

Project effectiveness «Leading Schools»

*Department of Experience Translation AEO «Nazarbayev Intellectual Schools»
Republic of Kazakhstan, Nur-Sultan city,
24th of November 2019*

WORLDWIDE TRENDS IN THE FIELD OF REFORMING SECONDARY EDUCATION AND DISSEMINATION OF NEW EDUCATIONAL TECHNOLOGIES



GLOBALISATION

What are the new requirements related to the changes in social and economic life have arisen in the educational system and will be provided by the 21st century school?



PUBLIC PARTICIPATION

to anticipate the future needs of students public participation in addressing these issues is needed.



ACCREDITATION, AUTHORIZATION AND INSPECTION

How to verify desired results? Good tests that test linguistic and mathematical literacy are not enough.



EQUALITY

- is a common challenge and a common concern. How to achieve the high level in the system and at the same time not to face with limitations in achievements? How to provide different paths to success for different groups of students?



LEADERSHIP

All school systems face the challenge of providing 21st century education. How can they achieve a higher level of teaching and management? Create a critical mass of innovative schools (Teaching schools)

NEW TECHNOLOGIES CHANGE LANDSCAPE OF FUTURE PROFESSIONS



By 2025, **46%** of global economy will be in the digital environment, today this figure is 10%.

65% of children who are currently studying in primary school will be occupied in new types of job that even do not exist nowadays.



According to the research carried out by the University of Oxford in developed economies, the rate of job loss will rise to **47 percent in the next 25 years**.



For instance, by **2030** robots will be able to replace **1,3 million state employees** in the United Kingdom.


Estimates of City and Oxford universities show that **77%** of jobs in China are at the automation risk, among OECD countries the percentage is **57**.

University of Oxford and Deloitte LLP, 2014; Skolkovo, 2015; World Economic Forum, 2016
<http://www.businessinsider.com/bt-hsbc-gavin-patterson-stuart-gulliver-technology-changing-jobs-market-fourth-industrial-revolution-2016-10>




Experience translation AEO NIS


Developed by AEO «Nazarbayev Intellectual Schools»




Educational Content:
3 Standards
163 educational programs
364 medium term plans for grades 1-10
93 teaching aids for the implementation of training programs
157 textbooks and teaching materials
290 digital educational resources




New criteria-based system of evaluation:
30 125 instruments of criteria-based assessment
711 assessment tools



Professional development training:
153 advanced training programs;
 Assessment courses training manuals



Trained on professional development trainings:
314 775 teachers on subject content and grading system
73 322 teachers on teaching methods and technologies
38 596 school trainers on methodology and technology, research skills
5 575 certified trainers
6 161 school principals in leadership

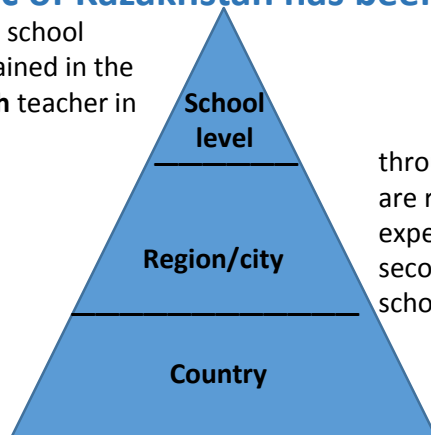


Held:

8 087 teaching seminars;	904 on-site consultation;
12 042 master-classes;	1956 team teaching lessons;
4 755 training courses;	4 311 lesson observations;
3 085 online lessons;	144 lectures for parents
383 online seminars;	

A republican network of methodological support for teachers of the Republic of Kazakhstan has been established

through a pool of school trainers and school coordinators (**38 596** people were trained in the Republic of Kazakhstan, or every **10th** teacher in the country)

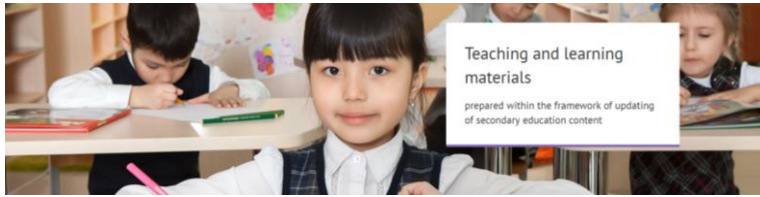


through the introduction of online educational platform **System-methodological complex**

through a network of leading schools, which are reference sites for the translation of experience (in Kazakhstan there are **1020** secondary schools, or every **7th** active school in the country)

Total schools in RK	Reference sites for supporting updated educational content			Attached schools in a region/city
	Intellectual schools	Pilot schools for approbation	Leading schools	
7 047	20	30	1 020	5 977

Support for teachers in the country through a system-methodological complex



45 605 materials were developed under the programs for 1- 10 grades for all subjects in 2 languages



Documents to use in work process: SGSPE, curriculum samples, educational programs and plans, Structurally Methodical Writing

1540



Job-based planning: lesson planning, presentations, formative assessment, handouts and audio and video materials.

