

# ANNUAL REPORT

PART 2

NIS EXPERIENCE DISSEMINATION

2020

# ANNUAL REPORT

NAZARBAYEV INTELLECTUAL SCHOOLS  
Autonomous educational organisation

2020

**Part 2**

DISSIMINATION OF THE NIS EXPERIENCE

## ABBREVIATIONS

## INTRODUCTION

## CHAPTER 1. CONTENT OF EDUCATION

9

1.1. Development and revision of course plans

## CHAPTER 2. EDUCATIONAL RESOURCES

11

2.1. Textbooks

13

2.2. Educational Resource Portal

13

2.3. Libraries

14

2.4. Publications

## CHAPTER 3. SUPPLEMENTARY EDUCATION

21

3.1. Pastoral work

## CHAPTER 4. TEACHER PROFESSIONAL DEVELOPMENT IN KAZAKHSTAN

25

4.1. Teacher professional development programmes

27

4.2. Training trainers

29

4.3. Teacher professional development

30

4.4. Monitoring the course training quality

32

4.5. Post-course support of teaching staff

32

4.6. Methodological support for teaching staff

## CHAPTER 5. COOPERATION ON NIS EXPERIENCE DISSEMINATION

41

5.1. Intellectual schools - regional methodological centres

42

5.2. Nationwide experience dissemination

## CHAPTER 6. INTERNATIONAL COOPERATION

## CONCLUSION

# ABBREVIATIONS

MES	Ministry of Education and Science of Kazakhstan
UNESCO	a specialised agency of the United Nations (UN) promoting international cooperation in education, the sciences, and culture
UNICEF	a United Nations agency responsible for providing humanitarian and developmental aid to children worldwide
OECD	Organisation for Economic Co-operation and Development
NIS AEO	Nazarbayev Intellectual Schools Autonomous Educational Organisation
SCES	State Compulsory Education Standard
JSC	Joint-stock Company
ERP	Educational Resource Portal
CEP	Centre for Educational Programmes
CPM	Centre for Pedagogical Measurements
CoE	Centre of Excellence
CQAE	Committee for Quality Assurance in Education and Science of the Ministry of Education and Science of the Republic of Kazakhstan
Orleu	Orleu National Centre for Professional Development
VET	Vocational Educational and Training
PD	professional development courses
MOOC	massive open online course
UNT	Unified National Testing
EAAP	External Assessment of Academic Performance
NTC	National Testing Centre

# INTRODUCTION

The educational policy of Kazakhstan outlines promising steps towards the phased introduction of 12-year education, the introduction of multilingual education in high school, updating the standards of schooling to improve the quality of education and develop the functional literacy of students.

“Nazarbayev Intellectual Schools” Autonomous Educational Organisation conducts consistent work on disseminating experience to state secondary schools, it is one of the main strategic strands of activity following the Instruction of the First President N.A. Nazarbayev given on April 8, 2011.

The work on disseminating NIS experience is implemented within the framework of the NIS 2020 Development Strategy, (approved by the decision of the Supreme Board of Trustees on April 18, 2013), the Roadmap for 2014-2028 on education content renewal (approved by the Ministry of Education and Science of Kazakhstan on August 18, 2014), the Action Plan for 2014-2027 on the transition to 12-year education (order of the Ministry of Education and Science No. 358 dated August 21, 2014), the Plan for experience dissemination until 2020 (the decision of the NIS Board No. 22 dated April 23, 2018), the Plan for experience dissemination until 2023 (decision of the NIS Board No. 58 dated December 25, 2020).

NIS experience is consistently disseminated in a range of areas: education content renewal, methodological support for teachers, teacher professional development, organisation of pastoral work at school, partnership at the national level and international cooperation.

## **The main results of experience dissemination in 2020:**

- transition of the entire secondary education system of Kazakhstan to the renewed education content was completed;
- network sessions of the Republican August conference of the Ministry of Education and Science held in the regions were attended by more than **26 thousand** teachers;
- for the first time in Kazakhstan, 10 teacher training course programmes of CoE received a certificate of compliance with international quality standards;
- CoE entered **the TOP-10 of UNESCO Hamdan Prize** for outstanding practice in the development of teachers' capacity in implementing programmes of the renewed education content;
- for the first time, NIS launched **2 massive open online courses** “LEARNING TO TEACH ONLINE” and “HAPPY PARENT - SUCCESSFUL CHILD” in Kazakh and Russian languages on the international platform **stepik.org**;
- NIS jointly with akimats of Karaganda, Kyzylorda, Akmola, East Kazakhstan, Zhambyl, North Kazakhstan regions, Aitaskz JSC, and Bilim Foundation implemented the Rural School project in 14 rural schools.

The NIS experience is disseminated far beyond the national borders. To follow up previously initiated work, in 2020, the NIS staff held a series of educational events, meetings, dialogues in terms of professional cooperation and sharing experience with colleagues from Russia (KhMAO-YUGRA), Turkmenistan, Uzbekistan.

This report presents the materials on the work done in NIS experience dissemination to the national education system and the international educational space.





# CONTENT OF EDUCATION

## 1.1

---

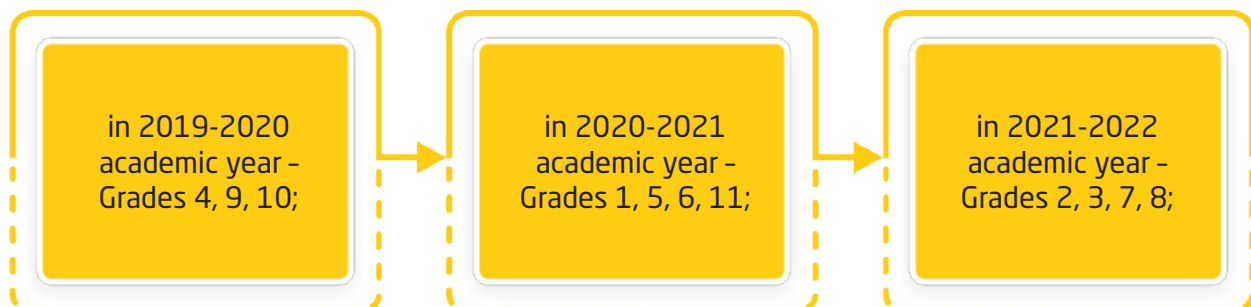
Development and revision  
of course plans

### 1.1. Development and revision of course plans

Within the implementation of Digital Kazakhstan State Programme (clause 5.4. Human Capital Development) for 2018-2019, new subject programmes on Information and Communication Technologies for Grades 1-4, Computer Science for Grades 5-9 (MES Order No. 576 dated October 17, 2018), Computer Science for Grades 10-11 within social

and human science strand and science and mathematics strand (MES Order No. 105 dated March 7, 2019) were revised and approved.

New subject programmes include units on robotics, programming and 3D printing. The study of ICT was transferred to Grade 1 (previously, this subject was studied since Grade 3). New subject programmes are being introduced into the educational process of general educational schools:



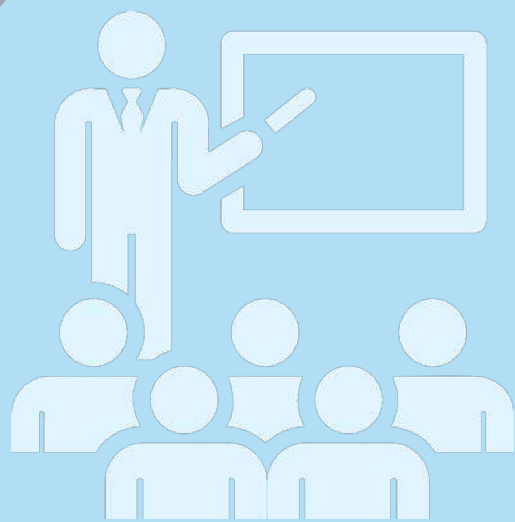
In 2020, NIS delivered **2** workshops on revising medium-term plans for Grades 5 and 6 on Computer Science, **1** workshop on the development of medium-term plans for Grade 1 on ICT. Due to national quarantine restrictions, all the activities on experience dissemination were carried out online. As a result of online workshops **1** document was developed and **2** documents were revised. The documents are available at ERP <http://www.smk.edu.kz/Course/Type/30/190?redirectto=1002>.

It should be noted that in the reporting year, a range of changes were introduced to the State Compulsory Standard for Primary education. Since 2021-2020 academic year, students of Grade 1 will be studying "Alippe" (Kazakh alphabet book) and "Kazakh as the first language". As instructed by the Ministry of

Education and Science, Centre for Educational Programmes developed the respective subject programmes. "Alippe" (Kazakh alphabet book) subject programme will be studied in the first two terms, and "Kazakh as the first language" in the following two. Accordingly, "Alippe" (Kazakh alphabet book) and "Literacy Learning" will be introduced in groups with Russian and other languages of instruction.

In this regard, a working group was established to prepare unified subject programmes. It consists of leading linguists, methodologists, primary teachers and authors of "Alippe" (Kazakh alphabet book) textbooks of previous years. Employees of the CEP Department of Preschool and Primary Education also contributed to this working group.





# EDUCATIONAL RESOURCES

**2.1**

---

Textbooks

**2.2**

Educational  
Resource Portal

**2.3**

Libraries

**2.4**

Publications



## 2.1. Textbooks

### Revision of Grade 1 textbooks

As part of the national curriculum content renewal, CEP revised Grade 1 textbooks on Mathematics, Science, World Understanding, Music, Crafts in both Russian and Kazakh, Kazakh Language L2, Russian Language L2 and "Alippe" (Kazakh alphabet book), Kazakh as the first language (hereafter - textbooks).

At the request of the MES 43 authors involved in the textbook revision received 72-hour online training at the Academy of Pedagogical Sciences NGO on "Textbook development methodology and improvement of textbook-writing skills".



The textbooks revision incorporated minor and major changes to subject programmes and the State Compulsory Education Standard, in particular, the "Literacy Learning" textbook was renamed as "ABC book".

Authors of Societal and Liberal Arts textbooks contributed to the revision on a non-repayable basis. All textbooks were submitted to the 1st round subject-specific review in August-November 2020. Textbooks and teaching materials on "Alippe" (Kazakh alphabet book) and "Kazakh as the first language" will be piloted in 30 pilot schools.



### PECULIAR FEATURES OF TEXTBOOKS

Grade 1 textbooks include activities focused on developing students' research and critical thinking skills, and new features to expand students' understanding. The development of the AR NIS applications is planned for 2021.

The textbooks include musical compositions of Kazakh poets and composers, artworks of famous artists who have granted NIS non-exclusive copyrights for free use. Also CEP obtained permissions to use video and photo materials of Astana Opera State Opera and Ballet Theatre, Astana Ballet Theatre, the Ministry of Defense of the Republic of Kazakhstan, Khabar Agency JSC.



### Revision of Grade 2 textbooks

In November 2020, CEP established project groups of **47** CEP employees to revise Grade 2 textbooks on Mathematics, Science, World Understanding, Music, Crafts in Kazakh and Russian, Kazakh Language L1, Kazakh language L2, Literary Reading (Kazakh), Russian Language L1 and Literary Reading (Russian). Employees of third-party organisations and NIS branches were also involved in the project, **50** authors in total. The first training workshop is planned for the vacation time in January 2021.

### Revision of Grade 5 textbooks

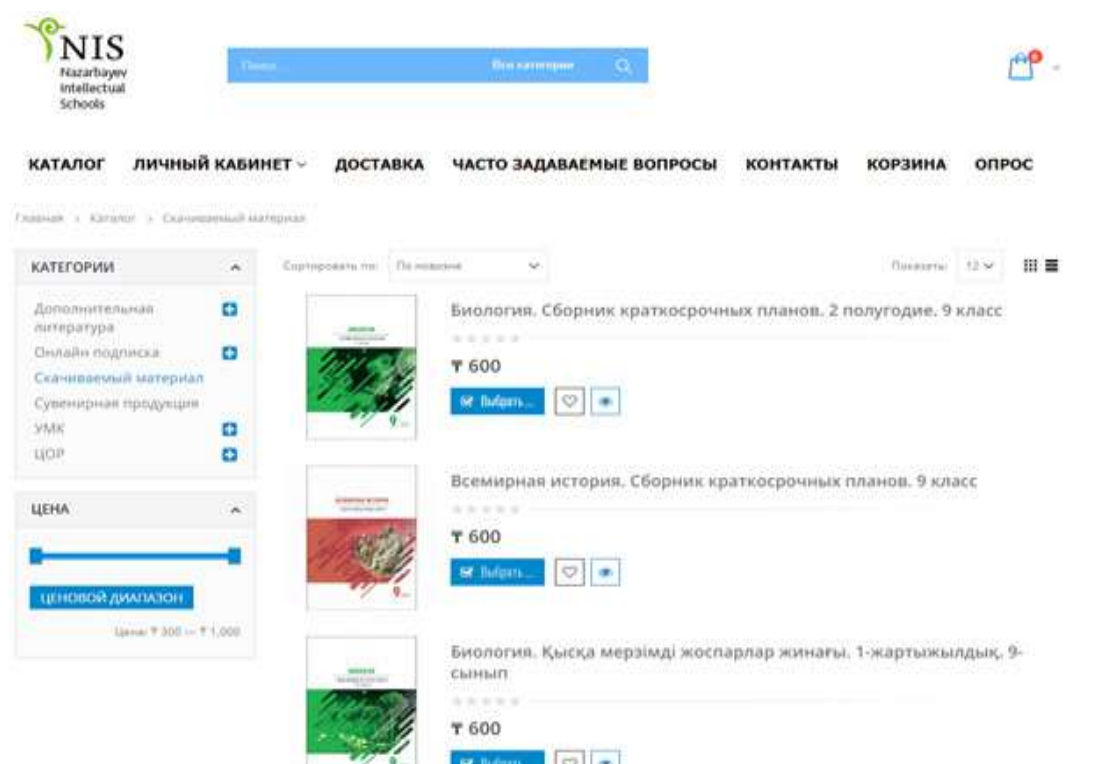
In November 2020, CEP established project groups of 25 CEP employees to revise Grade 5 textbooks on Mathematics, Science, History of Kazakhstan, World History in the Kazakh and Russian languages. Employees of third-party organisations and NIS branches were also involved in the project, 17 authors in total. The first training workshop is planned for the vacation time in January 2021.

