjects**

| Intellectual school | Number of pupils | Number of pupils with marks | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Total number | | | | | | Studying in Kazakh | | | Studying in Russian | | |
| | | 5 | % | 4 | % | 3 | % | 5 | 4 | 3 | 5 | 4 | 3 |
| Native language | **493** | **274** | **55.6** | **211** | **42.8** | **8** | **1.6** | **171** | **89** | **0** | **103** | **122** | **8** |
| Second language | **493** | **313** | **63.5** | **171** | **34.7** | **9** | **1.8** | **168** | **89** | **3** | **145** | **82** | **6** |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mathematics | **493** | **310** | **62.9** | **156** | **31.6** | **27** | **5.5** | **164** | **83** | **13** | **146** | **73** | **14** |
| English | **493** | **220** | **44.6** | **219** | **44.4** | **54** | **11.0** | **118** | **108** | **34** | **102** | **111** | **20** |
| Physics | **339** | **161** | **47.5** | **170** | **50.1** | **8** | **2.4** | **81** | **79** | **4** | **80** | **91** | **4** |
| Chemistry | **64** | **46** | **71.9** | **17** | **26.6** | **1** | **1.6** | **33** | **5** | **0** | **13** | **12** | **1** |
| Biology | **90** | **58** | **64.4** | **29** | **32.2** | **3** | **3.3** | **36** | **20** | **2** | **22** | **9** | **1** |

Among the graduates of the 9th grade of the Intellectual Schools 119 pupils claimed to have General Secondary Education Certificate with distinction. 118 graduates received General Secondary Education Certificates with distinction.

**Table. Number of candidates for General Secondary Education Certificate with distinction and the number of those who received such certificate**

| School | Number of candidates | Number of those who received the certificate |
|---|---|---|
| Physics and Mathematics, Astana | 25 | 25 |
| IB, Astana | 6 | 6 |
| Physics and Mathematics, Kokshetau | 25 | 25 |
| Physics and Mathematics, Semey | 14 | 13 |
| Physics and Mathematics, Taldykorgan | 8 | 8 |
| Chemistry and Biology, Ust-Kamenogorsk | 41 | 41 |
| **Total:** | 119 | 118 |

**Results of final evaluation of higher school graduates**

In 2011-2012 academic year 382 students graduated the Intellectual School, 203 students of them attended classes with Kazakh language of education and 179 – with Russian.

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**Table. Number of graduates of 11th grades in Intellectual Schools in 2011-2012, persons.**

| School | Total, persons. | Kazakh language of education, persons. | Russian language of education, persons |
|---|---|---|---|
| PMD Astana | 45 | 22 | 23 |
| IB Astana | 41 | 22 | 19 |
| PMD Kokshetau | 79 | 38 | 41 |
| PMD Semey | 71 | 38 | 33 |
| PMD Taldykorgan | 66 | 44 | 22 |
| CBD Ust-Kamenogorsk | 80 | 39 | 41 |
| **Total:** | 382 | 203 | 179 |

Final evaluation in 11th grade took place from 31 May to 8 June 2012.

Final evaluation of students of higher school took place on the following subjects.

**Table. Subjects of final evaluation and the format of their conduct**

| Subject | PMD Schools | CBD Schools and Intellectual School of Astana |
|---|---|---|
| 1. Native language (language of education) | Test | Test |
| 2.Second language | Test | Test |
| 3.History of Kazakhstan | Test | Test |
| 4.Mathematics | Examining paper | Examining paper |
| 5. Physical science | Examining paper<br>Practical work | |
| 6.Chemistry | | Examining paper<br>Practical work |
| 7.Biology | | Test<br>Practical work |
| 8.English language | International examination IELTS | International examination IELTS |

Analysis of the results showed that progress of students upon the results of examinations made 100%, knowledge quality – 98.9%.

**Table. Knowledge quality of graduates upon the results of examinations**

| School | Total students, persons. | Number of students got 5 and 4, persons. | Share of students got 5 and 4, % |
|---|---|---|---|
| PMD Astana | 45 | 45 | 100 |
| IB Astana | 41 | 39 | 95,1 |
| PMD Kokshetau | 79 | 79 | 100 |
| PMD Semey | 71 | 70 | 98,6 |
| PMD Taldykorgan | 66 | 66 | 100 |
| CBD Ust-Kamenogorsk | 80 | 80 | 100 |
| **Total:** | 382 | 377 | 98,9 |

3 students got marks ‘satisfactory’ on the following subjects:

1 student of Semey PMD – Native language;

1 student of Intellectual school of Astana IB – Native language, second language, biology;

1 student of Astana Intellectual School – biology.

Analysis of the results in terms of the subjects showed observance of small differentiation. The highest results were on mathematics, physics, chemistry, history of Kazakhstan and the second language. The highest share of students with mark ‘5’ is on the subjects: Native language, second language and history of Kazakhstan.

**Table. Results of final evaluation on the subjects**

| № | Subject | Total students | Number of students, who got marks: | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Total | | | | | | Kazakh language of education | | | Russian language of education | | |
| | | | 5 | % | 4 | % | 3 | % | 5 | 4 | 3 | 5 | 4 | 3 |
| **1** | Native language | **382** | 368 | 96,3 | 12 | 3.1 | 2 | 0,5 | 201 | 1 | 1 | 167 | 11 | 1 |
| **2** | Second language | **382** | 369 | 96,6 | 12 | 3.1 | 1 | 0,3 | 199 | 3 | 1 | 170 | 9 | 0 |
| **3** | History of Kazakhstan | **382** | 374 | 97,9 | 8 | 2.1 | 0 | 0,0 | 200 | 3 | 0 | 174 | 5 | 0 |
| **4** | Mathematics | **382** | 313 | 81,9 | 69 | 18.1 | 0 | 0,0 | 175 | 28 | 0 | 138 | 41 | 0 |
| **5** | Physics | **261** | 216 | 82,8 | 45 | 17.2 | 0 | 0,0 | 121 | 21 | 0 | 95 | 24 | 0 |
| **6** | Chemistry | **54** | 39 | 72,2 | 15 | 27.8 | 0 | 0,0 | 26 | 4 | 0 | 13 | 11 | 0 |
| **7** | Biology | **67** | 60 | 89,6 | 5 | 7.5 | 2 | 3,0 | 27 | 2 | 2 | 33 | 3 | 0 |

In line with Order 142 dated 04.04.2012 "On amendments and additions to the order of the Minister of Education and Science of the Republic of Kazakhstan dated 18 March 2008, No. 125 "On Approval of Standard Rules of Ongoing Control of Progress, Interim and Final Evaluation of Students" the graduates of the Autonomous Educational Organization "Nazarbayev Intellectual Schools" get UNT certificate issued based on the scale of conversion of final marks of the certificate on general secondary education on general education subjects into points of UNT certificates.

Upon the results of evaluation 58.6% or 224 students got the certificates with the maximum number of points – 125, 21.7% or 83 students got the certificates with 121 points. Information on schools is provided below (table. 19).

**Table. Number of graduates with the points for UNT certificate on five subjects**

| School | Total graduates | Number of points | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 125 | % | 121 | 120 | 117 | 116 | 115 | 113 | 112 | 111 | 108 | 107 | 105 | 103 | 96 | 88 |
| PMD Astana | 45 | 30 | ***66.7*** | 3 | 2 | | 1 | 1 | | 1 | 3 | 3 | | | 1 | | |
| IB Astana | 41 | 20 | ***48.8*** | 4 | 2 | 5 | 2 | | | | | 3 | 3 | | | 1 | 1 |
| PMD Koksheta u | 79 | 39 | ***49.4*** | 18 | | 7 | 5 | | 1 | 4 | 3 | 1 | 1 | | | | |
| PMD Semey | 71 | 39 | ***54.9*** | 23 | | 2 | 4 | | | 2 | | | | 1 | | | |
| PMD Taldykor gan | 66 | 49 | ***74.2*** | 15 | | 1 | 1 | | | | | | | | | | |
| CBD Ust-Kamenog orsk | 80 | 47 | ***58.8*** | 20 | | 4 | 6 | | | | 1 | | 2 | | | | |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL | **382** | **224** | ***58.6*** | **83** | **4** | **19** | **19** | **1** | **1** | **7** | **7** | **7** | **6** | **1** | **1** | **1** | **1** |

Form among the graduates of Intellectual Schools, 68 students got the certificates on secondary education with honours and denotation 'Altyn Belgi', 30 students got the certificate on secondary education with honours.

**Table. Number of applicants in Intellectual Schools, persons.**

| School | Certificate on secondary education with honours and denotation 'Altyn Belgi' | Certificate on secondary education with honours |
|---|---|---|
| PMD Astana | 12 | 10 |
| IB Astana | 3 | 2 |
| PMD Kokshetau | 21 | 7 |
| PMD Semey | 7 | 1 |
| PMD Taldykorgan | 9 | 6 |
| CBD Ust-Kamenogorsk | 16 | 4 |
| **Total:** | 68 | 30 |

Upon the results of work prepared and published:

1. Examinational works, assessment criteria, scale of points conversion into the evaluation for final attestation of graduates of the basic school in 2011 – 2012 academic year.
2. RECOMMENDATIONS on assessment criteria, scale of points conversion into the evaluation in line with the structure of examination materials for final evaluation of higher school graduates in 2011-12 academic year.
3. RECOMMENDATIONS on assessment criteria, scale of points conversion into the evaluation in line with the structure of examination materials for final evaluation of basic school graduates in 2011-12 academic year.

**Plans for 2013**

1. Organization of final examinations for students of the basic and secondary schools.

## SECTION 4. SYSTEM OF EVALUATION OF STUDENTS' EDUCATIONAL ACHIEVEMENTS

**Work implemented in 2012**

In 2012 the work was conducted in this direction jointly with:

1. Institute of Educational Measurements (Cito), Netherlands, to create the system of competitive selection of students in 7th grade of Intellectual Schools, and the monitoring system of Intellectual schools students' educational achievements.
2. Centre for Talented Youth at Johns Hopkins University (CTY) to create the system of competitive selection based on psychometric assessment of students' abilities to study natural and mathematical sciences.
3. International Examinational Council of the University of Cambridge Examinations (CIE) to create the systems of intraschool criterion estimation, the system of summative assessment (final evaluation), evaluation of the Intellectual Schools activity (accreditation).

## 4.1. Elaboration and introduction of the system of criterion assessment of the students' educational achievements

One of the most topical problems in the educational system has been and remains the problem of objective assessment of students' achievement. Development of a new curriculum required identification of new approaches to the evaluation of educational achievements of students to create and introduce objective and reliable system.

In the 2011-2012 academic year, an experiment on testing the system of criterion assessment in 7th grade of schools of physical and mathematical direction, and 8th grade of schools of chemical and biological direction.

In order to monitor the results of testing in January and April check works on mathematics, physics in the 7th grade of PMD schools, on mathematics, English language in Intellectual School of Astana, on chemistry and biology in 8th grades of Ust-Kamenogorsk school were held.

Following two monitoring processes 12 analytical conclusions were prepared and published on the results of students' educational achievements for the 1st semester on mathematics, physics, chemistry, biology and English.

During the year, work was continued on development of the model of school assessment, in May the workshop with the CIE was held on the role of formative assessment for students' education. The workshop was attended by 21 teachers.

Based on the results of 1 year of testing the results were summed up, the report was prepared, the advantages and reasons of arising difficulties were analyzed, the Concept and Rules of Assessment were amended.

Assessment criteria, description of levels of students' achievements in line with the goals and objectives of study of the subject and the expected education results given the introduction of new training programmes, developed jointly with the CIE required significant improvement.

Together with the CIE a workshop was held with the participation of CIE three consultants on school assessment, based on the benchmarking approach. Upon the workshop results the recommendations were proposed, which were taken into account when finalizing the model of assessment criteria on the results of the first year of testing.

From 1 September 2012 implementation of the system of benchmarking assessment was launched in 6 Intellectual Schools: in 3-11 grades of PMD Astana, 6-11 grades in Taldykorgan, in 7-11 grades in Kokshetau, Semey, Ust-Kamenogorsk, in all grades of the IB Intellectual School Astana.

As part of the improvement of intraschool assessment criteria the CIE developed a questionnaire and conducted a study on the views of students, parents, teachers and school administrators about the new assessment system. The results and recommendations of the CIE study will be presented in January 2013.

In 2012, brochures with the tasks on criteria assessment were developed and published:

1. Collection of tasks of final (stating) work for assessment of educational achievements of students (1st semester).
2. Collection of tasks of final (stating) work for assessment of educational achievements of students (2nd semester)
3. Collection of tasks of summative assessment of educational achievements of students for the 1st and the 2nd semester.

In June 2012, the I Congress of Teachers of Chemistry and Biology of Kazakhstan

"School Natural Science Education: Society, Science and Technology of XXI Century" was held in Ust-Kamenogorsk. The brochures for the event were prepared and published:

1. 'Nazarbayev Ziyatkerlik mektepterindegi kriterialdy bagalau zhuiesin saralaudyn pilottyk zhobasy'. A pilot project on testing of the system of assessment criteria in Nazarbayev Intellectual Schools.

2. Examination papers, assessment criteria, scale of conversion of points into the assessment of the final evaluation of basic school graduates in 2011-2012 academic year.

On the AEO web-site the column "Benchmarking Assessment" contains tasks for benchmarking assessment of educational achievements of students, elaborated by teachers of intellectual schools.

### 4.2. Elaboration of the monitoring system of individual progress of students

In order to ensure timely adjustment of the educational process monitoring studies are needed, which ensure assessment of the progress of individual students' achievements.

During three years the AEO has been monitoring various subjects and grades using benchmarking approaches in assessment. The monitoring results give evidence of the degree of mastering of selected topics of the curriculum. According to the monitoring results, a map of individual achievements of each student and schedule of individual consultations to address the gaps in the curriculum were prepared. Based on the results of the grade, the teachers make adjustments in organization of the educational process of students.

In 2012-2013 academic year according to the monitoring results the following was prepared:

- Analytical conclusions on the results of the start monitoring of educational achievements of students in the 6th grade in mathematics, Kazakh, Russian and English languages.
- Analytical conclusions on the results of the start monitoring of educational achievements of students in the 8th grade in physics, biology and mathematics.
- Analytical conclusions on the results of the start monitoring of educational achievements of students in 7th, 8th, 9th grades in mathematics, physics, English in the established Intellectual School of Uralsk.

Cito jointly with the strategic partner develops a system for monitoring of students' achievements in mathematics in 7th and 11th grades, where the study is carried out on the curricula, developed jointly with the University of Cambridge.

The monitoring will be conducted three times a year. Based on the statistical data of the monitoring results, the scale of abilities of students in study of specific topics and the subjects of the curriculum will be lined up. The individual result of each student will be marked on the scale, which will allow for assessing the availability of progress, problematic subjects in mastering of the academic content and, therefore, timely introduction of adjustments in the education process.

23 teachers of mathematics of Intellectual Schools passed training on elaboration of tests for monitoring. They have developed tests, which received an expert opinion of the Cito specialists.