132 538



Curriculum samples: electronic versions of textbooks, activity books, teacher manuals, posters for speech development, digital educational resources

602



Methodological recommendations for the curricula implementation of language disciplines, video on implementation of curricula for 1,2, 3,5,7, 8 grades

349



Debate platform: Teachers are given the opportunity to conduct discussions, receive consultations in certain areas, post feedback and suggestions.

4316



494 videos were developed to explain the learning objectives of grades 1, 2, 3, 5, 6, 7, 8

Since 2018, a media library of educational resources has been created and is being updated in the subjects of **«Biology», «Chemistry», «Physics», «Informatics»** in English - **674**

Blog for sharing experience of AEO "Nazarbayev Intellectual Schools" includes news and statistical data on sharing experience of AEO "Nazarbayev Intellectual Schools"

Documents to use in work process
contain State Compulsory Standard of education, standard course, plan subject programs and medium-term plans

Lesson planning
contains developments of lessons by subjects, presentations, formative assessment, audio/video and didactic materials, developed in accordance with subject programs of Nazarbayev Intellectual Schools

Criteria-based assessment system
contains handbooks on criteria-based assessment, set of formative assessment tasks, video and presentation resources

Online lessons and seminars
contain online lessons and seminars

Textbook series
contain the electronic versions of textbooks, workbooks, teachers handbooks, teaching materials and masterclasses on the achievement of aims of educating

Guidelines
contains methodological recommendations for implementation of the language disciplines curricula

Debate platform
On-line forum for consulting discussions, placing of feedbacks and suggestions.

Digital Educational Resources
Presented in the form of static and dynamic models, which can contain graphical, digital, 3D, verbal, musical, video, photo and other information aimed to solve the set of educational goals and objectives in the framework of updating the content of secondary education in the Republic of Kazakhstan.

36 124 141
downloads

281 722
authorized users

Mechanisms of methodological support for teachers in updated educational content

country

through educational online platform **SMC**:

- System-Methodological Complex**
- **138 826** uploaded teaching materials and resources,
 - **37 800 015** downloads
 - **292 443** users