### Revision of Grade 7 textbooks

In November 2020, CEP established project groups of 18 CEP employees to revise Grade 7 textbooks on Crafts for boys, Crafts for girls in Kazakh and Russian, Kazakh Language and Literature. Employees of third-party organisations and NIS branches were also involved in the project, **9** authors in total. The first training workshop is planned for the vacation time in January 2021.

### Teaching aids

During the reporting period, CEP developed **32** collections of short-term plans for primary, secondary, and high school teachers, and sold their electronic versions through the online store at **store.nis.edu.kz**.



To provide methodological support to general educational school teachers on criteria-based assessment of students' performance, CPM prepared and submitted the following materials for Grade 11 subjects:

- **64** collections of tasks for formative assessment;
- **58** methodological recommendations for summative assessment;
- **58** specifications of summative assessment for the term.

In addition, **100** additional summative assessment specifications were developed for Grades 4, 9, 10 subjects during the academic year (for students graded “unsatisfactory” for the year).

## 2.2. Educational Resource Portal

Educational Resource Portal ([www.smk.edu.kz](http://www.smk.edu.kz)) has been functioning since August 19, 2016, as a support for the nationwide implementation of the renewed content of education based on the conceptual approaches of NIS-Programme.

The main ERP goals: to **provide methodological and resource support** to general education school teachers; to **develop network interaction** of general education school teachers; to **create a unified information space** for those working in education system.

Content for the respective Grades is uploaded on the ERP as the renewed content of education is phased in.

In 2020, the following materials were uploaded to the Portal:

- 138 documents, including medium-term plans, topic-based scheduling for Grade 11 in the Kazakh and Russian languages (<http://www.smk.edu.kz/Course/Type/30/190?redirectto=1002>);

- **8 methodological recommendations** for reading literacy development in Kazakh and Russian, functional literacy development at Mathematics lessons, science literacy development at Geography lessons, recommendations for preparing students for PISA as part of the curriculum implementation. All methodological recommendations are available in the section “International and research projects” at <http://www.smk.edu.kz/Course/Type/40/1221?redirectto=1212>.

The Portal contains **174 100** materials for **Grades 1-11**.

Over the years, the Portal has become a methodological platform providing for professional teacher communication.

Total number of registered users: **373 495**.

Visits: **17 849 095**.

Views of materials: **15 389 543**.

Downloaded files: **75 515 695**.

Forum posts: **4 595**.

TOTAL number of uploaded files in all sections: **189 719**.

## 2.3. Libraries

In 2020, librarians of Nazarbayev Intellectual schools delivered 17 seminars attended by 457 participants from 102 secondary schools.

The seminars discussed the development of students’ personal competencies through reading, the formation of humanity values, motivational techniques.

On September 16-17, 2020, within the framework of the Rural School project, a seminar was held on: “Information literacy and methods of its formation in school” for librarians of the general educational school of Bolshenarym village, the general educational school named after S. Lastayev, and the general educational school named after R. Marsekov.

During the seminar, practical work was carried out on the following topics:

- Development of information and cognitive competence of students in terms of the Programme for International Student Assessment - PISA;

- Pastoral work through illustrated books: the development of creativity and the ability to reflect;

- The school library - parents interaction in the formation of students’ personal competences;

- Test development and validation through ZipGrade online application;

In addition, the following activities were held: “Literary jam”, “Book Bingo”, “Dictionary of value”. School librarians actively contributed to the seminar, the material and the methods used attracted great interest; during the reflection, the participants shared their views and the ways to use the knowledge and material in future work.

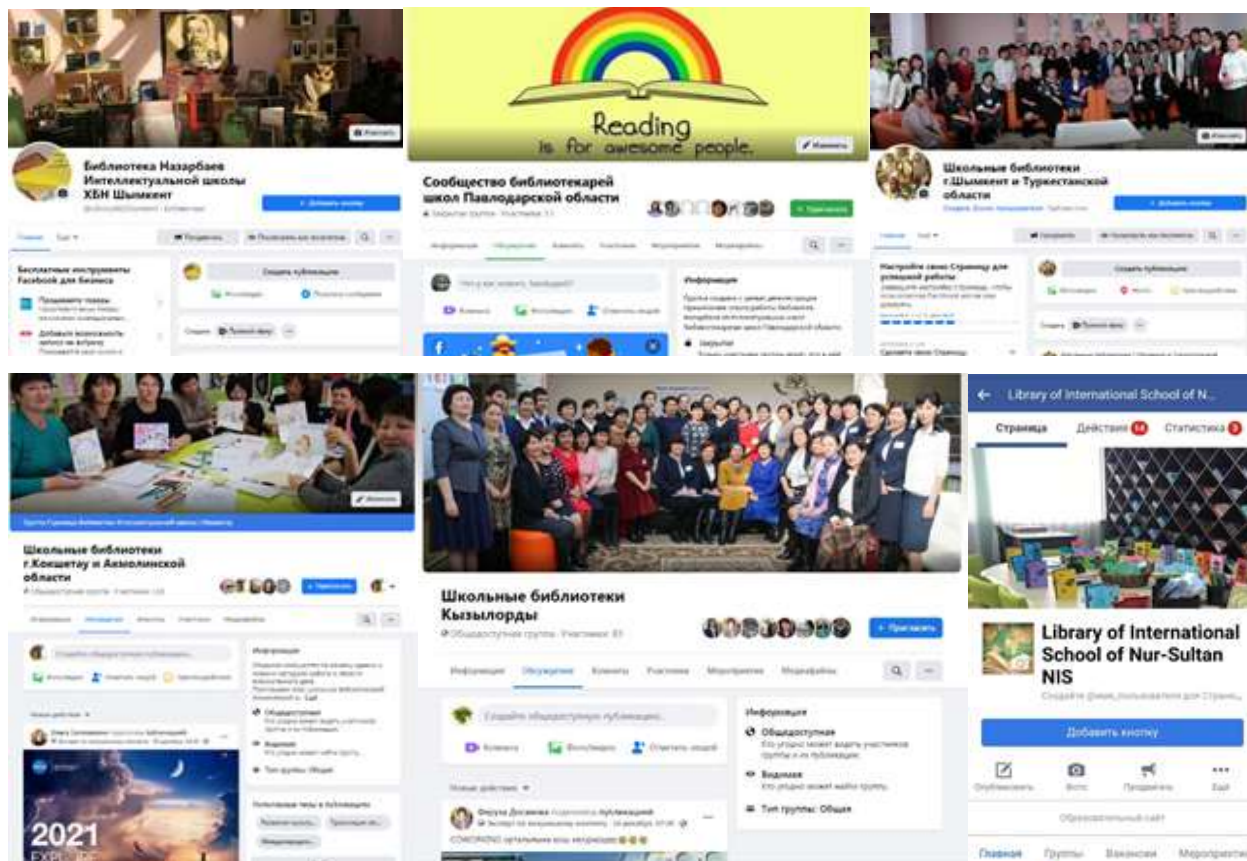
Within the framework of NIS experience dissemination, libraries of general educational schools introduce a number of projects, methods of working with information, actions, innovative forms and methods into their work.

The libraries of general educational schools introduce innovative projects “100 books” to read at school, “READx”, “Readx”, “Sciku” (expressing scientific ideas through poetry), “1,2,3” “Move everything aside and Read”, “Book Start”, “Keyword Hexagon” method, “Book Bingo” games and mind maps, “Book Puzzle”, “Edible books” and “The book conquers the world” events.



Popular “Bookcrossing” initiative is implemented in secondary schools nationwide, as well as interactive “Library Twilight” event to engage children in various interactive activities

(games based on the books read, an online quiz, drama, etc.), teachers and librarians deliver integrated lessons. Reading clubs for students and Family Reading club function in schools.



Libraries of Intellectual schools also act as methodological platforms in social networks to ensure experience exchange and self-education for librarians of general educational schools and public libraries. The libraries of Intellectual schools moderate professional development groups on Facebook. The participants have the opportunity to exchange experience, study new methods and forms of library work, which provides for effective dissemination of the experience of NIS libraries, and consistent search and study of the best practice and methods of work.

## 2.4. Publications

In 2020, 70 titles of methodological manuals were developed, 4 issues of “Pedagogical Dialogue” information and methodological journal (hereinafter – the Journal) were published.

Information and methodological support is implemented in three areas:

- publication of “Pedagogical dialogue” information and methodical journal (in three languages);
- publication of methodological literature on the renewed teaching and learning practices at school;
- publication of methodological resources on the educational portal [www.cpm.kz](http://www.cpm.kz).

Teachers of general educational schools, employees of Methodological centres, district and city education departments, regional education departments are provided with methodological publications annually.

In the framework of “Rural School” project, 14 rural schools were provided with methodological manuals and Journals. The total of 1260 materials were donated.

### «Pedagogical Dialogue» Journal

Pedagogical Dialogue journal has been published since 2012 in Kazakh, Russian and English in cooperation with experts from the Faculty of Education of the University of Cambridge (UK). Publication frequency – 4 issues per year, 2000 copies.

The journal publishes information and analytics on the national and world best practice in education, significant practical scientific and pedagogical achievements, pedagogical research findings of scientists and teachers.

Thematic areas:

- international cooperation;
- school management;
- digital education;
- teaching methods and technology;
- criteria-based assessment;
- education content renewal;
- research in teacher practice.

In the period from 2012 to 2020, 34 issues of the journal were published with a circulation of 68 000 copies. Publication frequency – 4 issues per year, 2000 copies.

In 2020, 4 issues of the Journal were published on topical issues of the school education development:



“Emotional Intelligence”,  
“Distance education”,  
“Student well-being”,  
“Rural school”.



Issue №1 (31) 2020 was dedicated to “Emotional Intelligence”. The Journal presents the results of scientific research and reviews of researchers and educators from Kazakhstan, the United States of America, India, Egypt, Hong Kong, Italy, Russia, Belarus and Uzbekistan on the problems of educating talent, preventing adolescent anxiety, developing divergent thinking, social and emotional skills in teachers and students. It includes articles on practical experience in promoting emotional education in primary school, formation of emotional culture in classroom through the integration of subjects.



Issue №2 (32) was dedicated to “Distance education”. The questions about the advantages and disadvantages of distance education in Kazakhstan, problems of the effectiveness of webinars as virtual learning tools, reviews of new professions relevant in the era of digitalisation, as well as the results of researches of Kazakhstan, Great Britain and Palestine on the features of distance education in these countries may attract readers’ interest. In the Journal, every teacher can review the experience of teaching school subjects through distant learning, shared by Kazakhstani colleagues.



Issue №3 (33) was devoted to “Student well-being”. In this issue of the Journal, the reader can find answers to the questions: “How to create a well-being area for a child?” and “How to make school a comfort zone?” The authors note that school performance had a positive effect on student’s satisfaction with his life, trustful communication with parents contributes to high self-esteem and reduce aggression, friendly relations with peers affect social adaptation. The Journal reveals pedagogical problems of the vulnerability of modern schoolchildren and considers the issues of managing emotions and maintaining the psychological health of teachers.



Issue №4 (34) was dedicated to “Rural School”. The Journal includes articles that describe national and international experience in the development of school education in rural areas, the problems of implementing distance learning. The gap in the quality of secondary education between urban and rural schools and lagging behind in rural schools were discussed. The Journal presents the results of improvement in the quality of knowledge of students from 14 educational organisations in six regions of the country in the framework of the NIS “Rural School” project. The authors detailed the results of the study of educational process in rural schools, including lesson observation and monitoring of students’ educational achievements.

In 2020, 77 authors published their articles in the Journal, including:

26 foreign researchers, international experts and consultants, 13 NIS teachers, 17 CoE employees, 7 teachers of general educational schools, 6 NIS employees, 2 representatives of MES subordinate organisations, 1 representative of “Bilim Media Group”, 1 representative of “BTS Education”, 1 representative of UNESCO, 2 representative of UNICEF and 2 Nazarbayev University Master’s degree holders.

Articles of researchers and education experts from Great Britain, USA, Russia,

Palestine, Republic of Belarus, Hong Kong, India, Egypt, Kyrgyzstan, Pakistan have been published.

Dissemination of experience in the development of preschool and school education systems through the Journal provides for the formation of a holistic picture of the interrelation between the levels of education, the continuity of the content and methods of teaching and learning, the positive experience of changing pedagogical practice, current problems and ways to solve them.

