

VIII International Research-to-Practice Conference

'Taking Change to Scale in Education: Piloting and Dissesmination'

27-28 October 2016





KULYASH SHAMSHIDINOVA

Chairperson, Nazarbayev Intellectual Schools AEO



Dear Conference Guest,

I am delighted to welcome you to the NIS International Research-to-Practice Conference.

The conference is being held for the eighth time, and is for all those who care about our future: teachers, academics, practitioners, policymakers, and local and international educational researchers.

Hosting the conference has become a tradition, which serves as a platform for the exchange of experiences, opinions and opportunities for the development of education in the context of worldwide globalization.

This year, the theme of the conference is 'Taking Change to Scale in Education: Piloting and Dissemination'. Particular attention is given to effective dialogue between teachers, researchers, the public at large, and policymakers responsible for the piloting and dissemination of the NIS experience to the system of education of Kazakhstan as a whole. We should unite our efforts and communicate with each other more in order to develop cooperation and to find new solutions to problems in our fast-changing world. Every participant in the process of disseminating the NIS experience, from schoolteachers up to the Minister of Education should be engaged and focused on the goal of reforming our national system of education.

The learning process at Nazarbayev Intellectual Schools is constantly being improved. In May 2016, NIS was selected to be the National Coordinator for the OECD Education 2030 project. This is one of the factors helping the Conference become a platform for the active discussion of the NIS experience, and helping it serve the development of the system of education in the country as a whole.

We would like to express our respect and gratitude to the academics and researchers who are joining us for this year's conference from the following organisations: University of Cambridge, Michigan State University, University of Pennsylvania, University College London, Arizona State University, OECD, Skolkovo, Moscow State University, Ayb School, Pasco, and Education.com. We also extend a hand of welcome to our strategic partners: CiTO, Johns Hopkins University Center for Talented Youth, Cambridge International Examinations, Council of International Schools, Cambridge University Press; and to all those who will share cutting-edge ideas in global educational policy, and inspire our educationalists to find innovative solutions to problems in education. We thank everyone for their support and are grateful for the new friendships we will make and collaborations we will form over the course of the conference.

This year, the conference will feature a plenary session dedicated to the 25th anniversary of Kazakhstan's independent system of education, in which experts in the field of education will conduct a retrospective discussion on the question of the development of the Kazakhstani system of education.

Given the importance of this conference as one of the biggest stimuli for the development of the national system of education, and likewise for raising the profile of Kazakhstan on the international stage, and we invite everyone to be an active participant in the breakout sessions and panel discussions, sharing your perspective and the results of your research.

But most importantly, we believe, by preserving Kazakhstani traditions using international best practice, and implementing new approaches in positive dialogue with our partners, we can help our kids become educated, motivated and ready for the demands of this new age.



CONFERENCES

NAZARBAYEV INTELLECTUAL SCHOOLS AEO



International Research-to-Practice Conference 'Taking Change to Scale in Education: Piloting and Dissemination' 27-28 October 2016



International Research-to-Practice Conference 'Education: Research and Sustainable Development' 22-23 October 2015



International Research-to-Practice Conference 'Education Policy, Practice and Research' 23-24 October 2014



International Research-to-Practice Conference 'Excellence and Leadership in Education' 3-15 November 2013



International Research-to-Practice Conference Professional Development of Teachers' 4-5 December 2012



International Research-to-Practice Conference 'School Leadership and Excellence' 15-16 November 2012



International Research-to-Practice Conference 'Teacher Professional Development: Traditions and Changes' 6 December 2011

FORMAT OF THE CONFERENCE



















THE TWENTY-FIFTH ANNIVERSARY OF KAZAKHSTAN'S INDEPENDENT SYSTEM OF EDUCATION

On the eve of the twenty-fifth anniversary of independence for the Republic of Kazakhstan, as a separate plenary session, you will have the chance to hear the perspectives and memories of active participants in the creation of the country's system of education. **Kulyash Shamshidinova**, Chairperson of Nazarbayev Intellectual Schools will moderate the session, and in her own presentation will talk about the role of NIS in reforming the country's system of education.

The Director of the Department of Preschool, Primary and Secondary Education, **Zhanyl Zhantayeva**, will focus on the importance of giving equal opportunity of access to a high-quality education to every citizen of Kazakhstan.

Abdraim Bakhytzhan, a member of the Committee on Legal and Judicial Reform of the Kazakhstan Parliament, will discuss how legislation can support equality of opportunity in education.

Shamsha Berkimbayeva, a fellow of the International Academy of Pedagogical Sciences, Russia, and Minister of Education of the Republic of Kazakhstan (2002-03) will provide a retrospective on the establishment of comprehensive schools and reforms to the system of education.

For background on the development of Nazarbayev University, which is becoming the national brand leader in higher education, combining national and international best practice, we turn to **Shigeo Katsu**, the President of Nazarbayev University.