region/town

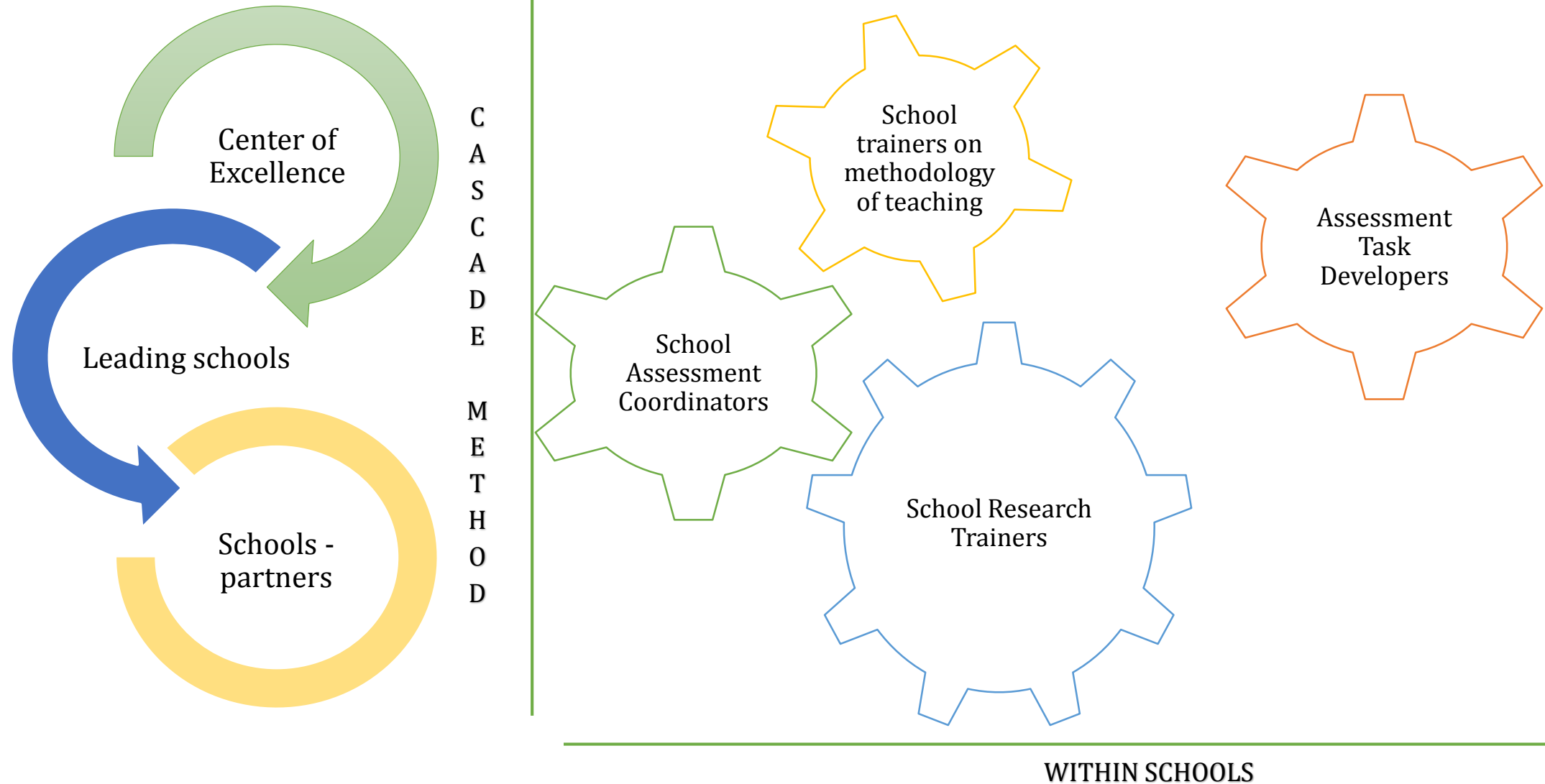
Chain of LEADING SCHOOLS,
1020 schools – being as reference sites in experience
disseminating (or each **7th** school in the country)

school

SCHOOL METHODOICAL ASSET
school trainers and coordinators

(**38 596** people were trained in the Republic of Kazakhstan, or every **10th** teacher in the country)

Developing the potential of schools in the teachers' professional development



Support for teachers through the school methodological asset

Total schools in the RK	Total prepared school trainers	Including pathway			
		School coordinators on criterion assessment	School trainers on teaching methods and technologies	School research trainers	School assignments developers and experts on assessment
7 014	38 596	9 043	17 517	3 526	8 510

conducts in-school courses under the program "Reflection in Practice", provides advice on teaching methods

provides advice on issues related to formative and summative assessment procedures

conducts in-school courses under the program "Research in teacher's practice", organizes the implementation of Lesson studies and Action research

provides methodological assistance for teachers in the development and examination of tasks for formative and summative assessment in 10 subjects

Chain of leading schools– reference sites for updating educational content

Methodological centers for updating the content of education

Nazarbayev Intellectual Schools

Methodological work with teachers of the Republic of Kazakhstan through seminars, master classes, webinars.

Center of Excellence

Methodological work with methodological asset of each school of the Republic of Kazakhstan (through the pool of school trainers and school coordinators)

30 pilot schools

Nur-Sultan city 1	Almaty city 1	Aktobe region 2	Akmola region 2	Almaty region 2
Atyrau region 2	East Kazakhstan 2	Zhambyl region 2	West Kazakhstan 2	Karagandy region 2
Kostanay region 2	Kyzylorda region 2	Mangystau region 2	Pavlodar region 2	North Kazakhstan 2
		Turkestan region 2		

1020 leading schools

Nur-Sultan city 24	Almaty city 23	Shymkent city 17	Aktobe region 76	Akmola region 86	Almaty region 100
Atyrau region 28	East Kazakhstan 95	Zhambyl region 44	West Kazakhstan 91	Karagandy region 52	Kostanay region 66
Kyzylorda region 66	Mangystau region 36	Pavlodar 26	North Kazakhstan 82	Turkestan region 118	

5 994 partner schools

Teachers' assistance through leading schools

Goal: building up the methodological potential of the teaching staff of leading schools to create an effective quality management mechanism for introducing updated educational content.