*Table. Qualitative composition of authors of articles in the Journal (2020)*

Country	Specialist	Master’s Degree	PhD	Professor	Total
Great Britain	1		4	1	6
Palestine	1		1		2
Belarus	1	1	1		3
Hong Kong			1		1
USA		1	1	1	3
India	1				1
Egypt	1				1
Russia	2		2		4
Pakistan			1		1
Kyrgyzstan			1		1
Kazakhstan	38	6	10	1	55
<b>TOTAL</b>	<b>45</b>	<b>8</b>	<b>22</b>	<b>3</b>	<b>78</b>

A single information space has been created on the pages of the Journal to present the results of fundamental and applied psychological and pedagogical research, methodological recommendations for improving pedagogical practice.

In 2020, the total of **58** information and analytical reviews, research and methodological articles were published, including:

- 47% foreign researchers, international education experts, which is indicative of high interest of representatives of the international educational space in the changes taking place in Kazakhstani education practice.

- 53% researchers, methodologists, teachers and leaders of Intellectual and general educational schools on practical implementation of criteria-based assessment,

new methods and technology of teaching and learning, organisation of research practice and post-course methodological support.

### Methodological literature

In 2020, Centre of Excellence developed and published **70 methodological manuals**. In total, in the period from 2012 to the present day, **493 methodological manuals** have been published.

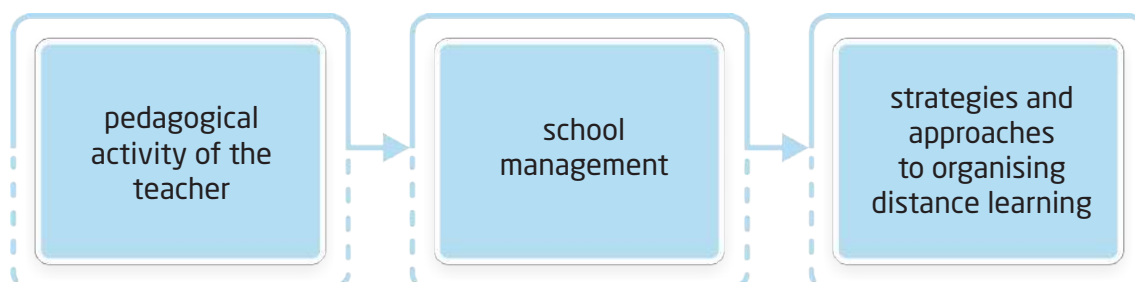
The methodological manuals were developed by the authors on relevant issues of applied and theoretical pedagogy,

psychology, management and other social and humanitarian disciplines, with account of the needs of modern education. The manuals reflect the research culture of teachers, the authors' knowledge of pedagogical research methodology and techniques, the system of research skills and abilities, and research experience. The methodological manuals explain the content of secondary school educational programmes and the specifics of preparation for the learning process.

*Table. The total number of methodological manuals by branches*

№	ЦА/Филиалы	Количество пособий
1	Nur-Sultan	8
2	Aktau	2
3	Aktobe	7
4	Almaty	7
5	Atyrau	1
6	Karaganda	2
7	Kokshetau	2
8	Kostanay	4
9	Kyzylorda	6
10	Pavlodar	6
11	Petropavlovsk	3
12	Taldykorgan	3
13	Taraz	3
14	Oral	4
15	Ust-Kamenogorsk	1
16	Shymkent	11
<b>TOTAL:</b>		<b>70</b>

The methodological manuals can be conventionally divided into the following general thematic categories:





### **The first category «Pedagogical activity of the teacher»**

The first thematic category includes methodological manuals that describe the features of teacher's pedagogical activity in the modern school. The manuals present original ideas of teachers on the methods of pedagogical communication; psychological and cognitive characteristics of children of preschool and school age; lesson study, observation and reflection; development of research competence and self-regulation of the teacher; peculiar features of "Action Research"; specifics of work in the main subjects of secondary and high school and the teacher's ability to organise their own activities; summative assessment.

### **The second category «School management»**

The second thematic category contains methodological manuals that describe the principles, methods, organisational forms and techniques of managing the educational process, when a school teacher is involved in the development and decision making important for the school. It addresses the issues of preparing a school development plan, peculiar features of project management, as well as inclusive education in terms of pedagogical management system. At the same time, the authors emphasise the idea that the introduction of pedagogical management into the modern school practice is determined by the need to implement proper management in the context of reforming Kazakhstan education. Today schools are eliminating uniformity, providing variable educational services, and participating in innovative processes. Such a fundamental change in the school requires a change in teacher and student.

### **The third category «Strategies and approaches to organising distance learning»**

The third thematic category includes manuals on distance and e-learning methods. Today, the authors consider the prospects for the development of education with the use of distance technologies much wider than before the current crisis. It is noted that several years ago distance learning was considered as a

possible form of education, and now distance education is successfully used in general educational schools with both traditional and non-traditional forms of learning. It is impossible to disagree with the authors, as it becomes increasingly obvious that the future of education belongs to flexible learning models, including distance learning.

### **Specific features of methodological manuals by branches**

Methodological manuals developed by the branches in Nur-Sultan, Taldykorgan, Kostanay, Uralsk are of particular professional importance. These manuals consider problems that occur in real professional activity of teachers. So, while selecting of material for the manuals, the authors reviewed the content of texts, exercises aimed at developing various professional skills and abilities.

In addition, the authors observed scientific principle when working with the text. This is evidenced by the authors' ability to understand and generalise the information used in the manual. The texts are problem-based and expand teachers' perspective. They introduce teachers to the realities of professional practice.

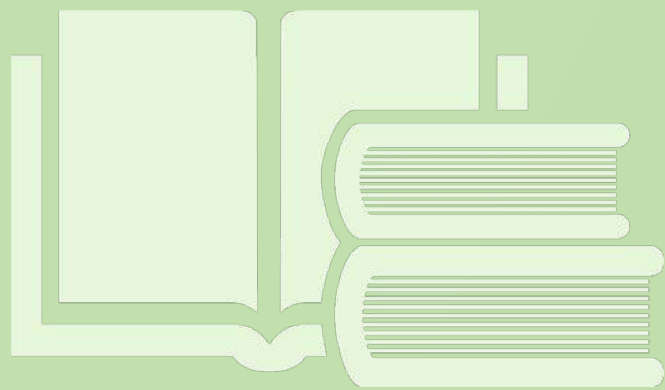
The language the manual is written in is crucial for the reader. Centre of Excellence issues manuals developed in the Kazakh, Russian and English languages.

In 2020, the number of manuals developed in Kazakh and English has increased. The topics of these manuals are relevant and meet the requirements of the modern education system.

Each methodological manual of Centre of Excellence is published under a relevant heading. A wide range of headings is associated with increasing variety of pedagogical topics due to the modernisation and transition to a level-based education system in Kazakhstan. In this regard, the authors have the opportunity to organise and structure their material in accordance with the proposed seven headings. In 2020, the largest number of manuals refer to the heading "In aid of the teacher". This is due to a large amount of action research and lesson study, identification of the professional needs of teachers and school leaders in order to provide effective methodological support.

*Table. Total number of methodological manuals by headings*

No	Heading	Total
1	In aid of the teacher	45
2	In aid of the leader	7
3	In aid of the university faculty member	1
4	From the teacher's practice	5
5	Secondary education content renewal in Kazakhstan	4
6	Pre-school training and upbringing	5
7	Research (Lesson study, Action research)	3
<b>Total:</b>		<b>70</b>



# **SUPPLEMENTARY EDUCATION**

## **3.1**

---

Pastoral work

### 3.1. Pastoral work

#### Образовательная программа «NIS-Programme»

Activity on the organisation of pastoral work are focused on the following target categories: deputy directors for pastoral work, school psychologists, librarians.

Thematic events can be divided into the following areas:

- organisation of the system of pastoral work in general educational schools on the basis of the national idea “Mangilik Yel”, “Shanyrak” school communities and students’ clubs;
- creating a favourable psychological environment at school;
- methods of diagnosis and strengthening the positive relationships in the team;
- modern approaches and methods of work in the school library, interaction with teachers and parents, implementation of projects and reading events in the modern school library, methods and techniques for the development of students’ information literacy.



In the 2019-2020 academic year, to disseminate the experience of NIS pastoral work 137 seminars were held for 13 442 deputy school director on scientific, methodological, pastoral work, subject teachers, class teachers, psychologists, educators. The events were held online, which made it possible to involve a larger number of participants from remote rural areas.

In order to form moral values in schoolchildren, as part of the modernisation of public consciousness “Rukhani zhangyru” and the culture of a healthy lifestyle, the State Programme for the Development of Education and Science of Kazakhstan for 2016-2019 provides for introduction of the Intellectual schools experience through 2 socially significant projects: “Tugan elge tagzym” and “Shanyrak” in terms of NIS experience dissemination.

These projects are already being successfully implemented in general educational schools, they are aimed at developing patriotic education, instilling national and universal human values, love for the Motherland and are very popular among teachers, students and parents.

Since 2019, Nazarbayev Intellectual schools have been working on 4 new projects “Continuity of generations”, “Proverbs I use in my life”, “Songs of the contemporaries”, “Poets of the Great Steppe”. Since the projects have found a positive response among teachers, students and parents, these projects have been scaled to general educational schools since 2020.

In addition, pastoral work projects are being successfully implemented in general educational schools: school governance, Reading Time, Bookroving, Flash mob, “100 Books”, “100 Kazakh songs”, “100 kuys”, “Serving society”, “TEDx”, “Smart Thursday”.

As a result of disseminating the NIS experience of pastoral work, many general educational schools use the proposed models in the development of student and teaching community.

In total, more than 500 general educational schools nationwide implement the projects of Intellectual schools in pastoral work.

To disseminate the NIS experience in organisation of pastoral work through social projects “Continuity of generations”, “Poets of the Great Steppe”, “Songs of the contemporaries”, “Proverbs I use in my life” the following

workshops were held for general educational schools: "Social and EVENT - volunteering in Intellectual schools", "Bookcrossing" project - proactive attitude to life!", "Volunteering is a

path to personal success", "The work of school government bodies", "Volunteering in the nursing home for the elderly and children", "Scientific and volunteering activity at school age".





# TEACHER PROFESSIONAL DEVELOPMENT IN KAZAKHSTAN

## 4.1

---

Teacher professional development programmes

## 4.2

Training trainers

## 4.3

Teacher professional development

## 4.4

---

Monitoring the course training quality

## 4.5

Post-course support of teaching staff

## 4.6

---

Methodological support of teaching staff

#### 4.1. Teacher professional development programmes

In 2020, CoE developed 26 professional development course programmes against the plan of 18 programmes.

The programmes have been developed in 6 areas.

*Table. Professional development courses developed in 2020*

Nº	Areas	2019	2020
1	Methods and technologies of teaching at school, at university/college	10	2
2	Secondary education content renewal	4	16
3	Pre-school education	-	1
4	Management and leadership at school	4	1
5	Pastoral work and practical psychology	9	2
6	Development of functional literacy of schoolchildren		4
<b>TOTAL</b>		<b>27</b>	<b>26</b>

In accordance with the instruction of the Ministry of Education and Science of the Republic of Kazakhstan (letter No. 949-5-465/11-6 dated 06.03.2020), the following teacher professional development course programmes have been developed and implemented within the new strand "Development of functional literacy of schoolchildren":

- "Development of mathematical and reading literacy, creative thinking of schoolchildren";
- "Development of scientific and reading literacy, creative thinking of schoolchildren".

The content of the programmes focuses at the formation of students' functional literacy and creative thinking skills. The work is based on PISA tasks of various levels of difficulty. The course provides for the solution of these tasks, as well as their application in practice. The programmes are designed to train teachers of Intellectual and general educational schools.

"Development and review of assessment tasks" programme has been developed to train primary school teachers. It includes the development of various tasks to assess the levels of subject content acquisition in primary grades, and review of the tasks.

The course programme for school leaders "Innovation Management in School Management" develops the skills of applying modern approaches and tools in innovative, project and pedagogical management based on the best international practices.

The programme for leaders of preschool organisations focuses on solving new professional problems in the field of preschool education. The programme considers the 8-step algorithm of the leadership and change management model, development of a shared vision and development strategy of preschool organisation, as well as the use of effective management tools.

As instructed by the Ministry of Education and Science (letter No. 5-13-6/2457-I dated 03.07.2020), professional development programmes on 13 general education disciplines have been developed for organisations of technical and vocational education in the context of secondary education content renewal. The programmes were developed on the basis of current internationally certified course programme for training teachers of pedagogical colleges.

As instructed by the Ministry of Education and Science (letter No. 19-6/134 dated 11.02.2020), a training programme for employees of the Committee for Quality Assurance in Education and Science was developed with a focus on the relevant issues of methodological management. Employees were introduced to innovative approaches and tools for methodological support of leaders and teachers of educational organisations to be used in inspecting and monitoring the quality of educational process.



Like any other social institution, the work of general educational school is associated with a variety of conflicts. Consistent work of the teaching staff is required to identify and eliminate conflicts, as well as to prevent conflict behaviour. With this in mind, the programme on "Conflict Management in Educational Organisations" has been developed. It considers the ways and means of resolving conflicts that occur in school practice, establishing interaction between the subjects of educational process.

A Modular Programme for Intellectual school teachers has been developed with the aim of improving teachers' skills for effective planning of teaching process, developing skills in the development and application of differentiated tasks, and implementing project and research work for gifted students.

In terms of format, this course is asynchronous with elements of synchronous learning, which allowed teachers to master the content of the programme on-the-job.