The presentation of **Ayakul Mirazova**, a Hero of Kazakh Labor, will focus on the implementation of the *Mangilik El* national concept in the national education system, on national unity, and the country's shared history, culture and languages, principles that are a guarantee of stability and strengthen the country's position on the world stage.

The President of the Information-Analytic Centre, **Serik Irsaliyev**, will provide a comparative analysis of the national system of education and that of its peers with the help of global competitiveness indices and the results of international large-scale assessments, such as PISA and TIMSS.

Gifted children who are capable of developing the country is the focus of the presentation of **Sholpan Kirabayeva**, General Director of Daryn.

Beybitkul Karimova, General Director of the National Applied Research Centre, Uchebnik, will talk about approaches to textbook publishing for a new generation.

Sergazy Adekenova, Chairperson of Phyotchemistry Holding, will give a presentation on the importance of integrating science, education and industry and on the commercialisation of scientific outputs on the basis of the experience of the State Programme of Industrial Innovation.

Rauan Kenzhekhanuli, Founder and Chairperson of Wikibilim Foundation, will present on the topical issue of digital resources and the prospects for the application of information technologies for the teaching process, and computer literacy for teachers and students.

We hope that this reflection on the creation of Kazakhstan's independent system of education will help you see the strong sides of the national system of education, areas for improvement, and likewise will provide a foundation for an interesting and constructive dialogue between all participants in the conference.

БИОГРАФИИ



William H. Schmidt

William H. Schmidt is a University Distinguished Professor of Statistics and Education at Michigan State University. He serves as Director of the Education Policy Center and holds faculty appointments in statistics and education.

Previously, Prof. Schmidt served as National Research Coordinator and Executive Director of the US National Center which oversaw participation of the United States in the IEA sponsored Third International Mathematics and Science Study (TIMSS). He has published in numerous journals including the Journal of the American Statistical Association, Journal of Educational Statistics, EEPA, Science, Educational Researcher and the Journal of Educational Measurement. He has co-authored ten books including Why Schools Matter, Teacher Education Matters, and Inequality for All. His current writing and research concerns issues of academic content in K-12 schooling including the Common Core State Standards for Mathematics, assessment theory and the effects of curriculum on academic achievement. He is also concerned with educational policy related to mathematics, science and testing in general. Dr. Schmidt received the 1998 Willard Jacobson Lectureship from The New York Academy of Sciences and is a member of the National Academy of Education. In 2009 he was elected in the first group of Fellows in the American Educational Research Association. Dr. Schmidt served on the Steering Committee for Review of the Evaluation Data on the Effectiveness of NSF-Supported Mathematics Curriculum Materials. He received his A.B. in mathematics from Concordia College in River Forrest, IL and his Ph.D. from the University of Chicago in psychometrics and applied statistics. He was also awarded an honorary doctorate degree from Concordia University in 1997.

Inequality through schooling: A worldwide phenomenon

Although the effect of tracking on educational inequality has long been the subject of education research (see Schmidt & Burroughs 2012 for a summary), until recently most of that work has relied on fairly blunt measures of curricular inequality (e.g. earliest age of tracking) and emphasized between-school differences. Recent research making use of student-level indicators of opportunity to learn (OTL) suggests widespread within-school inequality that is systematically related to student socioeconomic status (Schmidt et al. 2015). Schmidt et al. found that roughly a third of the relationship between SES and student mathematics scores on the 2012 PISA was due to the association of SES to OTL. In all countries there was a statistically significant relationship between OTL and student socioeconomic status. Further, the study uncovered considerable variation in which inequalities in SES-based inequalities in OTL were attributable to between or within school differences.





Tom Hsu

Dr. Tom Hsu is a Professor at Massachussetts Institute of Technology, and a nationally known as an innovator in technology for learning including science equipment, curriculum and teacher professional development. An inspiring teacher and strong advocate of hands-on learning, Tom is known for the elegant equipment and curriculum he created with Ergopedia, CPO, and Lab-Aids.

His approach coordinates technology, textbooks, teaching apparatus, hands-on investigations, assessment, and teacher training into true learning solutions that optimize student achievement while also being practical and economical. Tom has lead the development of extraordinary e-Book technology featuring powerful interactive media, animation, video, and simulation for teaching physics and math on tablets, computers, even smart phones. Tom is the author or co-author of seven published middle and high school science programs in physics, chemistry and physical science, including "Essential Physics" a new electronic STEM physics program from PASCO Scientific, "A Natural Approach to Chemistry," published by Lab-Aids, and "Integrated Physics and Chemistry," published by CPO Science and widely used in Texas. Tom is the Chief Product Officer of PASCO Scientific, the co-founder of Ergopedia, Inc, and the founder and former president of CPO Science. Tom has personal teaching experience from elementary grades through graduate school and holds a Ph.D. in applied plasma physics from MIT where he was nominated for the Goodwin medal for excellence in teaching.