The workshops were held on the following subjects:

1. On elaboration and introduction of the monitoring system of educational achievements of students in mathematics in the 7th, 11th grades, participated by the international Cito consultants.

2. On discussion of the results of the examination of tests for monitoring of students' educational achievements in mathematics in the 7th and 11th grades, and their completion in line with the objectives of evaluation.

Testing of the system was carried out in September 2012. According to the results of testing the tasks were finalized, the assessment scale was elaborated. In January testing of the tasks for the second monitoring will take place. This system, modified based on the results of testing, will be used in 2013-2014 academic year. 23 teachers of Intellectual Schools are involved in elaboration of the system.

## 4.3. Joint activity with the International Examinational Board of the University of Cambridge (CIE), Great Britain

### 4.4.1. Elaboration of the system of final evaluation of Intellectual schools Graduates

In accordance with the Law "On the Status of Nazarbayev University, Nazarbayev Intellectual Schools and Nazarbayev Fund" graduates of Intellectual Schools are exempt from UNT and training and transition to an external independent assessment of students' achievement takes place. In 2012-13 academic year the final evaluation of graduates will be held by the AEO in conjunction with the Intellectual Schools.

Jointly with the CIE the model of assessment of Intellectual Schools students' after 5th, 10th, 11th and 12th grades was developed. The model includes the objectives and principles of assessment, approaches to elaboration of materials of summative final assessment in line with the educational programme and the expected results of educational programmes on subjects, issues of administration and checking of summative assessment works.

In May 2012, a workshop on the principles of development of test specifications in geography for summative assessment in 12th grade was held in 2014.

Based on the models of assessment and curriculum, as well as approaches determined at the workshop the work was organized by the CIE on elaboration of test specifications for the following subjects:

- Native language (Kazakh and Russian) and the second language (Kazakh and Russian) for external assessment in 11th grade;
- Mathematics, physics, chemistry, biology, geography, economics, computer science, Kazakhstan in the modern world, literature for external assessment in 12th grade.

CPS employees held an examination for compliance of test specifications with the developed integrated educational programme.

Based on the test specifications the activity on development of test materials will be organized in 2013 for its subsequent use in 2014.

In the course of work with the CIE a list of subjects (mathematics, physics, chemistry and biology), the format of control tests (number and types of tasks), dates (April 2013) for the first external independent evaluation of students of 12th grade of Intellectual Schools in 2013 were determined. For this purpose the CIE developed examination materials in English, which were examined and translated into the languages of education (Kazakh and Russian). All examination materials are multicomponent works, including verification of theoretical knowledge and ability to apply them in different situations, practical skills, ability to work with information, critical thinking. Currently, the materials are in the CIE for secure printing and distribution among schools.

The workshop on transfer of assessment skills of school graduates for teachers of Intellectual Schools with participation of 3 CIE consultants was held, which resulted in elaboration of a document on transfer of skills for assessment, describing the processes of development of tasks before scoring.

### 4.4.2. External assessment of Intellectual Schools activity (authorization, accreditation) and work on acknowledgement of curriculum and assessment

For the purpose of the external assessment of their activities, the secondary education organizations in the countries around the world pass the following external assessment procedures:

1. Authorization of the educational programme in accordance with the requirements of the International Baccalaureate Organization to obtain the status of "School of International Baccalaureate"
2. Accreditation of the school activity to meet the requirements of the international standards, confirming high quality of educational services to obtain the status of "School of International Baccalaureate"

The AEO is preparing to **authorize** the educational programme of the Intellectual School of Astana and **accreditation** of activities of 19 intellectual schools.

The Intellectual School of Astana IB conducted the preparatory work on authorization of the educational programme to the International Baccalaureate Organization:

- Educational programs on subjects (27 programs) were elaborated;
- Regulatory documents (5 policies – Language Policy, Evaluation Policy, Disciplinary Policy, Academic Honesty Policy, Policy meeting the special educational needs of students) were elaborated;
- Improvement of professional level of school administrators, teachers, librarians at the workshops of the International Baccalaureate Organization (128 people) was carried out;
- Classrooms and laboratories were supplemented with the necessary resources and equipment,;
- The library stock was supplemented by educational literature, fiction in languages of education, scientific literature for researches (10 749 copies);
- Application for the status of "School-Candidate" was submitted (September 2011);
- The status of "School-Candidate" was obtained (October 2011);
- The application for authorization was registered (October 2012);

To prepare for the accreditation of Intellectual Schools the workshop with CIEB experts, deputy directors of Intellectual Schools, AEO leadership on external assessment of Intellectual Schools activity was held. During the workshop the basic principles and approaches to accreditation were provided, the standards were coordinated, the list of required documents (policies) was discussed to complete the process of self-assessment and assessment of the activities.

Besides, in 2012, a workshop was held with the participation of 2 CIE consultants on the international recognition of the curriculum and assessment of the curriculum used in Intellectual Schools. During the workshop the main approaches to organization of work for the recognition were provided. Upon the results of the workshop, the action plan for obtaining of recognition in the Institutions of Higher Education of the Republic of Kazakhstan was presented.

**Plans for 2013**

1. Organization and competitive selection of students in 7th grades of Intellectual Schools using test tasks on the subjects developed together with the Cito, and test tasks for

identification of abilities to study natural mathematic sciences, developed jointly with the CTY.

2. Conduct of training courses for teachers of the 7th grades on the use of results of psychometric evaluation of the students' abilities in order to organize differentiated education.

3. Conduct of a long-term research with the CTY on assessment of the impact of spatial thinking indicators on the progress in the study of natural-mathematic sciences and languages.

4. Development of intraschool benchmarking assessment for the 7th, 8th, 11th and 12th grades jointly with CIEB.

5. Introduction of the monitoring system of educational achievements in mathematics in 7th and 11th grades from September 2013, development of test tasks in mathematics for 8th and 12th grades jointly with the Cito.

6. Development of test tasks for the monitoring of educational achievements in Kazakh and Russian languages as a second language for 7th and 11th grades jointly with the Cito.

7. Conduct of an independent assessment of educational achievements of students of 12th grade of Intellectual Schools of Astana, Kokshetau Taldykorgan, Semey and Ust-Kamenogorsk in mathematics, physics, chemistry and biology jointly with CIEB.

8. Elaboration of examination materials on 13 subjects for 11th and 12th grades for use in 2014 jointly with CIEB.

9. Testing of procedure for self-evaluation of the Intellectual Schools activity to obtain recommendations to pass accreditation.

10. Authorization of the high school educational program (DP) of Intellectual School of Astana.

11. Organization of work on obtaining of recognition of the curriculum and evaluation of Intellectual Schools in the Republic of Kazakhstan and abroad.

## SECTION 5. TRANSFER OF GAINED EXPERIENCE

In 2012 the following main forms of AEO experience transfer were realized:

- On-line classes and Web-materials on the subjects on the web-site;
- On-line workshops;
- Master-classes and workshops;
- International conferences;
- Organization of sections at conferences, congress;
- Centres of pedagogical skills;
- Network of pedagogical communities.

### On-line classes

AEO "Nazarbayev Intellectual Schools" from September 2011 has been implementing a pilot project on introduction of online-classes for general education schools of Kazakhstan. The goal of the project is to share the gained experience of Intellectual Schools in mathematics, physics, chemistry, biology, computer science and English language with the students of secondary schools of Kazakhstan. The main objective of online-classes is to improve knowledge of schoolchildren in school subjects.

The content is aimed to expand knowledge and skills of students. For example:

***mathematics*** –study of basic economic concepts, linking economics of business with mathematical calculations, study of the simplest economic and mathematical techniques aimed at application of life experience of the students, development of constructive thinking, familiarizing students to solving Olympiad tasks, development of the ability to solve tasks in

geometry of different types and high level of complexity in the plane, study of techniques and methods of solving tasks with the parameter, development of research and learning activities, improvement of mathematical culture of students within the school course of mathematics;

***physics*** – master knowledge of fundamental physical laws and principles underlying the modern physical picture of the world, the most important discoveries in physics, which had a decisive influence on development of engineering and technology; methods of scientific perception of nature, learning to observe, plan and execute experiments, to hypothesize and build models; to apply knowledge in physics to explain a variety of physical phenomena and properties of matters; practical use of physical knowledge; to assess the accuracy of natural science information, development of cognitive interests, intellectual and creative abilities in the process of acquiring knowledge and skills in physics using different sources of information and modern information technologies;

***computer science*** – practical application of editor ADOBE PHOTOSHOP, which is currently one of the most powerful means of computer processing of pictures, using the opportunities of 3D MAX program;

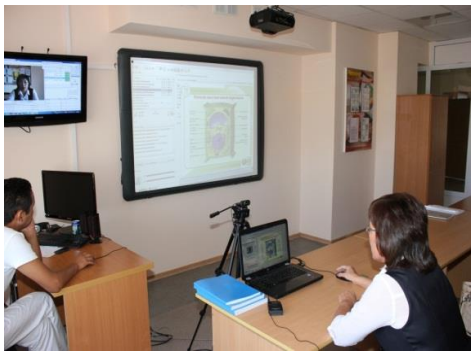
***chemistry*** – to conduct researches, prepare students for scientific and practical researches, contests and competitions at various levels, preparation for international examinations, expand theoretical knowledge of students by means of study of theoretical issues, which are not included in the secondary school curriculum; confirmation of single material world outlook through solving computational tasks, application of obtained knowledge in daily life, in unfamiliar situations;

***biology*** – familiarization of students with a wide range of issues studied in the modern human and animal physiology at the advanced level, formation of students' information, research competencies (comparison, analysis, ability to draw conclusions, critical thinking), providing an opportunity to the students to meet the individual interest in biology in the process of cognition and creative activity in solving biological tasks;

***English language*** – development of communicative skills in four main types of speech activity (speaking, listening, reading, writing), **familiarizing of students with the culture, traditions and realities of the studied language, formation of skills to represent their country, culture in a foreign language intercultural communication,** development of skills of critical thinking, training of tolerant and critical thinking personality, upbringing of culture of communication.

Enough attention is paid to the regional component in the programs. This allows for creating the conditions for practical application of English language by the students in situations ultimately close to reality. The anticipated topics on the regional component are aimed at increasing students' outlook, ability to tell the history of their country, and facts related to it, upbringing of Kazakhstan patriotism, respect for the customs and traditions of all peoples living in Kazakhstan.

All classes are held with the conduct of all possible experiments, mini-researches. Equipment for the rooms of chemistry, biology, physics is widely used at the classes. Tests and experiments are carried out in the real time mode and, in case if this is impossible, they are preliminarily filmed.



The online-classes are conducted via portal of the Ministry of Education and Science of the Republic of Kazakhstan ELP (elp.kz) based on software Eluminate Live. Online-classes are broadcast in real time mode on the web-site (1.sabak.kz). For those who could not be present in the classroom, there is a possibility on the portal ELP (elp.kz) to watch the class at any time.

All secondary schools with access to educational portal ELP participate in online-classes.

In 2011-2012 academic year, the classes were held in biology, mathematics, chemistry and physics.

In the first half of 2012 under commission of the AEO School Board a case study was carried out by region for the apprehension of measures implemented to introduce the broadcast experience (selected by schools).

Based on the findings of the case study for 2012-2013 academic year two more subjects were included: computer science and English.

The decision of the AEO Board dated 16 August 2012 approved training programs for interactive online-classes for students of secondary schools of the Republic of Kazakhstan for 2012 - 2013 academic year in mathematics, physics, chemistry, biology, computer science and English.

Materials of all lessons (presentations, video experiments, control tasks, etc.) are presented on the portal at http://moodle.nis.edu.kz. The course participants, teachers and students perform tasks posted on the portal and send to the teacher who conducted the lesson.

94 top teachers of Intellectual schools are involved in conduct of online-classes. During the classes teachers use all modern methods and technologies, and develop critical thinking of students.

According to the results of semesters brochures and CDs with materials of online-classes are produced. For those who had no opportunity to watch online-classes in real-time mode got 1350 CDs with materials of the classes in all regions of the country.

**Plans for 2013-2014 academic year**

1. To hold monitoring of the software existing in the world for online-videoconferences. The selection criterion is simplicity and free connection for the end-user (student, teacher, parents), possibility of access from mobile devices (board, Smartphone).
2. To organize regular monitoring of activity level of visiting online-classes.
3. To organize a server providing access to archives of all recorded and conducted online-classes.
4. To hold work on modernizing the portal of online-classes and workshops Moodle.
5. To hold work on inclusion of lessons to the school schedule.
6. To enable work of the forum for organizing feedback.

**Online workshops**

The workshops are conducted by teachers of Intellectual Schools once per week on mathematics, physics, chemistry, biology, Kazakh, Russian, English languages, geography, and Kazakhstan in the modern world. "Rules of online workshops for teachers of secondary schools in the Republic of Kazakhstan" and "Curriculum for online workshops for teachers of secondary schools in the Republic of Kazakhstan" were developed and approved by the AEO Board decision (No. 38 dated 31 August 2012).

In 2012, 48 online workshops were conducted.

In February, a survey was conducted among the teachers of secondary schools in the Republic of Kazakhstan in order to study the reasons of low attendance of online workshops and opportunities to improve the situation. The AEO staff met with teachers and administration of both oblast and district secondary schools. At the meetings the representatives reported on the AEO activities and conducted a questionnaire survey. The report on the questionnaire was submitted to the Ministry of Education and Science of the Republic of Kazakhstan and took to notice in organization of online workshops in 2012-2013 academic year. Collections of materials of online workshops, and CDs with materials which were distributed to the regions were compiled.

All materials of lessons and workshops (video segment, experiments, presentations) were posted on web-site at http://moodle.nis.edu.kz/, where school teachers send their suggestions and questions.

**Plans for 2013**

1. To conduct 48 online workshops on the system of benchmarking assessment.

**International Conferences**

In order to unite the leaders in the field of education from different parts of the world on one dialogue platform the AEO "Nazarbayev Intellectual Schools" from 2011 started to conduct a series of international conferences under the heading "Traditions and Changes"

In 2012, the following international scientific conferences were held:

**June 14-15, 2012** "The Content of Secondary Education: Traditions and Changes";

**November 15-16, 2012** "Leadership and Management in School in 2012";

**December 4-5, 2012** "Professional Development of Teacher: Traditions and Changes".

**In June 2012, a conference on *"The Content of Secondary Education: Traditions and Changes"*, in November 2012 *"Leadership and Management in school – 2012"*. The conferences issues correspond to the most topical trends taking place in the world in the field of education.**

**More than 750 people took part in the latest two events, including recognized international experts, professionals and scientists.**

The constructive discussion within the International scientific and practical conference *"Content of Education: Traditions and Changes"* was attended by 450 participants, including representatives of Institutions of Higher Education and Institutions of Secondary Education of the Republic of Kazakhstan and foreign countries.

The work was held on the following directions (sections):

1) Trends in the field of secondary education;
2) Modern approaches in elaboration of educational program;
3) Peculiarities of the Educational program of the International Baccalaureate;
4) Trends of the program in the sphere of secondary education content;
5) International experience of poly-lingual education;
6) Implementation of asset approach through academic subjects;

7) Academic achievements of students;
8) New approaches in assessment;
9) Formation of functional literacy of students.