### Transition to online training

Due to the sanitary and epidemiological situation in the Republic of Kazakhstan related to COVID-19, in 2020, 21 current teacher training programmes were implemented in the format of distance learning:

- training programme for deputy directors for pastoral work and carrier guidance,
- training programme for deputy directors for pastoral work, education content renewal,
- training programme based on the works of the First President of Kazakhstan - Leader of the Nation,
- training programme for psychologists of educational organisations,
- "Development and review of assessment tasks" in ten general education subjects,
- course programme in preschool training,
- "Research in teacher practice"
- online teacher professional development programme in preschool education,
- "Leadership of the teacher in school" (2nd stage),
- training programme for teaching staff of universities and colleges as part of secondary education content renewal,
- training programme in primary school subjects in the context of education content renewal,
- training programme for NIS deputy directors for pastoral work.

### Massive open online courses

Learning with the use of distance learning technologies has gained widespread appreciation due to its accessibility and usability.

As instructed by the Ministry of Education and Science of the Republic of Kazakhstan, massive open online courses were launched for the first time: "Learning to teach online" and "Happy parent - successful child", in the format of asynchronous learning.

The programme of the online course **"Learning to teach online"** considers planning, organisation and conducting teaching in the context of distance learning. Particular attention in the online course is paid to exploring various services and platforms, including those developed in Kazakhstan. For these purposes, a Service Guide was created, as well as an ICT-robot chat bot in Telegram.

The content of the online course **"Happy Parent - Successful Child"** is based on the idea that parents lay the foundation for a child's professional success. The suggested modules provide materials on the formation of 21st century skills in the family, describe the age-related psychological characteristics of children, and the ways to solve various psychological and pedagogical issues.

Massive courses were successfully implemented among the pedagogical and parent community nationwide and received positive feedback.

### International certification

In 2020, in accordance with the Action Plan for 2019-2020 for the implementation of the NIS 2030 Development Strategy, further work was carried out on the international certification of 2 teacher training course programmes:

- "Development and review of assessment tasks" in Mathematics,
- for psychologists of educational organisations.

Certification of programmes is carried out by the Accreditation, Certification and Quality Assurance Institute ACQUIN (Germany), the cooperation resulted in unconditional international certification of **10 training programmes for teachers in Kazakhstan** for three years.

Table. Certified professional development programmes

Nº	Title of the programme	Year of certification
1	Effective Learning	2018
2	Teacher Leadership in School	2018
3	Teacher Leadership in the Teaching Community	2018
4	Programme for the leaders of educational organisations of Kazakhstan	2018
5	Educational programme of teacher professional development course in "Mathematics"	2019
6	Educational programme of the school-based professional development course "Research in teacher practice"	2019
7	Professional development course programme for teachers of preschool organisations	2019
8	Professional development course programme for faculty of teacher training universities and colleges	2019
9	Teacher professional development course programme "Development and review of assessment tasks" in "Mathematics"	2020
10	Professional development course programme for psychologists of educational organisations	2020

#### 4.2. Training trainers

– The priority area of the CoE activity is training trainers to deliver professional development courses for teachers of Kazakhstan on relevant issues of education, development and learning.

– In 2020, 303 trainers were trained, including:

– 20 trainers according to the professional development programme explaining the ways of

social development, stated in the works of the First President of the Republic of Kazakhstan – the Leader of the Nation;

– 283 trainers according to the professional development programme "Development of scientific/mathematical and reading literacy, creative thinking of schoolchildren".

Table. Number of trainers trained in 2020

Nº	Programme	Number of trainers	including	
			CoE	general educational organisations
1	Professional development programme to explain the ways of social development, stated in the works of the First President of the Republic of Kazakhstan – the Leader of the Nation	20	20	
2	Professional development programme "Development of scientific/mathematical and reading literacy, creative thinking of schoolchildren"	283	34	249
<b>Total</b>		<b>303</b>	<b>54</b>	<b>249</b>

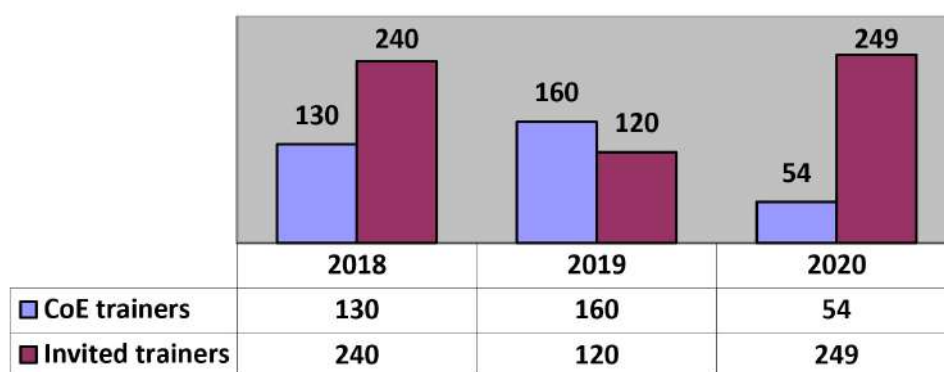
Over the last three years, CoE trained 953 trainers in various programmes for improving the qualifications of pedagogical workers of Kazakhstan, including 609 pedagogical workers in educational organisations involved

in delivering training courses in the framework of secondary education content renewal in Kazakhstan and professional development of teachers of preschool organisations of the Republic of Kazakhstan.

Table. Number of trainers trained in 2018-2020

Number of trainers trained	2018 r.	2019 r.	2020 r.
953	370	280	303

64% invited trainers were trained in 2018 - 2020.



Involving leading teachers of secondary schools in coaching has a positive effect on teacher training in general, since teachers-trainers use examples, cases from school practice, which contributes to better understanding and assimilation of the programme by course participants. In turn, teachers-trainers gain experience and use these skills to improve their own teaching practices and work with their school teams.

### Training school trainers for general educational schools of Kazakhstan

To create an environment for professional development at school, where teachers are trained according to the principle of "peer to peer", CoE trained School trainers (Methodological staff of the school), including coordinators for the implementation of

criteria-based assessment, school trainers in methodology and technology, school trainers on research, trainers on the development and review of assessment tasks.

In 2020, 9 716 school trainers were trained, including 2000 trainers on research and 7716 trainers on assessment tasks development and review. The activity of school trainers is aimed at ensuring overall quality management and methodological support for research processes carried out by school teachers through training teachers at school-based professional development courses "Research in teacher practice".

In the period from 2016 to 2020, 48 326 leading teachers were trained to make up methodological staff of each school, which is 15% of the total number of teachers of general educational organisations.

Table. Number of school trainers trained in 2020

Total number of trained school trainers	by strands			
	school coordinators of the criteria-based assessment	school trainers on teaching methods and technologies	school trainers on research	school experts in the development and review of assessment tasks
48 326	9 056	17 517	5 526	16 227

Training of school trainers contributed to the formation of a pool of professionals ready to solve methodological problems arising in the process of implementing the renewed education content and the system of criteria-based assessment.

#### 4.3. Teacher professional development

In 2020, according to the professional development plan, **37 288** teachers were trained nationwide (*3 766 in classroom, 33 522 online*), including:

- **5 495** teachers of preschool education (*3 495 kindergarten teachers, 2 000 teachers of preschool organisations*);
- **28 660** teachers of secondary education
- **3 133** teachers of technical, vocational and higher education.

In the context of epidemiological situation since March 2020, CoE has revised the format of classroom learning into distance learning.

CoE conducted courses on leadership and management development for 496 leaders of general educational schools in terms of teacher professional development in the secondary education system.

In terms of the transition of state schools to the renewed education content, short-term courses were delivered to:

- **390** leaders, specialists of education departments, district and city departments of education, leaders of general educational organisations;
- **500** deputy schools directors for pastoral work.

In terms of the introduction of a new assessment system in schools, courses on the development and review of criteria-based assessment tasks were delivered to **7 311** subject teachers and **405** methodologists of district/city education departments, and methodological offices. In total, **7 716** education workers completed courses within this strand.

To develop media literacy of schoolchildren, **44** computer science teachers were trained in programming, robotics and 3D printing.

To develop functional literacy of Kazakhstani schoolchildren, teachers of mathematics, computer science, chemistry, biology, physics, geography were trained under the programmes “Development of scientific and reading literacy, creative thinking of schoolchildren” and “Development of mathematical and reading literacy, creative thinking of schoolchildren”. **12 814** school teachers, and **1 718** teachers of state colleges completed the courses.

CoE delivered short-term courses to **1 000** psychologists, **2 900** career guidance teachers and **2 000** school trainers on lesson study.

As part of implementing the strategic areas of activity, CoE carried out the further work on professional development of the teaching staff of higher educational institutions and colleges.

Courses on the renewed content of education were delivered to:

- **800** teachers of universities and colleges on meta-subject programmes;
- **554** regional trainers from among teachers of general educational disciplines of state colleges on subject programmes.

#### 4.4. Monitoring the course training quality

Independent evaluation in the framework of teacher training courses is carried out to determine the level of teachers’ understanding of the content of programmes and certification. Upon the completion of the course, teachers make portfolios and presentations that include reflection on planning and application of new approaches to teaching and assessment. CPM administers evaluation procedures in 6 course programmes.

In 2020, the materials of 46 789 teachers were evaluated, and 43 689 (94%) of them were certified.

Table. Number of teachers by course programmes

Programme	Evaluated	Certified
Teacher Leadership in School	800	727 (90,87%)
Courses for leaders of educational organisations in Kazakhstan	979	929 (94,9 %)
Courses on secondary education content renewal	33038	31474 (95,27%)

Programme	Evaluated	Certified
"Development and review of assessment tasks" in subjects	7102	6272 (90%)
Courses for teachers of preschool organisations	2925	2523 (90%)
Courses for teachers of preschool organisations on preschool training	1945	1764 (90%)
<b>Total:</b>	<b>46789</b>	<b>43689 (94%)</b>

1986 teachers who were not recommended for certification took part in the repeated evaluation procedures.

*Table. Number of teachers who took part in the repeated evaluation, by training programme*

Programme	Evaluated	Certified
Courses for leaders of educational organisations in Kazakhstan	27	23
Courses on secondary education content renewal	1548	1469
"Development and review of assessment tasks" in subjects	247	198
Courses for teachers of preschool organisations	69	69
Courses for teachers of preschool organisations on preschool training	95	95
<b>Total</b>	<b>1986</b>	<b>1854</b>

Due to the current epidemiological situation, the assessment procedures were organised and administered distantly. Therefore, amendments have been made to the regulatory and methodological documents, publicly available on the CPM portal (<http://cpi.nis.edu.kz/>). In addition, to clarify the assessment procedures on the electronic platform and how to upload assessment materials to the portal:

- 2 webinars were held for trainers of CoE and JSC "National Centre for professional development "Orleu"

- Video instructions for all programmes were developed in Kazakh and Russian.

With the aim of supporting the practice of trainer evaluation and providing constructive feedback, online service "Turnitin" was introduced to check the teachers' portfolios for plagiarism.

*Table. Number of materials checked for plagiarism*

Programme	Checked	Plagiarism detected
Teacher Leadership in School	760	150 (20%)
Courses for leaders of educational organisations in Kazakhstan	476	167 (35%)
Courses for teachers of preschool organisations	2353	355 (15%)
<b>Total</b>	<b>3589</b>	<b>672</b>

The check was carried out at the stage of formative assessment, which allowed using the Feedback Studio programme to provide teachers and trainers with recommendations for changing and revising materials.

In the result of analysis of the quality of the materials provided by teachers for evaluation, 5.8% of teachers were rated “unsatisfactory”,

93.1% - “satisfactory”, 1.1% - “good”. Materials rated “good” were uploaded to the Educational Resource Portal website and recommended for teachers nationwide: 43 samples of summative work for the unit, 43 samples of summative work for the term, 280 lesson plans according to the renewed programme.

*Table. Results of evaluation of teachers’ materials*

Programme	Total	Rating					
		unsatisfactory		satisfactory		good	
Teacher Leadership in School	800	73	9,1%	690	86,3%	37	4,6%
Courses for leaders of educational organisations in Kazakhstan	1006	54	5,4%	889	88,4%	63	6,2%
Courses for preschool organisations	2694	103	3,8%	2560	95,0%	31	1,2%
Courses for preschool organisations on preschool training	1911	52	2,7%	1803	94,3%	56	3%
Courses on secondary education content renewal in Kazakhstan	33038	1564	4,8%	31194	94,4%	280	0,8%
Courses on the “Development and review of assessment tasks”	7283	863	11,9%	6377	87,5%	43	0,5%
<b>Total</b>	<b>46 732</b>	<b>2 709</b>	<b>5,8 %</b>	<b>43 513</b>	<b>93,1%</b>	<b>510</b>	<b>1,1%</b>

Based on the evaluation results, in all professional development courses, the training centres were provided with reports with recommendations for improving the quality of teacher training.

To provide methodological support to teachers and trainers, 6 manuals on the development and evaluation of materials for professional development courses were developed and approved by the NIS Methodological Council (Minutes No. 67 dated November 13, 2020).

#### 4.5. Post-course support of teaching staff

Post-course methodological support of teachers of educational organisations and the NIS experience dissemination is carried out in the following areas:

- teaching and learning methodology, including teaching methodology in terms of distance learning,

- content of the renewed programmes and assessment system,
- research in teaching practice,
- organisation of pastoral work,
- management of educational organisation.