Organizational and analytical stage

Identification of the methodological potential of the leading school staff through questionnaires and surveys, visits to in-school methodological events, analysis of the school's development plan, joint recruitment of the development team (leaders)

Stage of training and development of a leading school

School Administration Training

Training of the development team (leaders)

Training of all school teachers

Equipping with methodological resources

Stage of interaction between leading and partner schools

Conducting group and individual trainings (seminars, master classes, lesson observations) at the request of pilot school teachers

Studies of the professional potential of leading and partner schools of the Republic of Kazakhstan

Periods: I stage of research: 26 April -12 May 2018

II stage of research: 11 March – 12 April 2019



Study Sample Size:

I stage (with leading schools):

6 198 respondents were interviewed, including

- 763 leading schools' principals;
- 5 435 leading schools' teachers

II stage (with partner schools):

8 511 respondents were interviewed, including

- 1 867 partner schools' principals
- 6 644 partner schools' teachers

Research focus:

- culture, management and school management; dynamics of their development;
- professional beliefs and values of leaders and teachers of leading and partner schools, their problems and needs;
- degree of satisfaction with the results of interaction between leading schools and partner schools; the nature and degree of stability of the dynamics of the ongoing qualitative and quantitative transformations in leading and partner schools

The results of the first study are published in collections:

- *International Conference "Modern Problems of Science and Education" (2018, Moscow);*
- *"Modern science technology" Collection of scientific articles of the Russian Academy of Natural Sciences (2018, Moscow)*
- *"Reports of the Kazakh Academy of Education" NGO of scientists and teachers of the Republic of Kazakhstan (№4, 2018, Astana);*
- *X International scientific-practical conference "School of the new generation" (2018, Astana).*

According to the results of two surveys of partner and leading schools leaders, the qualitative changes in partner schools should be noted

- **72.0%** claim that with the support of leading schools, leadership groups of teachers were created to manage school development, criteria-based assessment, lesson research and mentoring with novice teachers who provide timely and targeted methodological support to groups;
- **over 55.0%** of leaders say that schools have been enriched with methodological resources and the annual improvement in the quality of education is due to the use of new forms and methods of instruction;
- **more than 51.0%** of principals changed the teaching practice as a whole, learned medium-term planning, self-reflection and problem solving for conducting research on their own practice; learned to develop descriptors and criteria for student learning success, set specific expected results, systematically use active forms and teaching methods.

Quantitative indicators of changes in partner schools based on two monitoring studies

Study performance criteria	The average indicator of two studies
Percentage of managers who have acquired knowledge and skills in the field of school management and leadership	48,7
Percentage of managers who understand the essence of distributed leadership and learn how to put it into practice	39,3
Percentage of schools that have learned to develop a school development plan	61,9
Percentage of schools that have learned to develop criteria for successful school development	49,4
The proportion of leaders who have learned to conduct research on teaching practices and who are now able to teach their school teachers	46,0
Percentage of schools where lesson study groups are established	57,5
Proportion of schools in which parental participation in school development planning has increased	49,7
Percentage of leaders who have changed the way they interact with students and their parents	48,3
The proportion of principals who began to devote more time to the professional development of school teachers	46,6
The proportion of leaders who have learned to develop a path for the professional development of school teachers	55,5

Positive changes in the practice of secondary schools of the Republic of Kazakhstan

Leading schools



Partner schools

school management changed: the prevalence of administrative and administrative issues decreased from 75% to 25% and focused on addressing the issues of teaching quality and professional development of teachers

more than 97% of leading school teachers are convinced that the quality of the organization and conducting methodological trainings has improved and they have a positive effect on their teaching practice

in 97% of leading schools, the practice of collaborative management, distributed leadership, teacher commitment to the interests and success of the school, systemic planning, monthly and weekly visits and supervision of teachers' lessons by leaders was established

over 73% say that the content of training activities at partner schools is determined on the basis of analysis of the survey results of pilot schools teachers, adjust with real needs and therefore have a high level of effectiveness

More than 41.0% of teachers, as a result of interaction with Leading schools, changed the teaching practice as a whole, learned self-analysis and problem solving for conducting their own practice studies, developed skills in developing descriptors and criteria for the success of student learning, setting specific expected results, systemic use of active forms in the lesson and teaching methods

72.0% of teachers confirms that with the support of leading schools in Partner schools leadership groups were created to manage school development, to introduce criteria-based assessment, to study the lesson and mentoring with novice teachers, which contributes to the timely and targeted provision of methodological support to PS teams

Conclusions: The results of monitoring studies showed that

Nazarbayev
Intellectual
Schools



the creation of this mechanism is objectively justified, since it contributed to the qualitative and quantitative transformations, both in leading and partner schools.

Nazarbayev
Intellectual
Schools



NIS

THANK YOU FOR YOUR ATTENTION!

<http://www.nis.edu.kz/>