Speakers of the sectional sessions of the conference were **Director of Education Development of the International Examination Board of the University of Cambridge *Tristan Stobie***, PhD Director of the School of Viikki, Helsinki, Finland Jyrki Loyma, PhD Project Manager of Poly-lingualism of Secondary Schools Federation, Spain Itziyar Elorz, **Professor of Education at California State University, *Alan Crawford***, PhD Consultant for the development and management of bilingual education, UK *Peter Mehisto*, Director of the Department of Secondary Education, Ministry of Education and Science of Estonia *Irene Keosaar*, Head of developers of thesis programs and vocational-oriented certification programs of the International Baccalaureate, headquartered in The Hague, Netherlands, Chris Mannix, Drs. Executive Director of the Institute of Educational Measurements (Cito), Netherlands, *Jan Wiegers*, Director of the Department of International Projects of the Centre for Talented Youth at Johns Hopkins University, USA *Simeon Brodsky*, etc.

During the two-day of work the conference participants had an opportunity to discuss the topical issues of school education in the Republic of Kazakhstan and in the world educational space, trends of curriculum development; possible ways to improve the quality of educational services. The conference participants emphasized the importance of education in the formation of students' moral and legal culture, patriotism and citizenship based on targeted development of functional literacy through enhancing the activity approach to the organization of the educational process, which integral components are education and training.

Participants of the conference made recommendations on:

- Necessity of system update of all components of education in school and provision of qualitative educational services in tuition of children from 6 to 18 years old;
- Revision of the composition and structure of the educational content of primary, secondary and high schools based on determination of values and elaboration of goals of education in the form of the expected results of education;
- Application of the best traditions of the Kazakhstan school and the world educational practice in elaboration of educational programs and curriculum on the subjects at all levels of education with an orientation at development of functional literacy of students;
- Creation and introduction of the system of assessment of academic achievements of students based on the set criteria for assessment not only of domain knowledge, but also the wide spectrum skills;
- Assistance to strengthening of asset significance of study as the leading activity of students based on organization of project-research work, independent and team work of students;
- Creation and introduction of the model of trilingual education, providing not only the levelled system of language teaching, but also gradual withdrawal of students in the language environment by study of academic subjects at the second and the third languages;
- Building of the value capacity of the educational school system aimed at forming of moral and legal culture, patriotism and civic consciousness of students;
- Strengthening of educational direction of academic subjects by using their potential for development of functional literacy and successful socialization of students;
- Determination of approaches to elaboration of fundamental new type of textbooks and educational and methodological literature, covering integration of subjects, use of online resources for development of students' activity;

- Initiation of research activity of teachers in the conditions of system update of school education, as the leading factor of professional development and creative growth.

In the international scientific and practical conference *"Leadership and management in school – 2012"* more than 300 contributors took part.

Directions of the conference:

1) Distributed leadership;
2) Professional educational communities;
3) Effective intraschool leadership;
4) Leadership and innovations in education;
5) Data for assessment of efficiency of leadership and management;
6) Effect-oriented strategic planning and management;
7) Leadership in trilingual education;
8) Leadership in programs of International Baccalaureate;
9) Topical researches at school;
10) Teachers and leaders;
11) Creation of new teams and their management.

Key interested parties in education took part in discussions of plenary and sectional meetings of the conference: officials of local and republican levels, directors and administration of schools, teachers, domestic and international experts in the area of leadership and management in education.

Opinion leaders shared their vision of trends and reforms: top managers, legislators in the sphere of education, experts, researches from Kazakhstan, Great Britain, USA, Netherlands, Belgium, Estonia, Finland, Japan, India, Philippines, etc. The educational forum became a source of useful information, creative ideas, valuable experience and capacious relations.

Participants of the conference recommended take the following steps for development of leadership and management in education, especially in secondary schools of the country:

- To support establishment of **voluntary associations of principals** at regional and republican levels, who will act as independent communities for professional dialogue, exchange of ideas and best practices;
- To create a ***trilingual electronic bulletin (in Kazakh, Russian and English) on leadership in school*** to facilitate discussion of educational issues, and dissemination of effective practices in school leadership;
- To support the establishment and operation of ***voluntary associations of subject teachers*** as an opportunity for development of leadership for teachers;
- To facilitate ***communication among the present and future Kazakh leaders in education and international organizations and forums on leadership at the school***;
- To practice projects ***"Research of Practice in Action" and "Research of Lesson" as a strategy to improve teaching and learning in Intellectual and secondary schools*** of the country;
- To consider inclusion of ***courses*** on leadership and management in the ***programs of pedagogical Institutions of Higher Education***;
- To consider the possibility of inclusion of courses on leadership and management in national advanced training programs;
- To hold ***annual conferences*** on leadership and management in order to improve quality of education and exchange of ideas and results of researches.

**On 4-5 December 2012** the International Examination Board of Cambridge jointly with the Faculty of Education of the University of Cambridge held the II International

Scientific and Practical Conference “Professional Development of a Teacher: Traditions and Changes”.

At the conference the results of the first year of implementation of the Kazakh-British project on advanced training of teachers of Kazakhstan, as well as determination of prospects for further activity in the conditions of strategic partnership with the University of Cambridge were discussed.

The Conference was attended by representatives of the state education authorities of the Republic of Kazakhstan, pedagogical community of organizations of secondary and higher education, systems of advanced training of teachers of Kazakhstan and foreign countries: Australia, Great Britain, Israel, Canada, New Zealand, Russia, USA, Finland, South Africa and Japan.

Within the conference the exhibition “Professional Development of a Teacher: Territory of Partnership” was held. The materials of the leading Kazakhstan State Pedagogical Institutes, the University of Cambridge, Nazarbayev Intellectual Schools and other Kazakhstan and international organizations that provide training and further training of teachers were provided at the exhibition.

The Conference included:

- exchange of research and practical experience in the area of professional development of teachers;
- joint search for solutions of topical issues of modern system of further training of teachers;
- determination of priorities and elaboration of recommendations for optimization of functioning of the system for further training of teachers and improvement of the quality of its content.

The first publication of information and methodological journal of the Centre of Pedagogical Skills “Pedagogical Dialogue” was presented. The main purpose is share the best educational experience of Nazarbayev Intellectual Schools and leading Kazakhstan and foreign educational organizations.

Collection of reports of participants in four volumes was issued on the results of the conference.

**Centre of Pedagogical Skills**

In line with the instruction of the Head of State on transfer of experience of Nazarbayev Intellectual Schools, which was voiced at the enlarged meeting of the Government of the Republic of Kazakhstan on 18 April 2011, the Government of the Republic of Kazakhstan approved conceptual approaches on distribution of AEO experience, development of a system of training and advanced training of teachers, creation of Centres of Pedagogical Skills (hereinafter referred to as CPS).

The project provides for the organization of advanced training of school teachers on a specially developed tiered training program, **complying with the best international practices**.

In accordance with the decision of the AEO Board dated 13 July 2012 (Minutes No. 29) the branches of CPS were established in the regional centres of Almaty.

On 23 August 2012, the Agreement between the International Examination Board of Cambridge and the Centre of Pedagogical Skills on provision of certain educational services was signed.

On 9 November 2012, the Resolution of the Government of the Republic of Kazakhstan, providing additional payment from 1 September 2012 to teaches for the qualification level, who undergone additional training on AEO curriculum and were certified on the program of the appropriate level:

the first (advanced) level – 100% of salary;
the second (main) level – 70% of salary;
third (base) level – 30% of salary.

According to the decision of the AEO Board dated 14 December 2012 (Minutes No. 59) the structure of the Centre was approved, which consists of 8 divisions and 16 branches, and its composition, according to which the number of employees of the Centre makes 163 people, including 52 – employees of the Centre and – employees of branches.

On 21 December 2012, the Agreement between the International Examination Board of Cambridge and the Centre of Pedagogical Skills on provision of certain educational services was signed.

**Development and implementation of level programs of advanced training courses of teachers**

The level programs of advanced training courses of teachers of the Republic of Kazakhstan of the third (base), second (main) and the first (advanced) levels (hereinafter referred to as the Program of III level, Program of II level, Program of I level) were elaborated jointly with the Faculty of Education of the University of Cambridge.

The academic-methodological complex (AMC) to the program of each level includes the following materials:

- manual for teachers;
- manual of trainer;
- tasks for implementation during practical activity in school;
- pre-course tasks;
- handout (weekly).

Following the results of testing of the level programs at the courses for trainers and advanced training of teachers, their adjustment and updating were held. Upon their results the Program of III level and the academic-methodological complex to it were reissued three times, the Program of II level and AMC – twice, the Program of I level and AMC – once.

Content of the Program is based on integrated consideration of the following issues:

a

At the third (base) level, training of teachers to manage the education process in the class (416 hours) is implemented.

At the second (main) level, preparation of teachers to the process of training of own colleagues by coaching and mentoring (440 hours) is carried out.

At the first (advanced) level, training of teachers to the process of organization and management of the professional community of teachers, coaching and mentoring of other teachers within the school and a network of schools (464 hours) is carried out.

**Advanced training of teachers**

In line with the level programs of advanced training of teachers of the Republic of Kazakhstan elaborated by the Centre of Pedagogic Skills jointly with the Faculty of education of the University of Cambridge, they passed:

**Courses of studies for trainers:**

- from 23 January to 17 March 2012 on the Program of III level – 286 trainers;
- from 13 August to 29 September 2012 on the Program of II level – 165 trainers;
- from 22 October to 8 December 2012 on the Program of I level – 133 trainers.

Total in the Republic, 584 trainers on three levels were instructed.



**Courses of advanced training for teachers:**

- from 4 April to 23 June 2012, based on the Centre and its branches the Kazakhstan trainers passed study on the Program of III level in the Centre jointly with the experts of the University of Cambridge, 1003 teachers of secondary schools of the Republic passed training, including 997 people passed qualification examination, 937 people (94%) were certified;
- from 30 July to 29 October 2012, the Courses of advanced training on the Program of III level were organized for 34 teachers of the Nazarbayev Intellectual School of Physics and Mathematics Direction in Uralsk;
- from 3 September to 24 November 2012, based on the Intellectual School in Uralsk, 50 teachers of secondary schools of the Republic passed advanced training on the Program of III level added by the methods of teaching the subjects (physics, chemistry, biology) participated by the staff members of Company PASCO (USA);
- From 4 December 2012 to 22 February 2013, the Courses of advanced training on the Program of III level are held for 152 teachers of secondary schools of the Republic, who passed competitive selection to the Intellectual Schools opening in Aktobe, Karaganda, Kyzylorda, Pavlodar, Shymkent.

For the purpose of operative decision within the courses of the issues of normative, financial and informative nature and timely amendment, the CPS held a monitoring on organization and content of the courses:

- Teaching of trainers on the Program of III level;
- Teaching of trainers on the Program of II level;
- Teaching of trainers on the Program of I level;
- Advanced training of teachers on Program of III level;
- Advanced training of teachers of the Nazarbayev Intellectual School of Physical and Mathematic Direction in Uralsk on the Program of III level;
- Advanced training of teachers of secondary schools of the Republic on the Program of III level added by the methods of teaching the subjects (physics, chemistry, biology) participated by staff members of Company PASCO (USA).

Within transfer of the gained experience of CPS in cooperation with the Faculty of Education of the University of Cambridge, publication of informational-methodological magazine “Pedagogic Dialogue” in Kazakh, Russian and English languages was started.

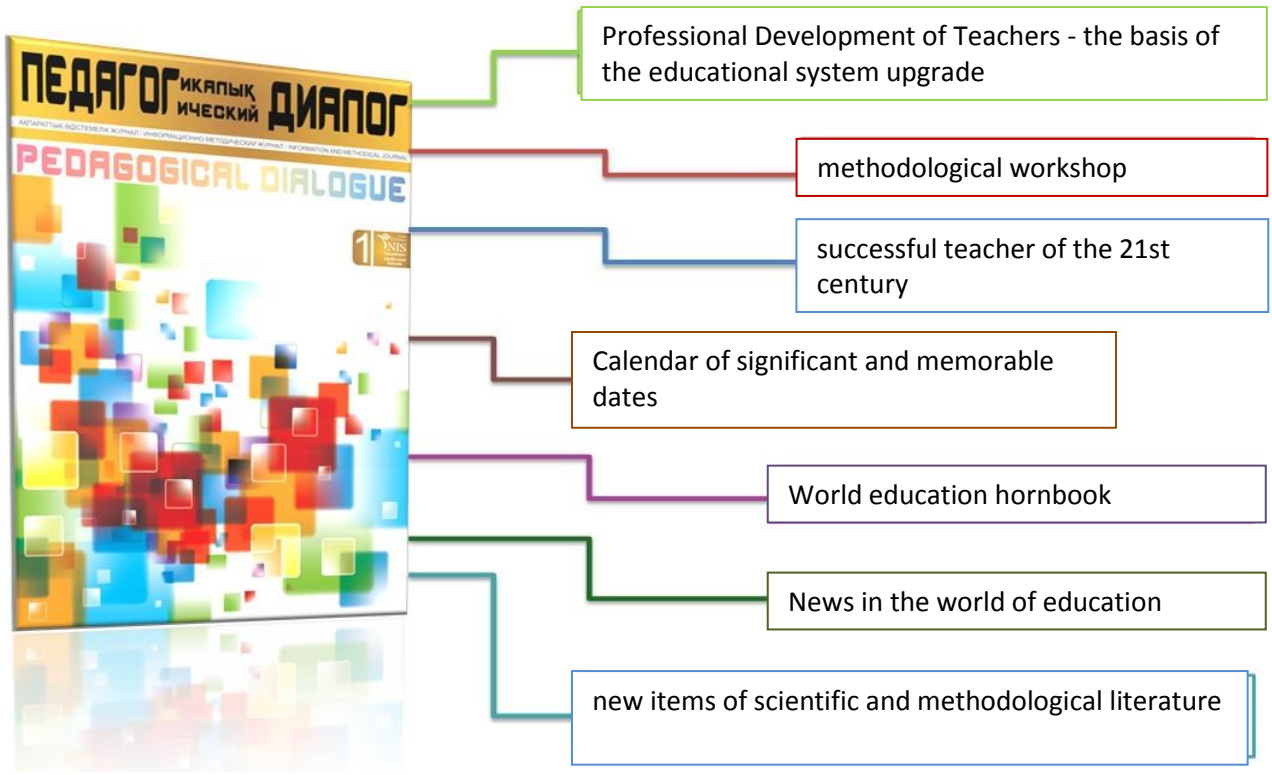
Periodicity of publication is once in a quarter.

The purpose of publication of the magazine is transfer of pedagogic experience of Nazarbayev Intellectual Schools and foreign advanced pedagogic experience to the secondary schools of the Republic of Kazakhstan.

The magazine is registered in the Committee of Information and Archives of the Ministry of Culture and Information of the Republic of Kazakhstan No. 12804 – Ж dated 08 June 2012.

The first publication was issued and presented within the II International Scientific-Practical Conference “Professional Development of a Teacher: Traditions and Changes” on 4 December 2012.