The best learning and teaching result is achieved through the use of various forms of working with teachers. It is evidenced by feedback from teachers, reviews and comments on social networks, FB. For several years, the CoE branches have been practicing “methodological squads” based at leading schools, which include attending lessons with feedback, individual and group coaching, delivering a seminar on the stated topic, consulting the methodological staff of the school. This approach allows delivering methodological support to a larger number of teachers, providing support to various categories of teachers, and also involving the school staff in the professional development process. The forms of work include:



- joint observation of lessons of leading school teachers (with teachers from partner schools);
- providing individual constructive feedback to the teacher based on lesson observation;
- joint discussion of identified problems and difficulties and search for solutions;
- conducting training events (seminars, training workshops, master classes) for the teaching staff of leading school;
- joint planning of training activities with teachers of leading schools aimed at solving professional needs with teachers of partner schools;
- development of recommendations for members of the methodological staff in particular areas of professional development;
- repeated lesson observation to identify changes in teaching and learning.

In 2020, methodological centres held 11000 training events for various categories of teachers: school administration, school methodological staff, subject teachers, psychologists, librarians.

#### 4.6. Methodological support of teaching staff:

##### on teaching methods

Due to the sanitary and epidemiological situation in the country, the work on experience dissemination and methodological work is implemented remotely and aimed at solving particular professional needs of teachers in the context of new realities.

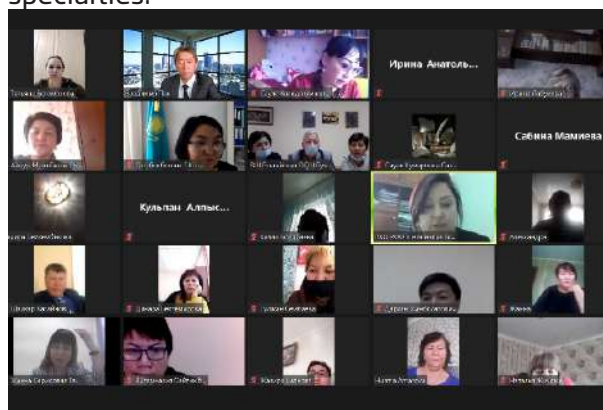


To insure a smooth “shift” to the new format of teaching and learning, CoE created 9 explanatory videos for teachers, students and their parents: recommendations for teachers on preparing a distance lesson; advice to parents on

drawing up a child’s day regimen, on organising the place for study, forms of interaction with teachers; recommendations for students on the organisation of independent work and interaction with teachers to get feedback.

**During the 3 months of quarantine, 870 webinars and 3407 consultations** were held to clarify issues of planning distance lessons, working on ZOOM, MS TEAMS, Google Class platforms, developing differentiated tasks for students using various digital resources, organising students’ independent work, providing feedback.

As instructed by the Ministry of Education and Science of the Republic of Kazakhstan, an online course (MOOC) **“Learning to teach online”** for mass training of teachers was developed and launched nationwide in the Kazakh and Russian languages. Particular attention is paid to the skills of planning and broadcasting online lessons, working in a virtual teacher’s room, ways of organising work with schoolchildren and their parents with the use of Kazakhstani educational platforms. The total of 347 035 teachers attended and successfully completed the course, it was available for teachers and university students of pedagogical specialties.



As part of the methodological support of teachers who completed the online course “Learning to teach online”, a series of webinars on relevant issues of distance learning was held: “The distance lesson objectives: how to develop and measure?”, “Activities for distance learning: how to involve in learning?”, “ICT tools: which of them support independent learning?”, “Recommendations for the organisation of educational process in Grades 1 and 5”, “Educational self-regulation: how to develop though distance teaching?”

In total, 14 post-course support webinars were held in the Kazakh and Russian languages at the participants request. All the webinars are available on the official YouTube channel of CoE.

With the support of CoE trainers, the MOOC was launched for everyone "Happy parent – successful child" in the Kazakh and Russian languages. The online course introduces parents to the issues of designing a "school day" at home, motivation and responsibility of a teenager for learning. About 40 thousand users registered for this course.

In 2020, Methodological centres received about 4921 requests and about 78% of all questions were related to lesson planning and assessment of student achievement in distance learning.

A five-day marathon "Psychological Health" was organised to provide psychological support to teachers of general educational schools. The purpose of the marathon is to provide psychological support to teachers during the period of self-isolation. The total of 516 teachers took part in the marathon. The marathon included daily thematic meetings of the participants with CoE psychologists and invited experts. The participants worked in the format of briefing meetings and consultation. Apart from online meetings during the marathon teachers performed tasks aimed at improving the psychological state as homework.

In April 2020, CEP delivered a webinar on "Implementation of practical activities at science lessons delivered online". This webinar in the Kazakh and Russian languages was the first in a workshop series initiated by Talap Centre for Applied Research for state school teachers and administration of educational institutions.

The webinar covers the research stages of research in chemistry, biology and physics lessons; practical issues of using virtual laboratories, video experiments; simulations; conducting experiments at home. Specific examples demonstrated tasks for designing practical work, which involve data processing, defining variables, filling out worksheets based on the results of the experiment and presenting ready-made experimental results to draw up

research reports. The webinar was attended by **3293** participants from various educational organisations of Kazakhstan.

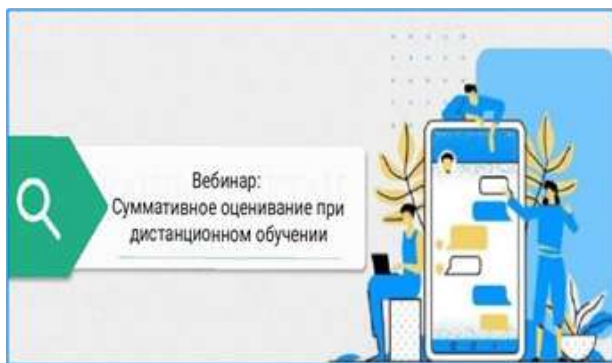


A training course **"Development and review of assessment tools"** for the final attestation of Grade 9 students was conducted to ensure continuity in the system of teaching and assessment in the framework of the renewed education content. The course was organised with the support of the Ministry of Education and Science for 242 teachers and methodologists of regional education departments, education departments of Nur-Sultan, Almaty and Shymkent.



Jointly with "Talap" Centre for Applied Research, NIS held a series of subject-specific webinars "How to organise summative assessment of students in distance learning" attended by 1025 teachers of general educational schools on TALAP Education platform.





The webinars held in an interactive format, provided methodological recommendations for organising procedures and scheduling summative assessment, specific examples of task development, assessment criteria, descriptors and marking schemes. Methods for implementing tasks through technical means are explained on the examples of Microsoft Teams, Forms, Edmodo, etc. At the request of the webinar participants, 239 audio resources were provided to support the development of assessment tasks to assess students' listening and speaking skills. They are available on the NIS Educational Resource Portal (ERP) [www.smk.kz](http://www.smk.kz).

In addition, on the ERP teachers and school coordinators can receive methodological support in criteria-based assessment, and updated summative assessment specifications for the 2020-2021 academic year (the section includes 1725 materials). They can also discuss assessment issues across Grade 1-11 subjects on the ERP.

### **on the content of the renewed programmes and assessment system**

NIS teachers contribute to the dissemination of NIS experience. In the first quarter of 2020, Methodological centres held Methodological days for general educational school teachers at NIS schools. NIS teachers delivered master classes and demonstrated how to plan lessons, assess students in the context of renewed education content, and apply CLIL to subjects taught in English. Methodological centres invite teachers of leading Science schools to attend NIS master classes on laboratory work and Mathematics and Language teachers to attend workshops. Collaborative lesson planning and

team teaching has become a new form of supporting general educational schools.

Over the last year, NIS teachers held 372 master classes.

### **Vacation Schools for Assessment**

Vacation school is a traditional and relevant NIS practice to support teachers in criteria-based assessment. This year, NIS held two vacation schools in winter and autumn attended by nearly 7000 teachers.

Teachers of 10 core secondary school subjects completed training on criteria-based assessment as part of the vacation school. They received recommendations on differentiation, assessment criteria and tools, student motivation, self-regulation and involvement. For the first time, the autumn vacation school provided paid educational services.

### **Methodological support of vocational education (VET) teachers**

CoE trained **554 regional trainers from among vocational school leader-teachers** to prepare vocational school teachers ready for teaching the renewed content of secondary education.

From August to September 2020, CoE implemented a mentoring programme that included collaborative lesson planning, online lesson observation and providing constructive feedback. **In total, regional trainers trained about 11 000 college teachers.**

To regulate further activities of regional trainers, they were provided with Guidance on post-course methodological support for college teachers (regional trainers). In addition, NIS delivered two nationwide webinars on "How to provide an effective post-course methodological support in college" and "How to observe an online lesson and give constructive feedback to the teacher".

In 2020, more than 100 webinars were held for vocational education teachers on the implementation of distance learning and renewed content of education in colleges.

### **TV lessons on El Arna and Balapan national channels**

In April, 2020, MES carried out preparatory activities to get schools ready for transition to the distance learning.

150 teachers of Nur-Sultan including International School teachers and **8 CEP staff members** were involved in the development, recording and review of TV lessons broadcasted on Balapan (in Kazakh) and El arna (in Russian) channels. The video lessons were broadcasted **from 6 April to 22 May, 2020.**

Teachers **developed lesson plans according to the subject programme and presented 5 tasks for each lesson.** TV lessons were designed to develop subject knowledge and skills and deliver the learning material in plain language.

TV lessons were developed and broadcasted in such subjects as Mathematics, World understanding, Science, History of Kazakhstan, World history, Kazakh Language, Kazakh Language and Literature (L2).

CEP team members developed and recorded **164 lessons** in Kazakh and Russian: 10 in World Understanding, 52 in Mathematics, 52 in Science, 15 in Kazakh Language and Literature L2, 13 in Kazakh Language, 18 in History of Kazakhstan, and 4 in World History.

### on research practice

As part of the CoE membership in the World Association of Lesson Studies, the Lesson Study Kazakhstan project is actively implemented. The project aims to train teachers to apply this approach to improve their teaching practice and develop professionally. Majority of schools are involved in the Lesson Study which is evinced by taking an active part in regional conferences, trainings, round table discussions and dialogue platforms.



In 2020, CoE conducted regional/local online research-to-practice conferences “Lesson

study: experience of Kazakhstani schools” to introduce the project outcomes. In total, 16 regional conferences were held and attended by nearly 3000 teachers.

The guest speakers of the conference include well-known teachers and scientists such as Peter Dudley, PhD, President of WALs, Honorary Professor of University of Leicester (UK), and Toshiya Chichibu, Master of Education, senior researcher at National Institute for Educational Policy Research (Japan).

The conference was also attended by teachers and leaders of the Intellectual and general educational schools. Thematic platforms were created to share opinions and discuss the organisation of Lesson Study in the context of digital pedagogy, collaborative research results, their efficiency for students and shared insights and pedagogical explorations. In addition, virtual exhibitions were held where teachers could get familiar with research results.

This year CoE invited trainers from other branches to attend regional conferences and present research results. They raised teachers’ awareness and initiated interregional research for the next year.

### on management issues



In the first quarter of 2020, CoE held training seminars "Approaches and methods of lesson observation in the context of the renewed content of education" for staff members of the Committee for Quality Assurance in Education and Science under the Ministry of Education and Science and its regional departments.

The seminar was intended to improve their skills of effective lesson observation and providing feedback to support schools and develop teachers' professional competences. The trainees learnt how to organise the learning process, effectively plan the lesson, and assess student performance.

One of the activities held for education management team was International Research-to-Practice Online Conference "Crisis management in Education: new experience and practice" (Nur-Sultan, Uralsk and Almaty). The conference was held in cooperation with the Academy of Public Service under the Administration of the President of Kazakhstan. Among the speakers of the Conference, there were managers, researchers and practitioners from 8 countries: Kazakhstan, Belarus, Ukraine, Russia, Armenia, Singapore, Poland and Kyrgyzstan. Leaders and managers of educational organisations attended the conference: schools, colleges, universities, and leadership training centres. They discussed management and educational issues in the context of crisis, leadership and teamwork in educational organisations in the context of modern conditions, shared diverse and interesting experience of crisis management, and reported on the ecological management of professional environment.

A number of joint events were held to provide methodological support to staff members of methodological offices/centres of regional education departments and education departments of Nur-Sultan, Almaty, and Shymkent. They aimed at ensuring the efficiency of learning, developing recommendations for organising the distance learning.

CoE suggested focusing on three key aspects in lesson observation: planning, teaching and learning, and classroom management technologies. It enabled general educational schools to easily adapt to new reality - distance learning.

Post-course methodological support of teachers and NIS experience dissemination to school leaders and deputy directors is carried

out in the following directions:

- advising on the organisation of teacher professional development, organisation of school control, teacher collaboration within pedagogical communities communities of leading and partner schools;

- internship of school leaders in NIS schools to study NIS management in a range of regions (Aktobe, Kokshetau, Uralsk, Taraz, Shymkent);

- trainings and webinars for school leaders on the school development plan, role of school leader in teacher's professional development, lesson observation and feedback and etc.,

- school leaders' club in West Kazakhstan region (2017-2020) on building effective school development programme through interaction of school leaders and human resource management and providing support in the professional development of teachers, creating conditions for school teacher's research and etc.

These activities aim to support leaders of general educational institutions in professional development of teachers and crisis managers.

### **Network sessions of the Republican August Conference of education workers**

Teachers and educators have been provided methodological support as part of August Education Conferences held annually in Kazakhstan.

In 2020, network sessions were held online for school leaders, subject teachers, class teachers and school psychologists - 102 991 people.

In network sessions "Providing methodological support for teachers in the context of distance learning", school leaders discussed teachers' professional needs and effective teaching in the context of distance learning. Subject teachers discussed differentiation and effective teaching methods to support every single student. Class teachers and school psychologists jointly with CoE trainers discussed providing psychological support for students and parents in the context of distance learning.

CEP delivered webinars for session participants on how to develop functional literacy of students through subject programmes within the renewed education content. They also demonstrated specific examples of how learning objectives can be implemented to develop students' mathematical, scientific and reading literacy. Participants received recommendations on

designing tasks to develop PISA competencies.

In total, 115 facilitated sessions, **41** webinars and **5 669** master classes were delivered.

### **Kazakh Language Immersion Project**

Since 2013 Nazarbayev Intellectual Schools have been implementing the Kazakh Language Immersion Project to explore alternative and innovative methods of developing the national language. The project has been implemented jointly with the Innove Foundation (Estonia).

The Kazakh language immersion model was developed by Doctor of pedagogical sciences Prof. Makpal Zhadrina.

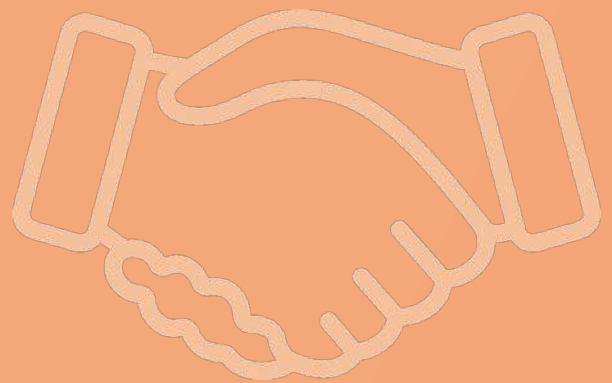
This project was initially launched in the Intellectual schools of Kokshetau and Taldykorgan. The third class of primary school students involved in the Kazakh language immersion project graduated in the 2019-2020 academic year. In the 2020-2021 academic year, NIS students of Grades 2 to 5 are involved in the project.

Due to positive results of implementing the Kazakh language immersion methods

in the Intellectual schools, in 2018, the Ministry of Education and Science initiated the dissemination of NIS experience to preschool organisations of Nur-Sultan, Taldykorgan and Kokshetau:

- Nursery School “Karlygash”, Medical Centre affiliated to the Department of Presidential Affairs, 3 branches
- Nursery School №45 “Arman”, Taldykorgan
- Nursery School №42, Taldykorgan
- Nursery School №2, Taldykorgan
- Nursery School №7 “Aysha”, Kokshetau
- Nursery School №5 “Kuanysh”, Kokshetau
- Nursery School №1 “Arman”, Kokshetau

In 2020, CEP delivered a webinar on the Kazakh language immersion project to **80 teachers** of the above stated preschool organisations.



# COOPERATION ON NIS EXPERIENCE DISSEMINATION

## 5.1

---

Intellectual schools - regional  
methodological centres

## 5.2

---

Nationwide experience  
dissemination



### 5.1. Intellectual schools – regional methodological centres

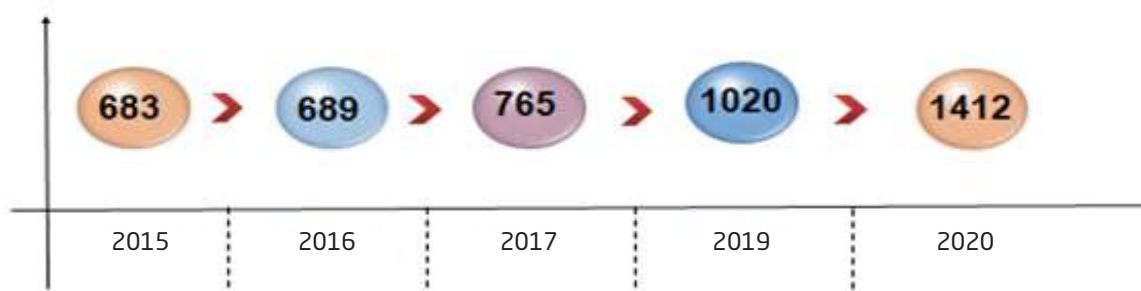
One of the main areas of the work of Methodological centres is methodological support of teachers of educational organisations and NIS experience dissemination through the work with leading schools. The activity of leading schools aims at developing their own professional skills and sharing the accumulated knowledge with the teaching staff of partner schools. It is regulated by the instructional letter No. 11-4/874 "On organising the activity of schools to support the secondary education content renewal" (Leading schools) of the Ministry of Education and Science of the Republic of Kazakhstan dated October 11, 2018.

The quantitative and qualitative potential of leading schools increases yearly. In 2020, jointly with regional education departments

and education departments of Nur-Sultan, Almaty, Shymkent, 392 leading schools were additionally identified in each district/city from among general educational schools as educational platforms to ensure effective interaction of teachers within professional teacher communities. There are 1412 leading schools in the country, which is 38% more than in 2019. The increase in the number of leading schools in particular regions (Nur-Sultan, Shymkent, Turkestan, Aktobe and Karaganda regions) is due to the decision of the education departments to approve this number for targeted long-term work with specific school teams.

By 2023, there will be 2000 leading schools. This will contribute to personalisation of the methodological support of general educational organisations in the regions.

The network of leading schools in Kazakhstan



Каждая ведущая школа проводит работу с партнерскими школами, территориально прикрепленными к ней. В целях наращивания методического потенциала новых ведущих школ Методическими центрами были разработаны и проведены серии вебинаров по вопросам взаимодействия ведущих школ с партнерскими школами, организации деятельности школьных координаторов по развитию межшкольного сообщества.

Each leading school works with partner schools in the neighbourhood. To build methodological capacity of new leading schools, the Methodological centres have developed and conducted a series of webinars on leading school-partner school interaction, organisation of the activity of school coordinators for interschool community development.

The work on post-course support, methodological support of teachers and NIS experience dissemination builds on the "vertical" scheme: **METHODOLOGICAL CENTRE - LEADING SCHOOL - PARTNER SCHOOL.**

**Interregional Forums of Leading Schools** have proven to be an effective form of work.

The idea of interregional forums initially held in the West Kazakhstan and Aktobe regions in 2017, was actively supported by all regions of Kazakhstan. So, 5 Interregional Forums of Leading Schools were held in 2020. The main purpose of these events was to discuss the results of the school community activity, to support the renewal of education content and to share successful school leadership practices.

Peculiar feature of the Forum “Leading School: Leadership and Professional Development” of leading schools in Kostanay, Akmola, North Kazakhstan regions was the participation of a large number of teachers from ungraded schools with specific work characteristics and needs. Network session “Leading school as a mechanism for solving the problems of ungraded schools in Kazakhstan” was organised at the Forum to consider the issues of teacher professional development in ungraded schools through joint work with leading schools. A website for leading schools developed by specialists from Kostanay region was presented at the forum. The leading schools use the website to learn about the work models of network communities, to share their professional experience.



At the Forum “Zhanaru Zharshysy-2020” held in Kyzylorda, Zhambyl, Turkestan regions particular attention was paid to online interaction of leading schools with partner schools during the period of distance learning. In the result of the work, schools of the regions working on similar methodological topics hold joint events.



The start-ups track was the “break-through” of the Forum held in Atyrau, Aktobe, West

Kazakhstan, Mangistau regions, it presented the project works “School-tandem”, “School-brand”, “Eco-school” and “School of craftsmen”. The leading schools of these regions were involved.

At the Forum held in Pavlodar, Karaganda, and East-Kazakhstan regions, participants actively interacted and shared experience in school management. The colleagues from Russia and Switzerland took part in the Forum.

The focus in the work of the Forum held in Nur-Sultan and Almaty was on the practice of school leaders, particularly, the management of pedagogical network communities was considered. Representatives of pedagogical community of Kazakhstan and Russia were invited as speakers.

Based on the results of the Forums, recommendations were developed and adopted to lay the basis for the 2020-2021 work plan with the leading schools of the region.

## 5.2. Nationwide experience dissemination Project «Rural school»

On 8 April, 2011, Yelbassy Nursultan Nazarbayev initiated the Intellectual schools to disseminate their experience to general educational schools. It is one of the NIS strategic activities.

On 2 September, 2019, when addressing the people in the context of “Constructive public dialogue - the basis of stability and prosperity of Kazakhstan”, President of Kazakhstan Kassym-Jomart Tokayev noted that the gap in secondary education between urban and rural schools was increasing. The main problem is a shortage of qualified teachers in rural areas. Quality education is a strategic factor in the development of national economy and safety.

International comparative research results indicate a large gap in the quality of education across Kazakhstani schools. Kazakhstan four times participated in the OECD international programme for 15 year-old student assessment in the context of PISA (2009, 2012, 2015, 2018) and international IEA research for school education in the context of reading, scientific and mathematical literacy (2007, 2011, 2015, 2019). The research results revealed a significant gap in academic performance of students across regions, areas (urban or rural), language of instruction and socioeconomic status of the family. The difference between

the PISA lowest and highest indicators across areas is 3 years of study. The current situation is not acceptable for a unitary state.

Therefore, a rural school plays a special role in every region. It contributes to the social and cultural development, of the area, determines its viability and future prospects.

A Kazakhstani school started its transformation from the implementation of the renewed content of education.

A rural school and the whole range of issues related to it starting from the particular features of the learning process and ending with the training of experts remain "a sore spot" in the education system. A lack of teachers, few subjects taught by one teacher at secondary and high school, low qualification of teachers, lack of facilities and resources, unfavourable social and economic conditions in rural areas are not a complete list of negative factors that complicate the work of rural schools.

The existing issues were the main reasons to initiate the Rural School Project. NIS analysed the learning and teaching process by studying the strengths and weaknesses, the needs of the rural school, provided recommendations to improve the quality of teaching and learning by observing lessons, monitoring students' academic performance, training and providing methodological support to teachers, as well as recommendations to improve school facilities and resources, development plans for 15 rural schools:

#### **Karagandy region**

1. Zhautykov School №1, Karkaralinsk, Karkaralinsk district
2. Yermekov School №2, Karkaralinsk, Karkaralinsk district
3. School №4, Koktas village, Karkaralinsk district
4. Madi Bapiuly School №44, Karkaralinsk, Karkaralinsk district
5. Nurinsk School, Mustafin village, Bukhar-Zhyrau district

#### **Kyzylorda region**

6. School №143, Zh.Makhambet village, Syrdarya district
7. Aitbayev School №132, Nagi Ilyassov village, Syrdarya district
8. School №164, Kuttykozha village, Zhanakorgan district

#### **East Kazakhstan region**

9. Seitkamzy Lastayev School, Katon-

Karagay village, Katon-Karagay district

10. Ulken Naryn School, Ulken Naryn village, Katon-Karagay district

11. R.Marsekov School, Kassym Kaisenov village, Ulan district

#### **Akmola region**

12. Gymnasium school, Makinsk, Bulandy district

#### **North Kazakhstan region**

13. Peterfield School, Peterfield village, Kyzylzhar district

#### **Zhambyl region**

14. N.Akshabayev School, Kyzyl Zhuldyz village, Baizak district

15. B.Bespayev School, Akbulym village, Zhambyl district

### **Project aims and objectives**

**To identify school strengths and weaknesses in three major areas:**

- teaching and learning,
- school climate,
- school infrastructure.

**To identify the major school needs:**

- teachers' professional development,
- facilities and resources.

**To develop recommendations to improve rural schools in terms of teaching and learning.**

### **RESEARCH**

NIS provided rural schools with research results on all aspects of teaching, learning and methodological activities.

School administrations were given recommendations for creating a modern educational environment at schools, improving school libraries and using them as additional educational platforms for students and teachers. Teachers got recommendations how to improve school practice, develop professionally, plan their activities and use digital resources.

**1. NIS studied teaching and learning processes in rural schools from the following perspectives:**

- study and analysis of the education quality within 5 years;
- teachers' professional needs and competencies;
- observation of 790 lessons delivered by subject teachers and provision of feedback and recommendations how to improve school practice;



- high-quality teachers (by qualification levels, age, experience, qualification categories, workload, advanced trainings and etc.);

- analysis of available facilities and resources;

- analysis of educational resources used in classes (digital educational resources, teaching and learning materials, electronic platforms and free online resources, educational activities of the school library and etc.);

- analysis of education management bodies and their activities;

- 447 classrooms and laboratories were explored and analysed;

- more than 1 500 trainings were delivered for rural school teachers.

**2. Analysis of school community well-being and climate.** NIS surveyed **838 (74,3%)** teachers, **1745 (19,6%)** Grade 8-11 students, **2 606** parents, **95** members of the Board of Trustees, and **63** members of school administration.

It also **interviewed 114** focus groups of parents, and **29** focus groups of teachers. In total, 2583 respondents of school communities were interviewed.

3. NIS studied in details the technical state of **447** classrooms: **44 school laboratories and 403 classrooms** in the context of available equipment and resources, and their compliance with the requirements of the State Compulsory Educational Standard and Sanitary rules and regulations.

**Thus, analysis of school practice has indicated that:**

1) within 5 years the quality of student knowledge has been low, especially, a significant decrease is observed during the transition from primary school to secondary school;

2) most teachers struggle with:

- planning lessons taking into consideration the needs and characteristics of students in a particular class using ready-made plans available on the Internet;

- stating learning objectives and expected outcomes;

- differentiating tasks in the learning process;

- using productive activities and developing critical thinking skills such as analysis, synthesis and evaluation;

- applying formative assessment forms and methods;

- feedback is given only by the teacher;
- the only available resource is textbooks;
- teacher works primarily with active students.