Structure of the magazine:




Annex "Methodological Library of the Centre of Pedagogical Skills" is issued along with the magazine.

Glossary to the level programs of the courses of advanced training of teachers of the Republic of Kazakhstan, compiled by the Centre of Pedagogical Skills jointly with the Faculty of Education of the University of Cambridge was issued as an annex to the first publication of the magazine.

For the reporting period two movies were filmed on implementation of the Kazakhstan-British project on advanced training of teachers of the Republic and two collections of essays with comments of the hearers of the courses of advanced training of teachers of the Republic of Kazakhstan under the general title "The world is changing – we are changing".

**On assessment of teachers and trainers on the results of the level courses on the Program of advanced training of teachers of the Republic of Kazakhstan**

**In line with the agreement** between the AEO and CIE, in order to ensure objectiveness and quality of the procedure of acknowledgement of efficiency of the course training and the level of qualification of Kazakhstan teachers within the Program of advanced training of teachers of educational institutions of the Republic of Kazakhstan, elaborated by the CPS and the Faculty of Education of the University of Cambridge, the **Department on coordination of experts' activity on evaluation** (hereinafter referred to as DCEAE) in CEM was established.

**Goal of the DCEAE activity** is elaboration, testing and introduction of the efficient model of independent evaluation of the quality of implementation of the Program, based on the best world practice, own resources and capacities.

For the purpose of achievement of the set goal **the following documents**, regulating the activity of experts on evaluation, **were elaborated jointly with the CIE**:

1. Manual on evaluation;
2. Model of evaluation of trainers;
3. Principles of evaluation of teachers;
4. Instruction on holding of the qualification examination;
5. Code of ethics.

**During the reporting period the DCEAE** prepared a number of working documents, aimed at improvement of the system of evaluation of the level courses, specification and coordination of the evaluation procedures:

1. General scheme of evaluation of courses – April 2012;
2. Scheme of evaluation of teachers and procedures of evaluation at the level courses of 2012 – May 2012;
3. Instruction on holding of the qualification examination at the courses of the 3rd (base) level – May 2012;
4. Instruction on holding of the qualification examination at the courses of the 2nd (average) level – October 2012;
5. Regulations on evaluation of the level courses of advanced training of teachers of RK (currently, under completion of elaboration).

For the reporting period the DCEAE organized and held the following measures on forming of a team of experts on evaluation:

| № | Name | Venue | Terms |
|---|---|---|---|
| **1** | Competitive selection and training of 32 candidates to the experts on evaluation within the Courses on teaching of trainers of the 3rd level | Astana | 23 January – 16 March |
| **2** | Educational workshop for experts on evaluation participated by CIE specialists (32 experts) | Astana | 23-27 April |
| **3** | Orientational workshop for experts leaving for evaluation of the Courses of the 3rd level | Astana | 31 May – 02 June |
| **4** | Selection of new candidates to the experts on evaluation (22 candidates) | Astana | 12 August |
| **5** | Training of certified experts and candidates to the experts on evaluation within the Courses on teaching of trainers of the 2nd level | Astana | 13 August – 28 September |
| **6** | Educational workshop for experts on evaluation participated by CIE specialists (22 experts) | Astana | 01-05 October |
| **7** | Training of certified experts and candidates to the experts on evaluation within the Courses on teaching of trainers of the 1st level | Astana | 22 October – 08 December |
| **8** | Orientational workshop for experts leaving for evaluation of the Courses of the 2nd level | Astana | 03-04 November |
| **9** | Orientational workshop for experts leaving for evaluation of the Courses of the 3rd level | Astana | 09 December |

For the reporting period the DCEAE and experts on evaluation held **2 cycles of evaluation** of activity of trainers and teachers, who passed training on the Program of courses of advanced

training of teachers of the Republic of Kazakhstan on **the 3rd (base) level and 1 cycle of evaluation on the 2nd (average) level**, within which the following measures took place:

| № | Name | Venue | Terms |
|---|---|---|---|
| **1** | Evaluation of Courses of the 3rd level and holding of the qualification examination | All regional centres, Astana, Almaty, Semey, Taldykorgan | 04 June – 23 June |
| **2** | Moderation of results of evaluation of the Courses of the 3rd level participated by external CIE moderator | Astana | 10-16 July |
| **3** | Appeal and moderation of the results of evaluation of the courses of the 3rd level | Astana | 18 July – 14 August |
| **4** | Validation of the system of evaluation of the Courses of the 3rd level participated by CIE experts | Astana | 31 July – 07 August |
| **5** | Evaluation of the Courses of the 3rd level and holding of the qualification examination | Regional centres, Astana, Almaty | 05 November– 25 November |
| **6** | Evaluation of the Courses of the 2nd level and holding of the qualification examination | Almaty | 10 December– 25 December |
| **7** | Appeal and moderation of the results of evaluation of the courses of the 3rd level | Astana | 12-26 December |

Qualification examinations, procedures of appeal and oral interview held by representatives of the Faculty of Education of the University of Cambridge and CEM experts, the process of packing and unpacking of examination materials in postal service were filed in full for ensuring confidentiality of materials.

**Quantitative indicators of evaluation and certification of courses held in 2012**

| **Teachers** | **3rd level** 04.04-23.06 | | **3rd level** 10.09-25.11 | | **2nd level** 01.10-25.12 | | **TOTAL** | |
|---|---|---|---|---|---|---|---|---|
| | **number** | **%** | **number** | **%** | **number** | **%** | **number** | **%** |
| **At the beginning of courses** | **3292** | 100,0 | **4292** | 100,0 | **300** | 100,0 | **7884** | 100,0 |
| **Admitted to qualification examination** | **3256** | 98,9 | **4268** | 99,4 | **299** | 99,7 | **7823** | 99,2 |
| **Passed qualification examination** | **3043** | 92,4 | **4062** | 94,6 | **266** | 88,7 | **7371** | 93,5 |
| **Recommended for certification** | **3038** | 92,3 | **4105** | 95,6 | **276** | 92,3 | **7420** | **94,1** |

| | | | |
|---|---|---|---|
| **Total on levels at the beginning of courses** | 3rd level **– 7584** | 2nd level – **300** | |
| **Total on levels recommended for certification** | 3rd level – **7143** (94,2 %) | 2nd level – **276** (92,0 %) | |

| **Trainers (total - 273)** | **3rd level** 04.04-23.06 | | **3rd level** 10.09-25.11 | | **2nd level** 01.10-25.12 | | **TOTAL** | |
|---|---|---|---|---|---|---|---|---|
| | **number** | **%** | **number** | **%** | **number** | **%** | **number** | **%** |
| **At the beginning of courses** | **227** | **100** | **128** | **100** | **28** | **100** | * | * |
| **Recommended for certification** | **208** | **91,6** | * | * | * | * | * | * |
| **Total on levels at the beginning of courses** | 3rd level **– *** | | | | 2nd level – * | | | |
| **Total on levels recommended for certification** | 3rd level – * (* %) | | | | 2nd level – * (* %) | | | |

*** -** the data is processed (portfolio of trainers are at moderation) and will be prepared to the Examinational Board on validation (26.01.2013)

Efficiency and quality of activities of both the DCEAE itself, and implementing a Model for assessment and Program of Courses as a whole, were constantly monitored and analyzed. Thus, over the reporting period DCEAE prepared a number of **information-analytical documents** aimed at improvement and development of the Project:

1. **Analytical note** on evaluation system (for trip to Cambridge) - April 2012;
2. **General scheme** of assessment of level courses - April 2012;
3. **Scheme of assessment** of teachers and procedures for assessment at level courses in 2012 - May 2012;
4. **Presentation of evaluation system** in MES RK - June 2012;
5. **Presentation of results of qualifying examination** in AEO and MES RK - July 2012;
6. **Analytical note** on results of the 1st run of courses of 3rd (base) level - August 2012;
7. **Issues paper** on evaluation system of level courses for CIEB - August 2012;
8. **Analytical note** on implementation of the Program of level courses of advanced training of teachers of RK - September 2012;
9. **SWOT-analysis of problems** of implementation of the Program of level courses of advanced training of teachers of RK - October 2012;
10. **Presentation of results of the Program** of level courses of advanced training of teachers of RK - November 2012;
11. **Proposals for development of the Program** of level courses of advanced training of teachers of RK for 2013-2016 - November 2012;
12. **Presentation of evaluation system** and proposals for its improvement in MES RK - December 2012.

As part of implementation of the mentioned task in May 2012 a working version of the educational portal cpi.nis.edu.kz was created. By means of the portal portfolio and presentations of teachers, trainers and experts were uploaded. Online formative assessment

and summative assessment of teacher by trainer, to trainer by expert is held. The lists of teachers and the latest news were published.

The database on portfolio and presentations of teachers, portfolio of trainers, portfolio of experts was created. The work with the postal service for sending-receipt of examination material to the University of Cambridge and around Kazakhstan and the company's work at the weekend, as qualification examination was held on Saturday or Sunday, was adjusted.

**Plans for 2013:**

1. Improvement and updating of the regulatory framework regulating the activities for examination and evaluation of the quality of implementation of courses;
2. Separation of the DCEAE in a separate structure as an independent organization for evaluation, expanding the functions for implementing of a Model of Evaluation of the Efficiency of Activity of Certified Teachers of 3, 2 and 1 levels in post-course period together with the Committee for Control in the Sphere of Education and Science of the MES RK;
3. Further formation of a team of professional experts for evaluation, improvement of their qualification;
4. Elaboration and improvement of a database of test questions and tasks for qualified conduct of the qualification examination;
5. Completion of elaboration and launch of a new version of an independent Internet portal in the 2nd half of 2013;
6. Development and launch of the Model of Information and Methodological Support and Evaluation of Efficiency of Activity of Certified Teachers in post-course period;
7. Forming of the base for measuring of quality of Courses in various fields;
8. Conduct of evaluation procedures upon completion of the levels of training of teachers.

**Network community of teachers of the Republic**

On 10 January 2012 the information web-site of CPS www.cpm.kz in Kazakh, Russian and English languages was launched.


On 13 January 2012 a portal was created on the web-site that regularly posts materials of level Programs, developed jointly with experts from the University of Cambridge, as well as video materials, slide presentations, tasks for self-study and additional literature on the Kazakh and foreign advanced teaching experience.

On 6 April 2012 a network community of teachers was established. The community members are all hearers of CPS courses, branches, involved state pedagogical institutions, National Centre of advanced training "Orleu" and its affiliates.

As of December 2012 7600 students were registered on the website and 112.821 visits were recorded.

**Basic school on transfer of experience of Intellectual Schools**

The Ministry of Education and Science of the Republic of Kazakhstan with the regional education authorities identified 35 basic educational organizations to disseminate the AEO experience.

The analysis of these organizations showed that, from among the basic organizations were:

- State institutions - 34 (97.1%), non-state – 1 (2.9%) (Kazakh-Turkish Lyceum complex "Nurorda", Astana);
- Municipal schools - 33 (94.3%), rural -2 (5.7%)
- Complete schools -31 (85.7%), low-complete - 4 (14.3%).
- 3 (9.6%) organizations – Kazakh-Turkish lyceums;
- Schools with Kazakh language of education - 16 (45.7%), Russian - 6 (17.1%), combined - 13 (37.2%).

Among 35 basic schools: 16 – schools of new type (4 school-lyceums, 10 school-gymnasiums, 1 regional specialized school, 1 regional school with in-depth study of subjects), 14 – schools for gifted children, 5 – general education schools.

In-depth study of languages is observed in 21 basic schools, experimental work – in 24 basic schools.

**Qualitative composition of teachers:**

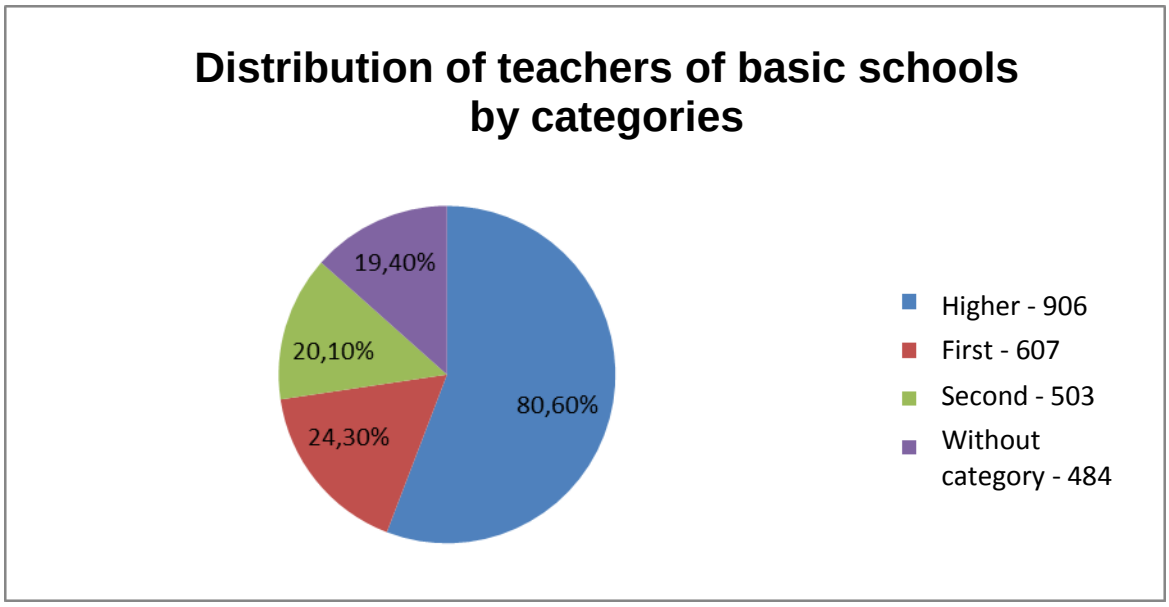
Among 2500 teachers of the basic schools:

- 20 (0.8%) teachers of 8 basic schools passed advanced training abroad;
- 107 (4.3%) teachers of 11 basic schools passed advanced training on the Program of the 3rd level based on CPS;
- 58 (2.3%) teachers are in the network community based on CPS;
- Number of administration – 215 people, at the average 6 people per school, 82 people (38%) passed training on the issues of administration;
- 200 (8%) teachers of English language;
- 51 (2%) teachers in 12 schools teach in English.

2379 (95.2%) teachers have higher education, 20 (0.8 %) – incomplete higher education, 101(4%) – secondary professional education.

One teacher (Reg.KTL for gifted youth in Aktobe) studied on the international program "Bolashak" in Baccalaureate. 3 teachers (Reg. KTL for gifted youth in Aktobe, Reg. SI for gifted children "Murager" in Karaganda, O.Zhautykov RPMSI) studied abroad on international fellowships.

In 27 schools 82 (3.3%) teachers have Master's degree. 22 (0.9%) teachers have academic title of candidate of doctor of science, who work in 8 schools.




**Qualitative composition of students**

According to the results of UNT in 2012, the GPA of 33 basic schools graduates was higher than the average score in the Republic (70.9), 2 schools (school No. 9 Taldykorgan, school No. 25 Semey) – below average. More than 100 points out of 125 possible showed graduates of 8 basic schools.

140 graduates of basic schools in 2012 got certificates "Altyn Belgi", 67 – certificates with distinction, 474 – certificates of completion of basic school with honours.

The analysis revealed certain problems for transfer of experience and identified the ways to address these problems, i.e. improvement of the qualitative composition of the teaching staff, material and technical equipment of the basic schools.

During 2012, the following work was performed in the basic schools.

In May 2012 the two-day Republican workshop on transfer of experience of Intellectual Schools on the basis of Intellectual School of PMD in Astana was held.

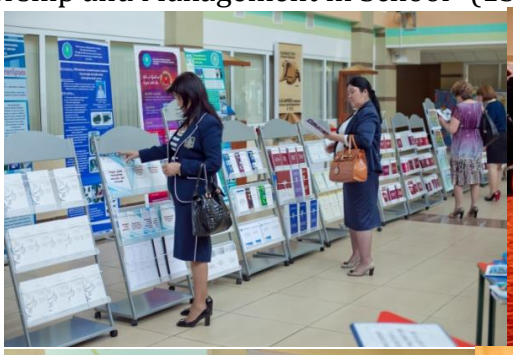
Representatives of the basic schools and education departments were familiarized with the AEO Development Strategy, the priorities of educational work, specifics of work, peculiarities of the system of advanced training in Intellectual Schools.

Master classes of teachers on three sections were held for the participants of the workshop: “New approaches to evaluation: benchmarking evaluation”, “The use of technology of critical thinking”, “Experience of introduction of poly-lingualism in elementary school”. At the end of the workshop the participants received handout.

Representatives of basic schools took part in August conference of AEO, which was organized on 21 August 2012 in the PMD Intellectual School of in Astana, titled **“Pedagogical innovations: from development to implementation”**.

150 teachers of Intellectual Schools, 165 foreign teachers and representatives of 35 educational organizations took part at the conference.


Representatives of basic schools took part in international scientific-practical conferences “Content of secondary education: traditions and changes” (14-15 June 2012), “Leadership and Management in School” (15-16 November 2012) held by the AEO.



The mentioned basic schools are attached to 6 Intellectual Schools. Schedule of workshops for 2013, plan of work with basic schools for 2013-2015 on the following directions were approved:

- Professional development of teachers;
- Content of education (programs, system of benchmarking evaluation, trilingualism, electives);
- The main directions and approaches in organization of educational work.

**Plans for 2013**

In 2013, based on Intellectual Schools it is planned to hold workshops on the methodology of Integrated educational program, use of the system of benchmarking evaluation of academic achievements of students, the main directions of educational work of the AEO, innovational library, etc.

| № | Workshop | Venue | Date |
|---|---|---|---|
| 1 | Benchmarking system of evaluation of academic achievements of students in Intellectual Schools | Taldykorgan | March 2013 |
| 2 | The main directions of the AEO educational work | Uralsk | January 2013 |
| 3 | Organization of regional research expeditions “Tugan elge tagzym” | Ust-Kamenogorsk | May 2013 |
| 4 | “Innovational Library” – for librarians of basic schools | Semey | February 2013 |
| 5 | On new technologies and methodologies of teaching subjects in Intellectual Schools | Astana | October 2013 |
| 6 | On the use of information and communication technologies | Kokshetau | May 2013 |
| 7 | Methodology of Integrated educational program, long-term, medium-term planning | Astana | August 2013 |
| 8 | Use of the system of benchmarking evaluation of academic achievements of students | Kokshetau | October 2013 |

Starting from 2013 to 2015 the following activity is planned:

- adaptation of training programs under the Integrated Education Program, elaborated jointly with the University of Cambridge on three levels (base, main, advanced) and transfer of adapted training programs of three levels to the basic schools;
- organization of training of teachers of basic schools on programs of elective courses, approved in Intellectual Schools, transfer of adapted programs of elective courses;
- organization of workshops on specification and discussion of policy of trilingualism implemented in Intellectual Schools, specification of European References for Linguistic Proficiency (CEFR - Common European Framework of References), on integrated learning of content and language (CLIL - Content and Language Integrated Learning), master-classes on the use of object-language integrated learning, team teaching, etc.;
- organization of workshops on basic approaches to educational work, work with parents, creation of school communities, organization of social practices, Pilot project in basic schools on introduction of service of supervisors, development and transfer of policy recommendations in areas of educational work;
- conduct of workshops on benchmarking evaluation, master-classes on organization of formative evaluation of educational achievements of students in accordance with the

expected learning results and providing the basic schools with the model and technology of benchmarking evaluation of educational achievements of students;
- formation of professional community and organization of networking interaction given the capacity of the base educational platform of CPS web-site www.cpm.kz.

## SECTION 6. NETWORK OF INTELLECTUAL SCHOOLS AND COMMUNICATIONS

### 6.1. Development of the networks of Intellectual Schools

As of the end of 2012, 7 Intellectual Schools operate in 6 buildings in Astana, Kokshetau, Semey, Taldykorgan, Ust-Kamenogork and Uralsk.

| | |
|---|---|
| Intellectual school of Physics and Mathematics Direction in Astana | Established on 4 January 2009. Built on the program "Construction of 100 schools and 100 hospitals" of the Ministry of Education and Science and Akimat of Astana<br><br>The school building is in beneficial ownership of the AEO "Nazarbayev Intellectual Schools".<br>Currently, construction at the left bank of river Ishim near the Nazarbayev University is underway |
| Intellectual school of Physics and Mathematics Direction in Kokshetau | Established on 1 September 2009. Built on the program "Construction of 100 schools and 100 hospitals" of the Ministry of Education and Science and Akimat of Akmola oblast<br><br>Currently, work on transfer of the building to the AEO "Nazarbayev Intellectual Schools" is underway. |
| Intellectual school of physics and mathematics Direction in Semey | Established on 1 September 2009. Built on the program "Construction of 100 schools and 100 hospitals" of the Ministry of Education and Science and Akimat of East Kazakhstan oblast<br>The school building is in beneficial ownership of the AEO "Nazarbayev Intellectual Schools".<br><br>With a view to the proposal of the Akim of oblast on return of the building due to lack of students' place in the micro district, the School Board of the AEO "Nazarbayev Intellectual Schools" decided to build own building |
| Intellectual school of Physics and Mathematics Direction in Taldykorgan | Established on 1 September 2010. Built on the program "Construction of 100 schools and 100 hospitals" of the Ministry of Education and Science and Akimat of East Kazakhstan oblast<br><br>The school building was transferred to the ownership of the AEO "Nazarbayev Intellectual Schools" |
| Intellectual school of chemical-biological direction | Established in the school building on the program "Construction of 100 schools and 100 hospitals" of the |

| | |
|---|---|
| in Ust-Kamenogorsk | Ministry of Education and Science and Akimat of East Kazakhstan oblast<br><br>With a view to the proposal of the Akim of oblast on return of the building due to lack of students' place in the micro district, the School Board of the AEO "Nazarbayev Intellectual Schools" decided to hold planning of own building |
| Intellectual school implementing the programs of International Baccalaureate in Astana | Established on 1 September 2012 based on the Intellectual school of Physics and Mathematics Direction in Astana |
| Intellectual school of Physics and Mathematics Direction in Uralsk | Established on 29 September 2012. The school building is on the balance of the AEO "Nazarbayev Intellectual Schools" |

The AEO holds permanent monitoring of planning and construction of Intellectual schools. The AEO regulatory bodies are permanently informed on the current state of construction. Functions of the customer on construction of Intellectual schools are implemented by "Direction of Nazarbayev Intellectual Schools under construction", which was licensed for rendering services on technical supervision over construction (Direction).

### 6.2. Pre-planning works

**Work implemented in 2012**

The regulations of akimat of cities on granting land lots for planning and construction of 17 Intellectual Schools were amended. All land lots under planning and construction received state acts for land lots.

In Astana within the allocated land area of 10.0003 hectares, at the intersection of Kabanbay Batyr avenue, Turan and Street 31 for planning and construction of two Intellectual Schools of physics and mathematics, chemical and biological directions, 178 summer cottages were located. 152 summer cottages were purchased and demolished, materials on 5 lots are under consideration in judicial instances. An additional land area of 3.982 hectares was allocated for expanding the territory for organizing alley, park area, recreation area and parking areas.

The benchmark data (drainage area, technical conditions for connection to utility networks and communications, architectural-planning assignment) was collected for planning of Intellectual School in Ust-Kamenogorsk, in other cities technical specifications were updated (extended).

In order to improve quality characteristics of design parameters, specific technical requirements for planning of two intellectual schools of chemical and biological and physics and mathematics directions for 720 students each, with a separate bedroom block and office building for 386 sites with the teaching centre and a hotel for 100 persons were elaborated.

In addition, technical specifications and lists of educational technological equipment for Intellectual Schools were prepared and agreed with the Ministry of Education and Science of the Republic of Kazakhstan.

**Plans for 2013**

Within pre-planning works it is required:

- to obtain state acts for land lots for planning and construction of educational-recreational camps in Akmola and Mangistau oblasts, and a boarding school in Kokshetau;

- to accomplish activities for purchase and demolition of summer houses within the borders of the land area in Astana, to draw-up a unified state act for the lot.

## 6.3. Planning

### Work implemented in 2012

Due to inclusion of a number of additional and lost volumes of construction works in 2012 to the composition of projects of modular independent boiler-house, planning works and adjustments of design and estimate documentation for 5 sites (NIS in Shymkent PMS, Taraz, Petropavlovsk, Aktobe and Atyrau). Construction working projects of the NIS in Astana (CBS, PMS) and Aktau were also completed. Positive opinion of the Republican State Enterprise "State Expertise" was received on all working projects, the working projects were approved by the Order of the Agency of the Republic of Kazakhstan for Construction, Housing and Utilities (ACHU RK).

To speed up terms of planning and construction of Intellectual Schools by regions, in 2011 procurement was held and contracts were signed for performance of work on complex construction with the development (referencing) of design and estimate documentation. In connection with the adoption of adjustments of working projects in 2012, additional agreements with contractors were signed.

### Plans for 2013

Completion of planning on construction of Intellectual Schools in Ust-Kamenogorsk and Astana (with a kindergarten), and planning on construction of auxiliary objects (boarding schools and educational-recreational camps).

Adjustment of the project for NIS construction in Almaty (CBS) will be completed in February 2013.

## 6.4. Construction

### Work implemented in 2012

In 2012 construction of 13 objects was concurrently underway: Aktobe, Uralsk, Atyrau, Taraz, Shymkent (PMD and CBD), Petropavlovsk, Almaty (CBD), Astana, Kyzylorda, Pavlodar, Karaganda, Kostanay. From among 15 earlier planned objects to completion, in connection with prolongation of term for construction (due to necessity of adjusting DED), in fact one Intellectual School in Uralsk was put in commission in 2012. Agreement with the Contractor "SPP Metalloizdeliya" LLC was cancelled and works for completion of construction of the NIS in Uralsk in September 2012 were transferred to "Direction of NIS under construction" PE, for this purpose the Direction received the corresponding license for implementing specific types of activity. On 28 September 2012 the act of state commission on put into operation of NIS object in Uralsk was signed:


At the stage of preparation to putting into operation of Schools in Karaganda:


and in Aktobe:


Construction of schools in Shymkent (PMS, CBS), Taraz, Pavlodar, Kyzylorda and Atyrau are also at the stage of completion.

Technical supervision over construction of 12 Intellectual Schools in Pavlodar, Petropavlovsk, Almaty (CBD and PMD), Karaganda, Shymkent (CBD), Aktau, Kostanay,

Kyzylorda, Astana (PMD and CBD) and Ust-Kamenogorsk is carried out by staff members of Private Enterprise "Direction of Nazarbayev Intellectual Schools Under Construction", besides the Direction carries out maintenance of construction on all objects under construction.

Technical supervision over construction of Intellectual schools in Uralsk, Aktobe, Atyrau, Taraz, Shymkent (PMD) was held by engineering companies with a corresponding license.

**Plans for 2013**

In 2013, completion of construction of 12 Intellectual Schools and 4 auxiliary objects (boarding schools and educational-recreational camps) is planned.

In 2013, introduction into operation of all objects under construction, except for NIS in Kostanay, Ust-Kamenogorsk, educational-recreational camps and bedroom blocks is planned. Tender for construction of NIS in Kostanay will be announced early in 2013.

In 2012 the Direction started introduction of the information system for management of Oracle Primavera projects. The software allows for uniting all projects, works of structural divisions of the Direction and contractors due to creation of a portal on filling in of information about construction, and automatize the process of flow of documents among the participants, coordinate activity of the project participants, control the process of construction and form the necessary administrative reporting. In May 2012 staff members of the Direction were trained in the work with Oracle Primavera software.

## 6.5. Material and technical support of Intellectual Schools

Strengthening of material-technical base and its process of automation of accounting is an indicator of efficient activity not only of workers of the Intellectual School, but also provision of quality educational process and creation of favourable educational environment for students.

**Work implemented in 2012**

As part of improvement and rational use of material and technical base of Intellectual Schools within the Single List of material and technical equipment in operational schools and schools under construction agreed with the Ministry of Education and Science of the Republic of Kazakhstan, a pilot project of the AEO electronic automation program for accounting and control of material and technical means (hereinafter referred to as MTM) was elaborated. This program includes both quantitative and qualitative information of MTM, namely location of the equipment, its depreciation, presence and absence of vouchers, need for repairs, percentage of use (operation) of equipment, availability of technical characteristics of the equipment, time period of the introduction into operation, the person responsible for equipment, contact details. There are also the layout plans of the building, of each floor and room, photos of equipment and premises, where equipment will be placed.

This program will allow for continuous monitoring of the material-technical base of the central office, branches and subsidiary centres, and track the real need for resupply.

As part of improvement of the educational process in 2012, Intellectual schools of Semey, Kokshetau, Ust-Kamenogorsk, Astana were resupplied with training and laboratory furniture and German educational equipment for advanced and simple laboratories for physics, chemistry, biology and nanotechnology. 41 teachers were instructed by specialists working on the equipment PHYWE (Germany).

Language classrooms, classrooms of geography, mathematics, fine arts and drawing, history of Intellectual Schools of Taldykorgan, Kokshetau, Astana were resupplied by visual aids.

In execution of the Regulation of the Government of the Republic of Kazakhstan "On Transfer of the Republican Property to the Autonomous Organization of Education "Nazarbayev Intellectual Schools" dated 11 January 2012, No. 19, in March 2012 the process of transfer of the Intellectual School to Taldykorgan was completed. Transfer of the Intellectual School of Kokshetau in order to bring certain positions relating to the building in compliance with the legislation, the procedure of transfer was moved to the beginning of 2013. Decision to build a new building in 2013 was taken with regards to Semey.

In order to support and further motivate teachers of operating Intellectual Schools purchase of favourable apartments as service accommodation for 190 teachers of Intellectual Schools of Astana and Kokshetau was held.