3) insufficient level of intra-school interaction in terms of professional development.

4) there is an obvious shortage of high-quality education: one in four parents rates it as “unsatisfactory” or “very bad”;

5) more than 80% of teachers highlight the need to develop professionally and master active learning methods, differentiated approach, functional literacy (functional reading, applied tasks), distance learning, ICT and etc.

**At the same time, the analysis has shown the following strengths:**

- at least 90% of teachers believe that a school supports students in need and positively assess the quality of mutual cooperation,

- 80% of students argue they can speak freely in the classroom and feel supported by teachers and class teachers (students and teachers positively assess their interaction in the learning process),

- school teachers are able to create a favourable and positive learning environment in school where the lack of digital and other resources do not affect the quality of learning in the classroom.

## METHODOLOGICAL SUPPORT

1. In 2020, NIS held **1680 methodological and practical consultations:**

- 210 webinars on teaching methodology and technology, and assessment;

- 110 seminars on subject content and distance learning;

- 41 trainings on criteria-based assessment system;

- 88 master classes;

- 326 online consultations on teacher’s difficulties (on request);

- 905 individual consultations based on lesson observation results.

2. As a result of monitoring, NIS gave recommendations in 14 areas of school activities:

- making school development plans,

- developing teachers’ professional skills,

- improving school infrastructure,

- transformation of the educational environment,

- creating school teams of teachers,

- preparing school trainers,
  - monitoring the quality of student knowledge,
  - organising additional education,
  - improving the format and content of collegial body activities, (*teacher's council, methodological council, expert council, mentorship (young teacher) schools, parent committee and Board of Trustees*)
  - distance learning and information literacy,
  - strengthening student well-being,
  - integrating school motivation systems,
  - organising physical activity breaks between lessons,
  - using free resources on websites and platforms.
3. NIS organised internships for subject teachers in NIS and leading schools of Kazakhstan.
4. Participation in collaborative research of school practice.
5. Creating subject communities.
6. Submitted 360 items of methodological guides and 90 copies of the Pedagogical Dialogue journal, №1, 2 - 2020

#### **NIS DEVELOPED THE FOLLOWING MATERIALS FOR RURAL SCHOOLS:**

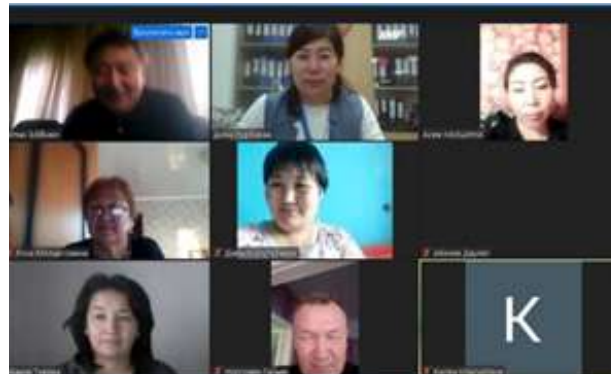
- list of equipment for classrooms, laboratories, workshops, and libraries (166 items),
- list of required literature for libraries (1 130 items);
- lists of links to free educational resources available online (134 items) for teachers and students.
- full report on research results for each school.

#### **NIS held the following activities in the context of assessment:**

- training course on “Development of criteria-based assessment tools”;
- training course on “Formative assessment in classroom”;
- monitoring of student academic performance in Grades 4 and 8.

NIS delivered training courses across subjects for 882 teachers from 14 rural schools in Akmola, East Kazakhstan, Kyzylorda, Karaganda, Zhambyl and North Kazakhstan regions. These courses were designed to develop teacher competencies and skills in designing and using assessment tools, applying effective formative assessment

methods to learning and teaching and give a constructive feedback to students. Rural school teachers showed a great activity and interest, received answers to questions relevant to their teaching practice, and noted the practical significance of the courses and methodological support of teachers working in remote areas.



Monitoring was conducted to assess academic performance of 621 students from 7 rural schools: 4 of them - in Karaganda region (Grade 4 - 175, Grade 8 - 129) and 3 - in Kyzylorda region (Grade 4 - 180, Grade 8 - 137).

The main purpose of monitoring is to identify the level of student knowledge and skills to provide targeted pedagogical support.

As part of the monitoring, NIS reviewed 220 test tasks and inspected schools.

Table. Monitoring structure

Grade	Subject	Number of tasks	Maximum score	Test duration
4	Mathematics	20	20	40 minutes
	Science and World understanding	20	20	40 minutes
	Kazakh / Russian (L1)	20	20	40 minutes
8	Mathematics	40	40	80 minutes
	Kazakh / Russian (L1)	20	20	40 minutes
	Kazakh / Russian Language and Literature (L2)	20	20	40 minutes
	English	20	20	40 minutes

The students' responses were statistically processed. Students and stakeholders were provided with:

- 2 125 individual detailed reports;
- 49 detailed reports across grades;
- overall monitoring results across schools.

### FIRST RESULTS

NIS Rural School Project provides opportunities for leaders and teachers of rural schools to create a platform for reducing the gap between urban and rural schools.

1. In general, the project outcomes are as follows:

- teachers' interest in the further implementation of the project;
- support of local Education Departments in teachers' professional development;
- teachers' active involvement in trainings in the context of the renewed content of education;
- useful methodological support;
- improving school practice in teaching and learning;
- improving school management and climate;
- positive changes in the educational environment;
- establishing cooperation with local and business communities.

### Lessons learned from distance learning experience:

- it expands the digital space,
- allows to cooperate and learn at interregional and international levels,
- develops ICT competencies of all

members of the educational process,

- has a free format and develops teacher's creativity,
- engages introverted students, shy students etc.,
- provides for individual approach and flexible learning schedule.

### Teachers indicate the following benefits of online education that might be used in traditional learning:

- it expands the scope of student and teacher project work.
- provides an opportunity to proceed the learning process during adverse weather conditions. Teachers can work individually with students.
- Opportunities to implement blended learning.
- Allows interacting with other schools and organisations. It helps build network communities.

2. A new form of teacher's practice in rural schools included the following activities:

- mutual lesson observation,
- providing professional feedback,
- approaches to collaborative lesson planning (vertical and horizontal),
- implementing active learning methods,
- using interactive technologies in the classroom,
- differentiated approach in the classroom,
- using modern educational resources,
- building school potential by organising the work of trainers,
- building professional communities and their promotion,

- teamwork,
- organising distance learning,
- developing ICT skills of teachers,
- various forms of teacher-parent

interaction in the context of distance learning

3. Kussainov S.K., Director of rural school №1, Karkaraly area, Karkaraly region, Karaganda region, published his article “Rural school - steps to success” in the Pedagogical dialogue journal and highlighted the first project steps:

- the project introduced modern trends to the school practice,
- systematic approach in school administration,
- teamwork approach in solving school issues,
- positive changes that have an effect on a positive mood of teachers, students and parents.

4. 1.17 bln KZT (48%) out of 2.45 bln KZT planned **were actually invested in the project including:**

- 6 schools (Classrooms of Engineering, ICT, Robotics, Art, and Cooking and library) were supplied with equipment for a total amount of 325 500 000 KZT,
- major and current repairs in 9 schools - 817 437 357 KZT

5. NIS expenses in amount of 6 153 220 KZT were refunded by small business and investors.

### LONG-TERM PLAN

1. To proceed with teacher training courses;

2. To deliver **500 methodological trainings;** *(mostly online: observing lessons and giving professional feedback, regularly consulting teachers on difficulties in teaching, delivering trainings on active learning methods, work with struggling students and students with special needs, reflection in teacher practice, ICT competencies, lesson planning, and student autonomy)*

3. To provide post-course support to teachers and consult them on requests (993 people, September-December 2010, January-April 2021);

4. Internships on the organisation of the educational process for school administration, science teachers and laboratory assistants; in total, 585 teachers will be trained.

5. To transform the school infrastructure and educational environment into effective learning platforms to motivate students to learn.

6. To additionally provide 270 items of teacher guides, 90 copies of the journal “Pedagogical dialogue”, №3, 4 2020

### PROJECT «ONLINE MEKTEP»

In June 2020, NIS with Bilim Media Group LLP, an innovative digital education company, launched a project to develop digital content for Online Mektep, online educational platform, designed for general educational school students.

The key objectives of this project are to ensure equal access to quality education for each student, the possibility to build a trajectory of individual development and monitor learning progress.

Online Mektep includes digital educational content for all subjects in Grades 1-11 according to the Standard course plans for primary, basic secondary and general secondary education.

Theoretical material was developed for each lesson to include an outline, , diagrams, mind maps, etc.. The practical part of the lesson is presented in the form of level tasks: 9 tasks for primary school and 18 tasks for basic and secondary schools. Three-level tasks (A-basic, B-advanced, C-high) allows for the consistent and systematic development of skills essential for **functional literacy development.**

The website gives detailed information on the levelled lesson management system. Each lesson was designed to be **task based learning.** A student completing a task of a certain level gets involved in the active learning process. Each task includes such features as ‘It’s important to know’ and ‘Explanation’ given in the theoretical materials that help a student solidify his knowledge and complete the task.

Taking into consideration a difference in levels of material absorption and study rate, a student has an opportunity to learn the materials individually on the platform. It makes possible to qualitatively consolidate the material and build an individual learning plan.

More than **500 teachers** of the Intellectual and general educational schools are involved in Online Mektep. **24 074** lessons were developed



for Terms 1-4, Grades 1-11. Since 2020, NIS has developed **18 406** lessons. The work is still in process.

The online platform has been available for general educational school students since September 1, 2020. At the moment, there are **3 594** schools involved in Online Mektep. The total number of visits since September 1 is **2 390 000 000**.

### «NIS-PROGRAMME IMPLEMENTATION AND SUPPORT» " PROJECT IN PRIMARY SCHOOL OF AKBObEK RC

According to the NIS 2030 Development Strategy, NIS-Programme will be introduced to general educational schools to improve the quality of education in Kazakhstan.

To implement NIS-Programme, a school-candidate should go through three stages: consideration, preparation and piloting.

At the moment, the programme has been introduced to primary school of Aqbobek International School LLP, Aktobe (hereinafter - AIS).

From August to December, 2020, CEP delivered **16** trainings on NIS-Programme, conducted monitoring and has been giving methodological support to teachers online.

### Online training workshops on NIS-Programme

The training workshops aimed at developing teachers' understanding of the Primary NIS-Programme; skills of designing lessons focused on the learning objectives, development of reading and mathematical literacy; skills of applying active teaching methods in classroom and skills of organising various forms of learning.



Figure. Number of trained AIS teachers in Aktobe

Introductory training workshops were delivered on Kazakh language and literature (L1), Russian language and literature (L1), World Understanding, Mathematics, Kazakh (L2), Russian (L2), English, ICT, Art, Physical Education and in Trilingual education.

Workshop participants received electronic versions of materials, presentations and handouts.

### On-site subject training workshops

The second stage of on-site trainings was held from August 27 to 28, 2020. The trainings were designed to develop teachers' knowledge and skills to integrate primary school subjects through cross-curricular topics and by developing students' reading and mathematical literacy.

To strengthen the partnership with AIS, the CEP employees prepared an exhibition of primary subject programmes, course plans and teaching aids developed according to NIS-Programme. All the materials were donated to the partner school free of charge.





*Trainings and subject programmes*

### Methodological support online

To provide continuous methodological support to AIS primary teachers in implementing NIS-Programme, CEP created 9 teams for primary subjects and trilingual education in Microsoft Teams.

CEP specialists uploaded videos explaining the learning objectives on all primary subjects; provided guidelines; a complete set of teaching materials (presentations, worksheets, videos, SA tasks for the unit and other materials) for weekly lesson preparation; methodological recommendations for formative and summative assessment, on distance learning; training materials on lesson planning and delivery.

### Consulting school teachers

Within the online support process, CEP specialists organised 35 meetings with AIS teachers to provide advice and exchange experience. The specialists addressed challenges of developing assessment criteria

and descriptors based on learning objectives of the subject programme; methods of achieving learning objectives through activities; features of developing SA for the unit and the term; time management principles. At the request of teachers and school administration, CEP specialists uploaded additional materials and calendar and topic plans for subjects, to the school's network resources.

### Monitoring school visit

In December 2020, CEP conducted the first monitoring visit to AIS Aktobe.

The purpose of the visit was to monitor the implementation of NIS-Programme in Grades 1-3 and to provide methodological support to primary school teachers. During the monitoring, the CEP team observed **74** lessons, talked to school administration, Grade 1-3 teachers and students; conducted the content analysis of **102** workbooks of students; delivered **19 master** classes for primary school teachers.

The monitoring allowed identifying organisational and methodological challenges, such as poor understanding of NIS-Programme by teachers; non-systemic use of differentiation, active teaching methods and inquiry-based approach in classroom; age-inappropriateness of learning materials. As a result of the monitoring, the CEP team delivered master classes on developing lesson objectives based on learning objectives of the subject programme; the use of differentiation in the classroom, developing tasks to develop student research, analytical and interpretation skills; and the use of communicative approach.

The team of specialists noted the openness and willingness of teachers to improve teaching practices, the curiosity and desire of students to acquire new knowledge, which is an incentive for teachers. The visit identified further ways to improve the implementation of NIS-Programme.