Control over operation of service premises and provided office accommodation for teachers and foreign teachers and consultants, internal water supply, drainage, ventilation and heating was enhanced. To ensure safety of life and health of students and employees of Intellectual Schools the requirements for food and security were tightened. Constant monitoring of readiness of Intellectual Schools for the new academic year, readiness of school building for the heating season, the order and safety of students and staff during public holidays is carried out.

**Plans for 2013**

1. Introduction of the AEO electronic program of automation of on accounting and control of material and technical means, training of employees on work with the new program and monitoring of effective use of the program.

2. within the project Unified Informational and Educational Environment, introduction of electronic flow of documents and storage of confidential information of personnel service.

3. purchase of office accommodation for teachers of branches in Uralsk, Semey, Ust-Kamenogorsk.

4. activity on selection and advanced training of specialists in the branches on supervisory issues, on control of obligatory advanced training of suppliers rendering food supply services will continue.

**Provision with textbooks and literature**

**Work implemented in 2012**

During 2012 the **main documents** governing and determining activity of libraries of Intellectual Schools were approved:

1. Rules of use libraries of Intellectual Schools (Minutes of the AEO Board No. 50 dated 23 October 2012);

2. Rules of organizing activity of libraries of Intellectual Schools (Minutes of the AEO Board No.62 dated 26 December 2012);

3. List of textbooks, AMC, additional and scientific-cognitive literature for Intellectual Schools (Minutes of the AEO Board No. 62 dated 26 December 2012).

*Plan of work for 2012-2013 academic years* was approved for libraries of each Intellectual School.

The library stock is formed based on claims from Intellectual Schools for necessary textbooks, educational methodological manuals, fiction. Along with *Kazakhstan* and *Russian* editions the library stock of Intellectual Schools includes books of such known international publishing houses as:

1. **Oxford University Press –** Great Britain,

2. **Cambridge University Press –** Great Britain,
3. **Macmillan –** Great Britain
4. **Pearson - Longman –** Great Britain
5. **Barron's –** USA
6. **Marshall Cavendish –** Singapore

Transfer of necessary books from one library to another was also carried out, 9 acts of acceptance of delivery were drawn-up among Intellectual Schools for optimization of school libraries.

*Chart with the general library stocks of operating Intellectual Schools.*

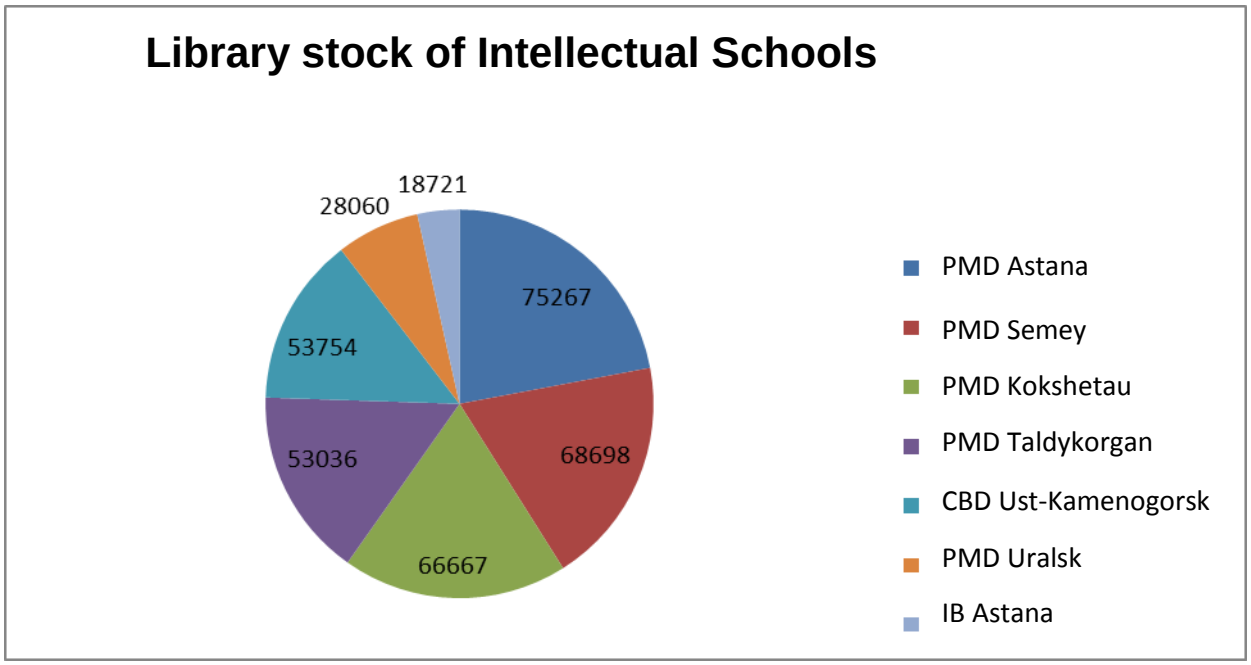



*Table. General library stock of Intellectual Schools in section of the reporting period, cities and on the type of edition.*

| **Number of literature in 2009-2012** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Intellectual Schools** | **Academic year** | **General book stock** | **Textbooks** | AMC | **Encyclopaedias** | **Dictionaries** | **Fiction** | **Additional literature on subject** | **Electronic textbooks** | **Periodical publications** |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Astana PMD** | 2009-2010 | 33108 | 9597 | 12662 | 13 | 44 | 900 | 9030 | 780 | 82 |
| | 2010-2011 | 27002 | 11063 | 10284 | 67 | 21 | 1304 | 4064 | 40 | 159 |
| | 2011-2012 | 7762 | 3959 | 2846 | 2 | 6 | 707 | 92 | | 150 |
| | 2012-2013 | 7395 | 4669 | 1055 | 21 | 51 | 932 | 55 | 138 | 142 |
| **Total** | | 75267 | 29288 | 26847 | 103 | 122 | 3843 | 13241 | 958 | 533 |
| **Semey** | 2009-2010 | 29450 | 14350 | 15085 | 0 | 0 | 0 | 0 | 0 | 15 |
| | 2010-2011 | 25242 | 9670 | 13382 | 53 | 33 | 506 | 1500 | 40 | 58 |
| | 2011-2012 | 8634 | 4181 | 2834 | 36 | 84 | 719 | 687 | 0 | 93 |
| | 2012-2013 | 5372 | 1658 | 1221 | 36 | 87 | 184 | 1910 | 26 | 250 |
| **Total** | | 68698 | 29859 | 32522 | 125 | 204 | 1409 | 4097 | 66 | 416 |
| **Taldykorgan** | 2010-2011 | 32871 | 16692 | 13354 | 37 | 26 | 1615 | 1107 | 40 | 0 |
| | 2011-2012 | 14392 | 6261 | 6072 | 5 | 16 | 1217 | 752 | | 69 |
| | 2012-2013 | 5773 | 2088 | 1519 | 16 | 44 | 829 | 1277 | | 44 |
| **Total** | | 53036 | 25041 | 20945 | 58 | 86 | 3661 | 3136 | 40 | 113 |
| **Kokshetau** | 2009-2010 | 31 153 | 16 452 | 14 633 | 0 | 0 | 0 | 0 | 0 | 68 |
| | 2010-2011 | 25 014 | 9 523 | 13122 | 53 | 31 | 626 | 1526 | 40 | 93 |
| | 2011-2012 | 7 243 | 3375 | 2560 | 35 | 12 | 705 | 479 | | 77 |
| | 2012-2013 | 3 257 | 1360 | 553 | 67 | 34 | 668 | 472 | 103 | 43 |
| **Total** | | 66 667 | 30 710 | 30 868 | 155 | 77 | 1 999 | 2 477 | 143 | 281 |
| **Ust-Kamenogorsk** | 2010-2011 | 31786 | 15203 | 13733 | 19 | 47 | 1488 | 1256 | 40 | 0 |
| | 2011-2012 | 17258 | 7541 | 7351 | 11 | 111 | 1392 | 831 | 0 | 21 |
| | 2012-2013 | 4710 | 3629 | 471 | 48 | 34 | 345 | 131 | 24 | 28 |
| **Total** | | 53754 | 26373 | 21555 | 78 | 192 | 3225 | 2218 | 64 | 49 |
| **Uralsk** | 2011-2012 | 28060 | 16112 | 9315 | 50 | 86 | 1973 | 524 | 0 | 0 |
| | 2012-2013 | | | | | | | | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Total** | | 28060 | 16112 | 9315 | 50 | 86 | 1973 | 524 | 0 | 0 |
| **Astana IB** | 2010-2011 | 1579 | 994 | 313 | 0 | 18 | 2 | 195 | 0 | 57 |
| | 2011-2012 | 6534 | 3979 | 408 | 89 | 72 | 1228 | 758 | 0 | 0 |
| | 2012-2013 | 10608 | 5046 | 255 | 63 | 53 | 4301 | 755 | 0 | 135 |
| **Total** | | 18721 | 10019 | 976 | 152 | 143 | 5531 | 1708 | 0 | 192 |
| **Kyzylorda** | 2012-2013 | 15 412 | 8 542 | 3 256 | 50 | 62 | 1 879 | 1 623 | 0 | 0 |
| **Total** | | 15 412 | 8 542 | 3 256 | 50 | 62 | 1 879 | 1 623 | 0 | 0 |
| **Taraz** | 2012-2013 | 16 633 | 9 125 | 4 325 | 65 | 72 | 1 845 | 1 201 | 0 | 0 |
| **Total** | | 16 633 | 9 125 | 4 325 | 65 | 72 | 1 845 | 1 201 | 0 | 0 |
| **Shymkent** | 2012-2013 | 16 632 | 9 125 | 4 325 | 65 | 72 | 1 844 | 1 201 | 0 | 0 |
| **Total** | | 16 632 | 9 125 | 4 325 | 65 | 72 | 1 844 | 1 201 | 0 | 0 |
| **Karaganda** | 2012-2013 | 16 633 | 9 125 | 4 325 | 65 | 72 | 1 845 | 1 201 | 0 | 0 |
| **Total** | | 16 633 | 9 125 | 4 325 | 65 | 72 | 1 845 | 1 201 | 0 | 0 |
| **Pavlodar** | 2012-2013 | 16 634 | 9 125 | 4 325 | 65 | 72 | 1 846 | 1 201 | 0 | 0 |
| **Total** | | 16 634 | 9 125 | 4 325 | 65 | 72 | 1 846 | 1 201 | 0 | 0 |
| **Aktobe** | 2012-2013 | 17 551 | 9 265 | 4 578 | 65 | 72 | 1 826 | 1 745 | 0 | 0 |
| **Total** | | 17 551 | 9 265 | 4 578 | 65 | 72 | 1 826 | 1 745 | 0 | 0 |
| **Atyrau** | 2012-2013 | 15 419 | 8 549 | 3 256 | 50 | 62 | 1 879 | 1 623 | 0 | 0 |
| **Total** | | 15 419 | 8 549 | 3 256 | 50 | 62 | 1 879 | 1 623 | 0 | 0 |
| **General book stock** | | 479 117 | 230 258 | 171 418 | 1146 | 1 394 | 34 605 | 37 196 | 1 271 | 1 584 |

Licenses for use the collection of *online resources EBSCOhost* are obtained for libraries of Intellectual Schools, which unites a convenient interface with qualitative full text resources from popular and educational magazines, news-papers, inform-agency, shorthand reports, brochures, reports, source documents, biographies, almanacs, dictionaries, encyclopaedias, photos, maps, flags and other reference sources valuable for modern school.

***Advanced training of librarians of Intellectual Schools:***

*On 6-17 February* Heads of libraries of Intellectual Schools passed internship on the basis of the library of the Nazarbayev University in order to improve the resource support of students in scientific-research works.

*On 3 April* participated at the Round Table with specialists of the library of the Nazarbayev University, where innovations of librarianship, service of readers and support in research activity were discussed.

*On 23-28 April* during the course of advanced training in the national Academic Library of RK librarians of Intellectual schools attended lectures and participated at practical classes on information competence, creation of web-sites, accounting of library stock, analytical

processing and analysis of documents, bibliographic characteristics and organization of various events for libraries' users. All participants received certificates on passing the courses.

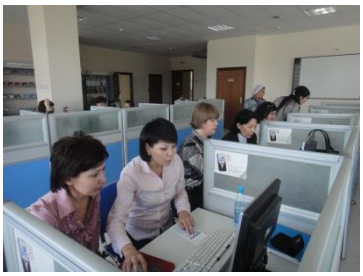
*On 7 May* American Company "Ex LIBRIS Group" jointly with the Nazarbayev University held workshop-presentation on media-resources and library system. The participants had an opportunity to familiarize and practice innovations of media resources and electronic library system for accounting of the library stock and loan.

*On 17 May* the workshop based on the National Academic Library of RK, participation in the Day of Library of Kostanay oblast.

*On 18-25 May* based on the University of Pennsylvania, Philadelphia, USA, the course of advanced training of librarians took place. Content of the course was based on tasks faced by library in changing world, elaboration of draft and plan of school libraries, rational use of space of a library, work with information resources, etc. The course participants attended lectures of experienced specialists of librarianship and solved tasks. They visited school and public libraries, specialists shared their work experience, discussed the issues relating to the main work of libraries, use of space of a library and service of readers.

*On 24-25 August* a section of libraries of Intellectual Schools was organized at the August conference of the general pedagogical staff of Intellectual Schools. The librarians got acquainted with new international colleagues, presented information on implemented activity and plans for the new academic year, discussed challenges and ways of their settlement.

*On 25-29 September* librarians of the branches attended the training course of Professor of department of electronic libraries, information technologies and systems of the Moscow State University of Culture and Arts, Candidate of pedagogical sciences (Russia, Moscow) V.K.Stepanov. The participants learned the use of Internet technologies for support of students and teachers in search for the required information for researches and projects. They learned how to form the lists with useful Internet resources.



The trainees got an opportunity to participate in the *Forum of Librarians of the CIS countries,* where they heard for presentations of professors, specialists of librarianship, who shared their work experience, innovations and changes.

*On 11 December* Scientific-practical workshop "Electronic Library IEEE – Institute of Electronic Engineers", of the National Academic Library of RK.

The employees of library also pass *language courses, ICT courses* of advanced training based on *CPS***,** which promotes communication with international colleagues, improvement of skills and collection of resources from various sources.

Librarians, correspondingly, use knowledge received at courses and workshops, skills and experience in their work. The general indicator of their work is students, who spend their spare time in library and use the resources for solving tasks and scientific-research projects.

Libraries of Intellectual Schools use software *KABIS* – "Kazakh Automated Library-Information System" elaborated by Company "Kazakh Soft". KABIS system is designed for complex automation of library processes and creation of electronic catalogues as well as full-text databases. Currently, work on improvement of the KABIS system is underway.

International library systems for providing online-access both for librarians and users are studied and tested.

*Inventory of the book stock of the branches' libraries* by employees of the AEO "Nazarbayev Intellectual Schools" is annually held.

In 2012 libraries of Intellectual Schools held a large number of events in the library and outside, for example: social campaign "Book-crossing", competitions of bookmarks, best readers, etc. Large contribution was achieved due to the work of employees in *one team* with international colleagues. Active cooperation of librarians with colleagues, teachers of Intellectual Schools and other local school organizations should be also noted.