CPM delivered trainings to provide methodological support to teachers in the context of the assessment system and procedures:

1. "Criteria-based approach in assessment" online in the Kazakh and Russian languages in Microsoft Teams.

2. "Development and evaluation of assessment tools" in Akbobek RC, Aktobe.





the most remote regions of Karaganda region including rural multigraded schools. The project involves the leading trainers of CoE and its branches in Karaganda. CoE trainers provided methodological support through webinars and consultations. The activities carried out by Centre of Excellence are intended to satisfy educational needs of teachers to master new learning forms, teaching and educating methods and to get them ready for working in the context of distance learning.

Within a joint project with Kazakhmys Corporation LLP from August to December, 2020, CoE delivered 67 training workshops and webinars completed by 1522 teachers. Webinars primarily focused on informational platforms that teachers can use to effectively teach students and plan lessons in the context of distance learning, Google tools and etc. To get methodological support in criteria-based assessment, 359 teachers from Zhezkazgan, Balkhash, Satpayev, and Ulytau districts attended NIS Vacation School.

The project will last until July, 2021.

**3. 810 summative assessment tasks** were evaluated in the context of Terms 1 and 2 across such subjects as: Kazakh language and literature (L1), Kazakh (L2), Russian (L1), Russian (L2), Mathematics, English, World Understanding, Computer Science, Art, Science, and Introduction to Science.

CPM experts provided methodological support to teachers online on how to assess student performance against criteria. They also considered teachers' questions related to the development and evaluation of assessment tools, assessment of student performance in the context of the distance learning and language subjects and etc.

### **NIS and Kazakhmys Corporation Project**

Since August, 2020, NIS has been developing professional skills of general educational school teachers from Zhezkazgan, Balkhash, Satpayev and Ulytau districts as part of the memorandum of cooperation between NIS AEO and Kazakhmys Corporation LLP.

This project aims to improve a teaching qualification and give methodological support to teachers to ensure quality education in these regions. The project helped to cover





# **INTERNATIONAL COOPERATION**

One of strategically important objectives of NIS is to integrate into the world community and introduce the NIS education system internationally.

NIS AEO is:

- the national coordinator of the OECD global “Education 2030: Future of Education and Skills” project.
- the national coordinator of the World Robot Olympiad (WRO).
- the national coordinator of the World Association of Lesson Studies (WALIS).

Expanding the scope of NIS activities in experience dissemination will contribute to the image and bring political benefits such as participation in the subregional level of Central Asia and Russia, cooperation with the European Union, World Bank and the UN representative offices in Kazakhstan and Pacific region (UNESCO, UNICEF, UNFPA, etc.)

NIS AEO implements a number of international projects to improve the performance indicators. NIS will diversify the economic effect of this activity by sources of income and funding.

### **Cooperation with the EU within the project “Support to the Education Sector in Turkmenistan”**

The EU new strategy in the context of Central Asia aims to contribute to sustainability of domestic and global growth and to increase the capacity for effective transformation.

The European Union considers investing in people as a prerequisite for solving the issues of the Fourth Industrial Revolution and gaining professional qualification in the 21st century.

Education is one of the main areas of cooperation between Kazakhstan and the European Union. Kazakhstan is one of the world top 10 countries in the field of education system modernisation. As part of this success NIS demonstrates a long-term commitment to investing in people.

Kazakhstan has a long-term experience in combining local context and the world best practice and research. As expected, NIS came up with a competitive proposal for Turkmenistan as part of the EU Project.



In 2018, NIS and the European Union signed a memorandum of understanding in education in the context of the project “Support to the Education Sector in Turkmenistan”. The project was implemented by a consortium of companies from Greece, Germany, Great Britain and Latvia within the framework of the European Union target programme. The project aims to help Turkmenistan create an innovative education model that would meet international standards.

NIS implemented the EU Project in Turkmenistan on an agreed basis by integrating the best national and international experience and significant scientific achievements in secondary education.



In 2020, NIS delivered three 5-day trainings offline to introduce Turkmenistani teachers to modern approaches to lesson planning, observation and reflection. During the training, teachers identified the algorithms for effective lesson planning using relevant tools and new teaching approaches; developed observation and reflection tools; identified the basic principles of an effective feedback.

From March 3 to May 21, 2020, CoE experts and trainers developed a training on “Information

and communication technologies in education” jointly with education experts from Greece and Turkmenistan. Due to the epidemiological situation in the world and lockdown measures, a number of activities were held online: daily team meetings, webinars and joint development of resources.

Upon completion of the project, an external expert from Kazakhstan reviewed the training programme and highly evaluated the NIS education product.

From May to September 2020, CoE expert and trainer provided support in the development of training programme “Effective lesson: planning, observation and reflection” to further train teachers from Turkmenistan. Online collaboration included the development of materials, delivery of training and uploading training materials and programme on the Moodle platform.

In 2020, 173 education specialists of Turkmenistan were trained. All training participants received certificates.

### **NIS and Yugra (Khanty-Mansi Autonomous Okrug, Russia) Project**

From November to December 2020, NIS delivered online course “Effective learning and teaching” to 450 educators from Yugra, Khanty-Mansi Autonomous Okrug, Russia, developed on the basis of the educational programme for professional development in teaching methods and technology. The programme was certified by the Accreditation, Certification and Quality Assurance Institute (Germany).

The course programme aims to improve teachers’ qualification to implement effective teaching and learning and gives an idea of the pedagogical effectiveness in the context of the major teacher activities: organisation of the learning process; lesson planning and analysis; evaluation of student performance.

18 certified trainers and tutors of CoE delivered trainings on the CoE platform [www.sdo.cpm.kz](http://www.sdo.cpm.kz) and webinars on ZOOM.

In total, trainers held 20 webinars and consultations (individual and group) within 40 hours.

One of the NIS initiatives was International research-to-practice online conference on “Crisis management in education: new experience and practice” (Nur-Sultan, Uralsk and Almaty). The conference was held in cooperation with

the Academy of Public Service under the Administration of the President of Kazakhstan. Among the speakers of the Conference, there were managers, scientists and practitioners from 8 countries: Kazakhstan, Belarus, Ukraine, Russia, Armenia, Singapore, Poland and Kyrgyzstan.



Leaders and managers of educational organisations attended the conference: schools, colleges, universities, and leadership training centres. The conference discussed current management and education issues, shared diverse and interesting experience in effective crisis management, raised leadership and teamwork issues in educational institutions in the context of modern conditions and reported on the ecological management of professional environment.

### **«Educational Tourism » Project**





In 2020, the second on-site training on “Lesson study: experience of Japanese schools” (Tokio) to promote Lesson Study Kazakhstan was held as part of the international Educational Tourism Project. This educational tour aimed to explore Japanese Lesson Study. The tour participants attended the trainings delivered in the Ministry of Education by leading Japanese experts in Lesson Study of the National Institute for Educational Research and Azabu Institute of Education. They had an opportunity to see their colleagues discussing lessons delivered in Inaridai primary school and Kamitabashi secondary school. Their colleagues are teachers of different schools in Tokyo as Kamitabashi is an expert in Lesson Study.

The tour participants had an opportunity to learn about Lesson Study and how to use this approach in an authentic environment, enhance their knowledge and improve lesson observation skills.

### World Bank Project «Education modernisation: improving student assessment in secondary education of Kazakhstan»

The Ministry of Education and Science of Kazakhstan implements reforms to develop a modern external assessment system (UNT and EASP) in the context of the Education Modernisation Project (hereinafter – Project) supported by the World Bank.

The project aims to improve the quality of secondary education, its accessibility and equity.

A wide range of stakeholders (teachers, school administration, rural and multigraded school teachers, students with special needs, schools with low academic performance, universities training educators) will benefit from the Project. This significantly raises social expectations of the Project.

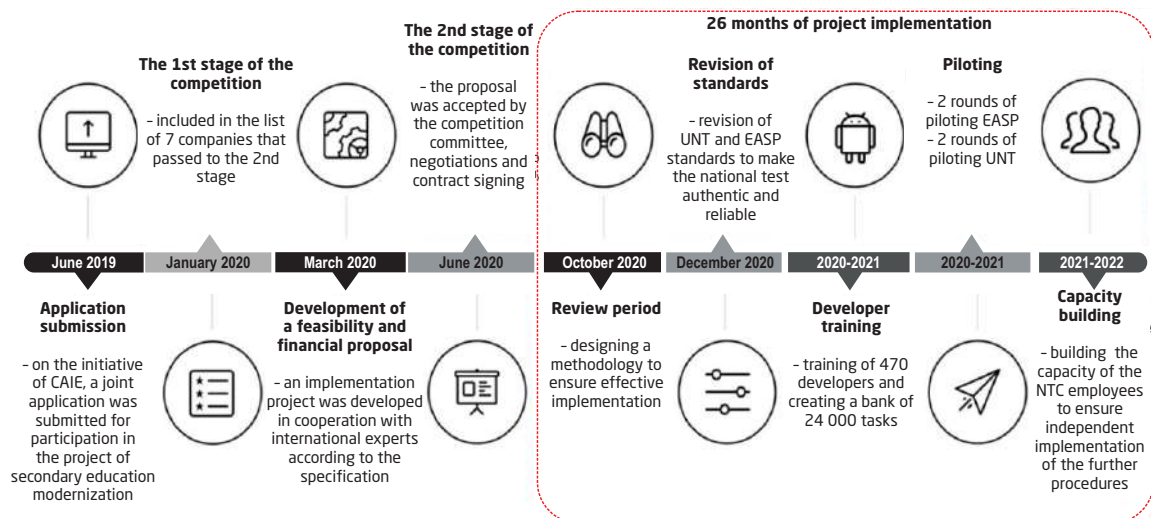


Figure. Timeline of key project events

Cambridge International Assessment and NIS Centre for Pedagogical Measurements entered into a consortium that determines their partnership in the project. Among the applicants along with the consortium were such companies as CT Inc. (USA), Cito BV (the Netherlands), American Institute for Research (USA), School-to-School International (USA), Astana School of Business and Technology (Kazakhstan) jointly with EduCon (Kazakhstan) и Docetis International (UK).

Considerable work was carried out to get all documents (technical and financial) ready for application. Applicants also made presentations about consortium activities and structures, their experience in teaching and assessment, vision, methodology and approaches to improving assessment, detailed work plans, and introduced a qualified team of national and international experts. Finally, the World Bank Competition Commission selected Cambridge Assessment International Education and CPM out of all technical proposals submitted.



The project will be implemented within 26 months and assumes the following outcomes:

- analysis of the current assessment system;
- updating EASP standards;
- updating UNT standards;
- training at least 470 test developers;
- compiling tests for EASP and UNT (at least 24 000) and piloting them twice;
- developing test administration guidance;
- training at least 40 NTC specialists (coordinators, IT-specialists, statisticians and etc.);
- improving an IT-platform to manage test data and procedures;
- meeting special education needs for assessment.

**Centre for Educational Programmes coordinates NIS work on the OECD international platform.**

- Participation in the development of the conceptual framework within the project “Education 2030: The Future of Education and Skills”
- Conducting a comparative analysis of the renewed subject programmes of Kazakhstan
- Participation in the working groups of the OECD Project and Global forums including NIS students
- 5 videos of NIS students and teachers were published on the official website of the OECD project <http://www.oecd.org/education/2030-project>
- In 2020, a video of NIS teacher was selected as a sample of online learning reflection practice within the Global Teaching Insights [https://www.globalteachinginsights.org/media/Aliya+from+Kazakhstan/1\\_33kd4969/186022973](https://www.globalteachinginsights.org/media/Aliya+from+Kazakhstan/1_33kd4969/186022973)

## CONCLUSION

NIS experience dissemination is a new stage in the development of education. The transition to the renewed content of education imposes new requirements for teachers in the context of competence-based approach and readiness to work in the context of increased personalised learning. In the future, NIS plans the following activities within the memorandum of mutual understanding:

1. to create a network of 2 000 leading schools by 2023 (agents of innovative teaching methods and technologies, and centres of the best teaching practice). These schools will help build communities among school leaders, primary school teachers, and subject teachers who will promote innovations in education jointly with NIS AEO. to develop the potential of 2000 leading schools without further increasing their number that will enable to personalize methodological support for partner schools;

2. to create 10 "model leading schools" in each regional centre as platforms for delivering trainings and seminars on a regular basis and

implementing innovative teaching techniques and approaches, and effective school practices;

3. massive open online courses help to promote NIS in the international arena. In 2021, it is planned to launch massive open online courses on Coursera, EdX and etc. Experience in the MOOC development and launch indicated that a high-quality content might be represented in a "convenient" format and reach as many students as possible;

4. to increase the practical focus of online courses by including some elements of micro-teaching and peer observation in 2021;

5. to share experience derived in the context of the Rural School Project with other regions (at the request);

6. to strengthen collaboration with Y. Altynsarin National Academy of Education on cooperation with pedagogical universities and colleges in the context of the implementing the renewed subject programmes and improving the teaching practice.

Сдано в набор 19.05.2021. Подписано в печать 22.06.2021  
Формат 84х108/16. Офисная бумага 80 г/м<sup>2</sup>. Печать цифровая.  
Усл. печ. л. 3,78. Тираж --- экз. Заказ №---

Отпечатано в типографии ЧУ «Центр педагогического мастерства»  
e-mail: [info@cpm.kz](mailto:info@cpm.kz), тел.: +7 (7172) 23-57-49