IT specialists jointly with administration of Intellectual Schools developed *web-sites of libraries* on portals of Intellectual Schools where students, teachers and parents can find the information of their interest relating to the library stock, planned events, news and useful manuals. The library web-site provides information on new received books, useful links for scientific-research projects and important events in school life.

Project of *Association of Libraries* of Intellectual Schools was elaborated. All interested people can take part in the work, resources and improvement of school libraries. In future, the Association will share its work experience with all school libraries of the Republic.

Libraries of Intellectual Schools hold negotiations with librarians of school-partners from other countries (Great Britain, USA) for *cooperation* and exchange of experience.

**Plan of work for 2013:**

1. Equipping with textbooks, AMC and additional resources for opening Intellectual Schools.
2. Transfer of experience in 35 basic schools.
3. Implementation of the project of *Association of Libraries* in Intellectual Schools.
4. Analysis and pilot launch of online library program of accounting, loan and order of books through a single system.
5. Continued cooperation with international school libraries.
6. Study and analysis of e-books of domestic and foreign production.
7. Use of online resources (databases, multimedia, etc.).
8. Participation in workshops, conferences and courses of advanced training.
9. Development of guidelines for librarians of Intellectual Schools.

## 6.6. Informatization

### Work implemented in 2012.

In order to create infrastructure conditions to improve the level of education and research activities through the use of modern information technologies in the educational process, a number of measures were implemented this year.

Since the beginning of the year, all operating Intellectual Schools have been additionally equipped with computer, interactive, peripheral equipment and licensed software. Additional equipping of Intellectual schools was conditioned that for the current year enrolment of primary and high schools increased, at that the number of teaching staff increased.

To date, the computer park in all existing Intellectual Schools has 4900 computers and 398 interactive boards, including:

**Table 1. Equipping with personal computers**

| № | School | Personal Computer | Laptop | Interactive board |
|---|---|---|---|---|
| 1 | PMD Astana | 219 | 1075 | 74 |
| 2 | IB Astana | 38 | 432 | 3 |
| 3 | PMD Semey | 338 | 223 | 64 |
| 4 | PMD Kokshetau | 285 | 260 | 74 |
| 5 | PMD Taldykorgan | 376 | 303 | 65 |
| 6 | CBD Ust-Kamenogorsk | 357 | 291 | 66 |
| 7 | PMD Uralsk | 134 | 569 | 52 |

For the development of creative skills, new open Nazarbayev Intellectual Schools in Uralsk and Karaganda were equipped with mini-TV studios. These mini-TV studios are needed to high school students for implementation of project works, video recording and editing, and creation of reports on school activities, filming of experiments conducted by students and postal on school resources.

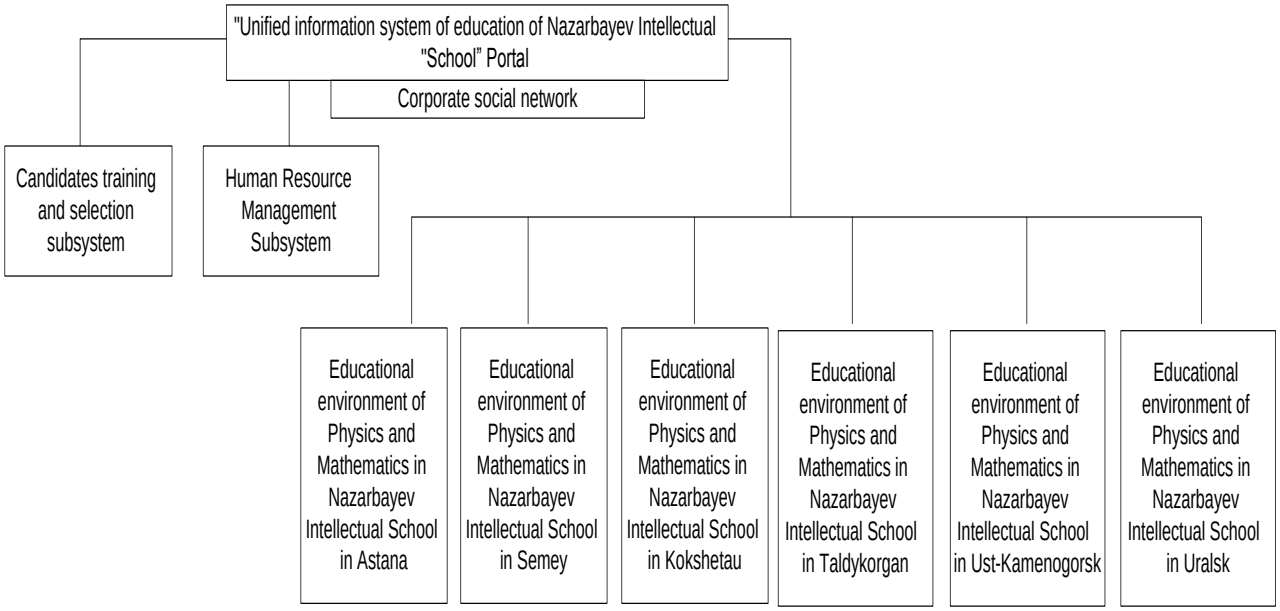
When demonstrating new school in Karaganda the Head of State saw presentation of project “Otan Tanu” with interactive game “Live Program, implemented by means of technology of the mini-TV studio, the possibility of using the Active Table by means of intellectual game “KASIPKER” was also demonstrated. These projects will be replicated in other Intellectual schools.

Classrooms of robotics technology are equipped with various robots and licensed software for learning programming languages.

Libraries of functioning Intellectual Schools in Astana, Semey, Kokshetau, Ust-Kamenogorsk, Taldykorgan, Uralsk, and newly put into operation Intellectual Schools are equipped with electromagnetic anti-theft system, serving as protection against unauthorized removal of the library stock.

However, by means of specialized equipment (computer equipment, video-cameras, video switchers and microphones) and software Elluminate live online lessons conducted in Intellectual Schools are broadcast in real time on web-site (www.sabak.kz), then recorded on electronic media and sent to the Regional Departments of Education in order to share the experience of Nazarbayev Intellectual Schools with the entire system of Kazakhstan education.

A single information and educational environment (hereinafter referred to as SIEE) was created to automate introduction of operational control over the activities of all branches of Intellectual Schools, and automatic production of summary reports on movement of students, academic performance, coverage by additional education, academic load, etc., within which all AEO branches are united into a single educational space, which will allow for use of distance education technologies in the Internet within SIEE modules.




Picture. Hierarchic structure of SIEE

As part of SIEE development, functions in the formation of statistical reports, view in a page list type of participants of the competitive selection were finalized in the Subsystem of selecting candidates.

In subsystem of human resource management, specification of personal files of employees, forming of labour contracts and timesheets, calculation of leave, length of service of employees, and reporting as required by the regulatory framework in the field of human resources were finalized.

In the Corporate Social Network a number of functions related to creation of subject communities, addition/removal of members of communities, online chat, photo albums, scoring on photos of other users, view of events on pages of friends were finalized.

In the subsystem of Information and Educational environment a new module was created, which automates workplace of a medical worker in Intellectual Schools, functions related to benchmarking evaluation in module of electronic magazine, system of distance learning were finalized.

In subsystem Virtual School the capabilities of sending files to multiple users simultaneously, automatic assessment according to benchmarking evaluation and formation of the final result stating information on passage of virtual schools by participants in the next stage in the Recessional School, automatic notifications to e-mail address and personal cabinet of members, view and restoration of deleted users, etc were finalized.

Along with that, this year under the project “Automation of AEO” the following systems were realized:

Automation system of document management processes – designed for complex automation of work with structured and unstructured data, including the processes of creation, storage, transfer, publication, collaboration and destruction of information resources, and organization of electronic documentation and other data processing. The goal of the system is to increase efficiency of employees of the organization with documents and unstructured information.

The procurement system is designed to automate business-processes in AEO

procurement and its affiliates and subsidiaries.

The system of accounting and control of the material and technical means is designed to provide visual presentation of location of material assets (MA) and their condition in all Intellectual Schools.

IT professionals of operating Nazarbayev Intellectual Schools passed certified advanced training courses on the topics: "MS 6425 – Configuring and Troubleshooting Windows Server 2008 Active Directory Domain Services", "Interconnecting network devices 1, 2 Parts" and "Installation, administration and support for FreeBSD".

Activities on building program infrastructure were implemented:

- Online references (itwiki.nis.edu.kz).
- System for projects and tasks management (including for tracking of errors (redmine.nis.edu.kz).
- 1 C Budgeting System.
- Introduction of single standard means of administration and support of soft hardware (pSense, RedMine).

Activity on introduction of program Live@Edu, provided for educational institutions from Microsoft were also implemented. The program is provided for educational institutions free of charge and allows for rich functionality, without incurring any additional material or time costs on the part of the AEO. By means of this program mail accounts of employees/students of Intellectual Schools were transferred to overcast service Live@Edu, using a sub-domain for each Intellectual School of type @школа.nis.edu.kz, which will minimize cost of the AEO in the part of ICT and provide modern level of providing tools for complete work on a daily basis.

Emails on the so-called paradigm "mail for life" were created for students and graduates of Intellectual Schools, i.e. even after graduation from the school the e-mail account will remain with the student, thus allowing form variety of alumni communities and keep in touch with both Intellectual Schools with graduates and graduates with Intellectual Schools.

However, access of all Nazarbayev Intellectual Schools to the program DreamSpark was organized. DreamSpark is free for students and teachers access to full licensed versions of Microsoft tools for development and design.

Use of this program will also reduce costs for ICT component in the budgets of the AEO and Intellectual Schools, and will give access to the use of the latest Microsoft developments to enhance the overall IT level of the AEO and Intellectual Schools.

**Plan for 2013.**

1. Within the project "Automation of the AEO" support of 6 systems (subsystems) - human resource management, training and selection of applicants, budgeting, accounting and control of material and technical means, electronic flow of documents and informational and educational environment.
2. Development of the "Bank of issues" system.
3. Development of the "Digital Library" system.
4. Renewal of old computers with new ones. Intellectual Schools PMD Semey for 30%, PMD Astana for 15% and PMD Kokshetau for 12%.
5. Resupply of Intellectual Schools with mini-TV studio, copying-duplicating

complex, sets of robots, interactive platform, 3d printers, equipment for mini-printing works, tablets, interactive and educational complex KINEKT.

6. Organization of trainings for IT specialists of Intellectual Schools.

7. Organization of trainings for AEO employees on use of existing information systems.

8. Equipping with additional computer, interactive and peripheral equipment of new Astana International School and Kindergarten, Training and Recreational Centre Orken while commissioning.

9. Increase of access of Intellectual Schools to the Internet at speed at least 50 Mbit/s.

10. Expansion of webserver of video-conference Adobe Connect.

11. Expansion of single server 1C, with terminal access.

12. Migration within modernization of program Live@Edu for program Office 365.

## SECTION 7. STRENGTHENING OF IMAGE

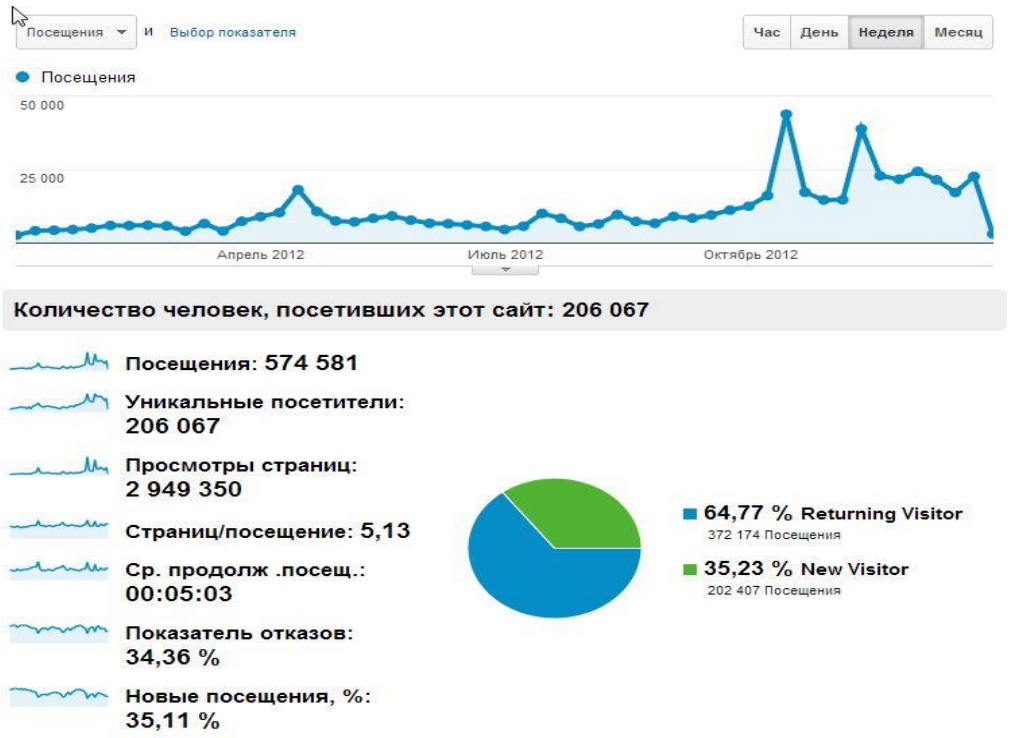
### 7.1. Internet resource

The official corporate website of AEO "Nazarbayev Intellectual Schools" www.nis.edu.kz is an important information resource for community of the country. Through the site the interested Internet users can get maximum amount of up-to-date and relevant information about various activities of the autonomous educational organization. The web-site structure is adapted to users' queries. The web page of the AEO presents all the information regarding competitive selection of students in the Intellectual Schools, selection of teachers, transfer of experience of Nazarbayev Intellectual Schools, in particular a special project "To Teachers" and others was created. In addition, through the web-site, visitors can go to the portal "Virtual School", where potential applicants for scholarship "Orken" register and pass training. Section "Procurement" successfully operates on the web-site.

On the basis of the web-site from 1 September 2011 online classes for students and online workshops for secondary school teachers are held. The projects are aimed at improving the quality of teaching in schools. Lessons are conducted in mathematics, physics, chemistry and biology. During the classes laboratory and practical work solving of high complexity tasks are conducted. The content is designed to increase knowledge and skills of students. As of today, by means of the AEO web-site 340 classes in chemistry, physics, mathematics and biology, as well as 48 workshops on the system of benchmarking evaluation were held.

It is also important that the results of each of the rounds of competitive selection to Nazarbayev Intellectual Schools, record of holders of "Orken" scholarship, reserve lists are published on the web-site. Students and their parents staying at home can quickly learn about the results of the competitive selection. This factor is remarkable by the fact that people living in remote areas may not go to school and learn their scores by downloading files at the web-site.

**Chart. Rating of attendance on web-site www.nis.edu.kz for 2012**




In 2012 the web-site was visited by 574.581 Internet-users. In November 2012 the highest number of views - 101 870 were registered and only on 12 November 11.588 requests were received. High ratings of the AEO portal entitle to mention an increased interest and increasing public awareness about activity of the organization.

At the moment a new version of the official website of the AEO is under preparation, which will be executed in accordance with the latest trends of site building using the most appropriate types of typography within brand book. The new version will be based on the rule of "three clicks" when a user can find any information in no more than three clicks. On the technical side the web-site base will become more powerful, speed will increase many times, the number of features and conditions for the feedback will increase. The capacity of memory and archive for video and photo files will significantly increase. A special version for easy browsing was elaborated for visually impaired people, standard fonts were adapted. However, for tablets and Smartphones a mobile version was created, which will open the possibility for anyone with a mobile device to find and view data of interest in a convenient configuration. The new web-site is integrated with the corporate system EIOS, corporate email, social networks Twitter, Facebook, LinkedIn, VKontakte. Social platform for the Alumni Association of Nazarbayev Intellectual Schools will operate on the basis of the web-resource. Besides, a number of innovations to optimize work of the web-site are provided.

### 7.2. Work with Media

Strengthening of the positive image and reputation of the organization, close cooperation with press representatives is an important part of the AEO activity. In 2012, the media actively connected to the public information about current events and projects of the company. Nazarbayev Intellectual Schools, established upon the initiative of the Head of State, attracted attention of thousands of viewers, listeners and readers across Kazakhstan and abroad.

Over the past year as a result of daily monitoring and monthly content analysis it became known of issue of 453 information materials in the media. These include programs, stories, articles, information notes, interviews, comments on TV, newspapers, radio stations, internet portals of republican and regional significance.

The media platform covering the AEO events was expanded and permanent pool of 10 journalists was entrenched. Today, press representatives are willing to attend events of the organization and prepare information products with interest. It is noteworthy that the number of materials in the state language is growing.

The basic information occasions in 2012 in the press were the following: “The first issue in Nazarbayev Intellectual School of Astana”, “Teachers, who studied on the program of the Centre of Pedagogical Skills and the University of Cambridge, pass the first qualifying examination for obtaining of 30% wage additional charge”, “From 2012 academic year students of grades 7-11 visit online classes in mathematics, physics, chemistry, biology, computer science, English”, “II International Scientific and Practical Conference”, “The content of Secondary Education: Traditions and Changes”, “International Scientific Conference “Leadership and Management at school in 2012”, “II International Scientific-Practical Conference “Professional Development of Teachers: Traditions and Changes”, “August Conference. “Pedagogical Innovations: from Development to Implementation” and others.

**Chart. Rating of the most active Media in 2012**

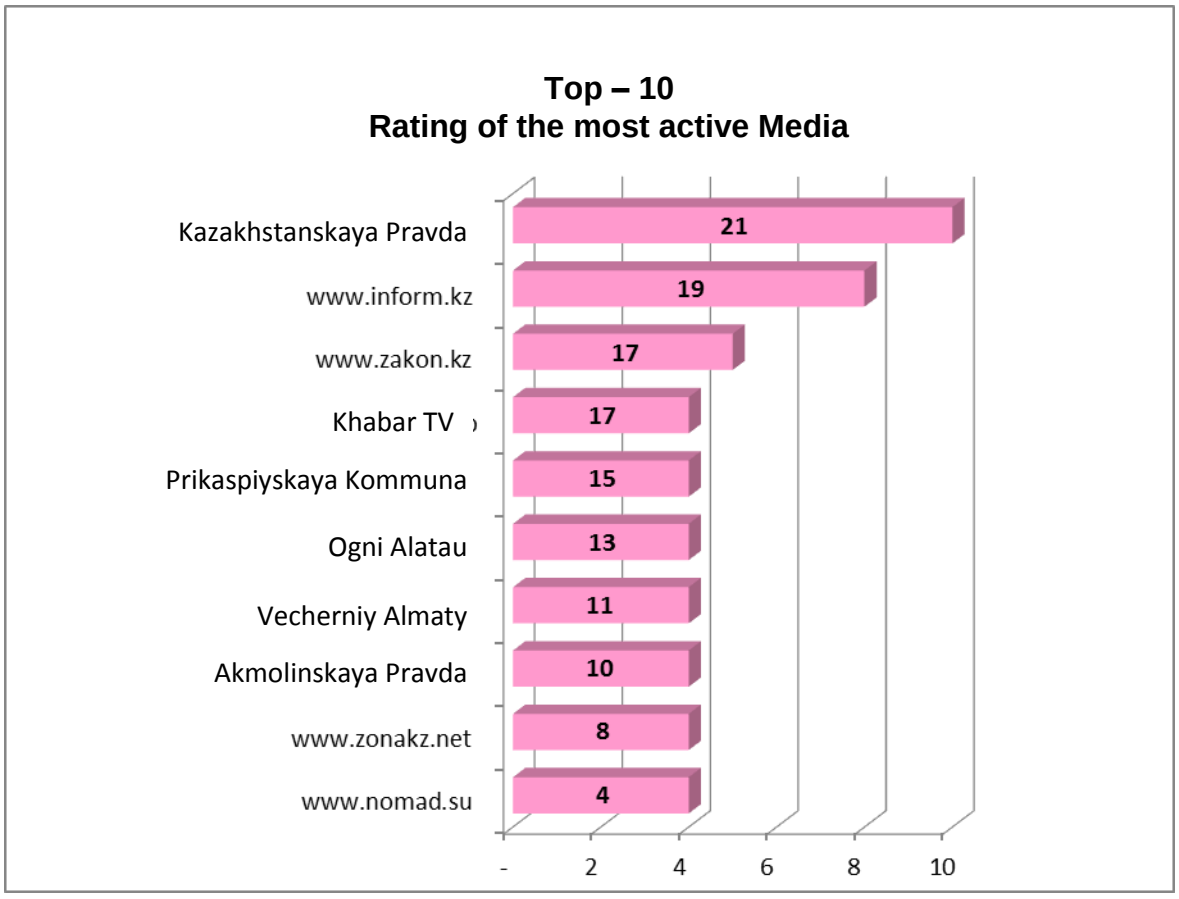
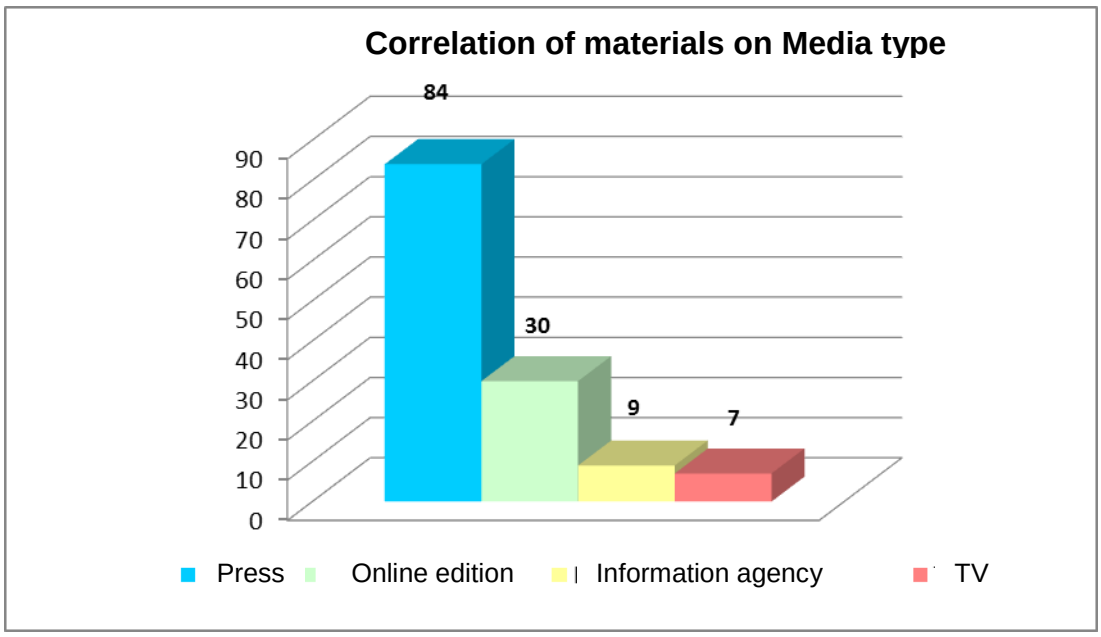



**Chart. Correlation of materials on Media type in 2012**




In February 2012 one of the key events was establishment of the Centre of Pedagogical Skills. Journalists devoted 15 publications to this event, 8 information materials to construction of Nazarbayev Intellectual Schools, and 6 to online lessons.

In March 2012 one of the key events was the Government Resolution "On approval of the Rules of allocation and rate of the educational scholarship of the First President of the Republic of Kazakhstan". Media devoted 10 publications to discussion of this subject, 6 materials to Nauryz meetings held in Astana, the same number of information messages was devoted to two events, i.e. visit of North Kazakhstan region paid by Minister of Education and Science Bakhytzhan Zhumagulov and start of construction of Intellectual Schools in Taraz, in addition, 5 publications were about the issue of release of Intellectual Schools graduates from UNT.

In April 2012, the main topic in the media was the Centre of Pedagogical Skills (opening of courses of the third base level of advanced training of teachers) - 23 materials. Media representatives were interested in opening of the 46th International Mendeleev Chemistry Olympiad in Chemistry in Astana – 6 informational messages, and the topic "Nazarbayev University and University College London will prepare 100 teachers for Intellectual Schools" – 6 materials. Regular reports relate to two issues "Address of President N.A. Nazarbayev to the People of Kazakhstan" – 7 references in the news and the construction of the network of Intellectual Schools – 7 informational messages.

In May, one of the largest events was the working visit of the Head of State to West Kazakhstan region. During the visit, President of the Republic of Kazakhstan Nursultan Nazarbayev visited the PMD Intellectual School in Uralsk, 28 informational messages were devoted to the event, which were broadcast on television, radio, in newspapers and online publications. Other topics: "Construction of a network of Intellectual Schools" – 9 messages, "Minister of Education and Science of Kazakhstan Bakytzhan Zhumagulov working visit to Almaty region" – 6 articles, "Graduate of Intellectual Schools are released for the UNT" – 6 materials, other information occasions – 10.

In June the topics of publications in the media were related to the activities of "Nazarbayev Intellectual Schools" - 21 material, "Construction of a network of Nazarbayev Intellectual Schools" - 16, "Activity of the branches of the Centre of Pedagogical Skills" - 13 messages. The main events in June were "II International Scientific and Practical Conference "The Content of Secondary Education: Traditions and Changes" - 5 materials, pass of qualification examination by 364 teachers on the program of the Centre of Pedagogical Skills and the University of Cambridge - 7 messages, and in 2012, poly-lingualism piloted in 35 schools of Kazakhstan in learning school subjects" - 6.

In July 2012 a number of events covered in press, in particular, related to the "Team of intellectual schools was increased by 100 teachers, who were trained in the program of courses of advanced training" - 3 materials, "I Congress of Teachers of Chemistry and Biology of Kazakhstan was held in Ust-Kamenogorsk "School science education: society, science and technology of the XXI century" - 9 materials, "Twenty-school standouts of Astana Intellectual School in the expedition visited places of the Great Silk Road" and others - 2 materials.

In August, the cameras covered such topics as: "In the new academic year, graduates of Intellectual Schools will pass Cambridge test in 4 major subjects for the first time" - 2 materials, "More than 3 thousand teachers of Kazakhstan passed courses at Intellectual Schools" - 2 materials.

The key event of the new academic year in September 2012 was the open lecture of Head of State at Nazarbayev University. A team of Intellectual Schools also attended the lecture given by the President. The AEO web-site posted more than 20 comments for the lecture of the Leader of the Nation in Kazakh, Russian and English. All AEO employees, starting from the Chairman of the Board finishing by managers, teachers and students shared their comments.

In October, the public learned about several important events of the AEO through the prism of the media: "Intellectual School was established in Uralsk" - 5 materials, "Celebrations of Teacher's Day took place in intellectual schools" - 17 publications.

On 15 - 16 November 2012, "The International Scientific and Practical Conference "Leadership and management of the school in 2012" was open in the capital Palace of school children. 12 informational materials were devoted to this topic.

In December 2012 the following topics were important: "Head of State N.A. Nazarbayev paid a working visit to Karaganda region and visited the Intellectual School under construction" - 47 publications, "Address of President of the Republic of Kazakhstan Nursultan Nazarbayev to the People of Kazakhstan "Strategy "Kazakhstan-2050" - a new policy of the established state" - 16 materials, "II International Scientific-Practical Conference "Professional Development of Teachers: Traditions and Changes" - 9 information events.

## CONCLUSION

Summing up the results of the AEO activity for 2012, we can say that effective work was done on determining the content of education, development of teachers, work with students, the system of quality assessment, creation and development of the network of Intellectual Schools, promotion of the image of the AEO.

For 2012 the AEO achieved the following indicators:

- Integrated educational program, elaborated jointly with the international consultants of the International Examination Council of Cambridge (IECC) was approved and its pilot implementation in the 7$^{th}$ and 11$^{th}$ grades of Intellectual Schools was launched;
- 40 integrated curricula in all subjects for elementary, secondary and high schools and 60 academic plans for 7-8$^{th}$ and 11-12$^{th}$ grades were developed;
- 27 curricula were elaborated given the requirements of the Diploma Program of International Baccalaureate (in 2011 - 25 programs in 11 subjects);
- 13 test specifications were developed for external final evaluation of students of 11$^{th}$ and 12$^{th}$ grades in 2013-2014 academic year;
- tools of the first independent assessment in mathematics, physics, chemistry and biology for students of 12$^{th}$ grades in 2012-2013 academic year were developed;

- comparative testing in English in 5-11th grades of Intellectual Schools were held and the level of English language command was determined in accordance with the levels of CEFR;
- title of "School Candidate" of International Baccalaureate was received;
- memoranda of cooperation with international educational organizations were signed.
- a system of competitive selection, based on assessment of ability to apply knowledge and skills to study natural and mathematical sciences was elaborated, and testing of the system was held;
- a system for monitoring of students' educational achievements within implementation of an integrated curriculum was elaborated and testing of the system was held;
- in Almaty and regional centres mini centres of pedagogical skills were established;
- the AEO became a member of the International Association for evaluation of education, and staff of the AEO presented their experience at the international conference
- three international scientific-practical conferences within the overall theme traditions and changes were held;
- 165 foreign teachers of international level work in Intellectual Schools;
- 100 teachers of intellectual schools enrolled in the program prepared by Nazarbayev University jointly with the University College London (UCL, UK);
- 1984 teachers passed courses of intellectual schools, 5380 teachers – courses in the country, 105 teachers – abroad;
- Projects of recessional and virtual schools function to provide access to forms of education of Intellectual Schools for students in regions and cities of republican significance;
- 7 Intellectual Schools are functioning, active creation of network of Intellectual Schools is underway;
- project "online classes" for secondary school students in mathematics, chemistry, physics and biology is under implementation, and from 1 September 2012 – in English and computer science;
- 52 online workshops were held for secondary school teachers on the system of benchmarking evaluation;
- sections for teachers of mathematics, physics and chemistry were created at the AEO web-site.