Out of the vast body of science, how do we choose what to teach?

As educational policymakers we must decide what to teach and what is most important to be learned. Science includes a vast body of knowledge and skills. At every age we must choose a very tiny subset of science that is both learnable, and most important to teach. What should motivate that choice? Should we emphasize preparation for future research? Should we emphasize preparation for a college entrance test? Should we emphasize practical skills that are broadly applicable to any career? As we choose what to leave "in," how do we decide what to leave out? This talk focuses on making the choices of what and how to best teach science to prepare students for success – in future education and in life more generally.

Technology offers both advantages and also risks to educators. Technology for its own sake costs a great deal but is often ineffective because it is poorly implemented. For example, simply swiping a finger to turn a page is not a sufficient advantage to justify the cost of technology. A well-executed technology plan however, can yield extraordinary results. Technology can unlock powerful new modes of learning. For example, well-designed learning technology enables direct student measurement of nature, interactive simulation, animation, visualization, and one-on-one instant feedback. These characteristics can greatly multiply the effectiveness of teaching and learning. This talk focuses on the specific ways in which technology can enhance learning – through techniques such as direct student measurement, interactive simulation, and visualization.



Richard P. Phelps

Richard P. Phelps is the Director of Research and Strategic Resources at the Association of Boarding Schools of the US and Canada, a Specialist Scholar with the US Fulbright Commission, and the Editor of the Nonpartisan Education Review.

Richard received degrees from Washington, Indiana, and Harvard Universities, and a PhD from the University of Pennsylvania's Wharton School. Phelps is a Fellow of the Psychophysics Laboratory, and has been awarded research fellowships by the Educational Testing Service, the Association for Education Finance and Policy, and the US Education Department's National Center for Education Statistics. He has worked in education research and policy in the public sector at the local level (Washington, DC), state level (Indiana), and federal level (US Government Accountability Office), and internationally (Organisation for Economic Cooperation and Development), and in the private sector for ACT, Westat, and Pearson Evaluation Services. Phelps taught secondary school mathematics in Burkina Faso (West Africa). He is the author and editor of four books on standardized testing, several statistical compendia, and dozens of articles in scholarly journals. Richard Phelps founded the Nonpartisan Education Group and currently edits the Nonpartisan Education Review. He lives in Asheville, North Carolina, in the United States.

Designing an Assessment System

If standardized testing were just now invented, with no predispositions or expectations about its use, how would we use it? The most important theme to keep in mind is that standardized tests are not all the same. They vary in length, format, content, purpose, ...in innumerable ways. The same assessment may be highly appropriate in one circumstance, and highly inappropriate in another. If one could design a system so that all tests in an education system were complementarily used to maximize their collective social benefit, what would that collection of tests look like? Which types of tests would be used where, ...and when?

This presentation will respond to these questions, recognizing that there is no single correct answer. An impressive body of research evidence will inform the talk; some of the most informative, from cognitive psychologists, is fairly recent. Topics will include cognitive load theory; the variable nature of feedback; the interplay between stakes and security, and stakes and motivation; retrieval, spacing, interleaving, and other cognitive science concepts; the role of format (selected response, constructed response, authentic, etc.); and, more generally, the role of assessment in students' intellectual development.





Gunter Maris

Gunter Maris is full professor of psychological methods at the University of Amsterdam and principal research scientist at CITO, both in the Netherlands.

Maris holds a Phd in mathematical psychology from the University of Nijmegen and a Masters degree in theoretical psychology from the University of Leuven. His research interests focuses on formal theories of learning and individual differences, and statistical methods to evaluate such theories. Maris has published widely in top tier

journals in science in general (e.g., Science), in psychology (e.g., Psychological Review), and psychometrics (e.g., Psychometrika).

Learning as it happens - Learning how it happens

With the increased availability of computers with broadband internet connections in schools it becomes possible to register every response to every excercise a child attempts during his or her school career, for every child. Information that was once locked into excercise books becomes unlocked, and can be centrally stored in a data base. Literally for the first time in history it becomes possible to study learning as it happens, and start to address the question of how it happens. Both of these are important prerequisites for adapting education to the needs of individual learners. Neither the educational measurement literature nor the psychological literature related to learning offer appropriate formal theories for how learning happens. There is a wealth of detailed information on the outcomes of learning (through large scale educational testing), and on artificial Tearning tasks (through small-scale experiments), but we are still far from a comprehensive theory encompassing all of these findings. In this presentation, Prof. Maris will outline some contours of such a comprehensive theory.



Miho Taguma

Miho Taguma is Senior Policy Analyst in the Early Childhood and Schools Division of the Directorate for Education and Skills at the Organisation of Economic Cooperation and Development (OECD).

Miho Taguma has been the project manager of the OECD's work on early childhood education and care (ECEC), including the OECD Network on ECEC, the international ECEC staff survey, the policy review on transition from ECEC to primary schooling.

She is currently also leading a new OECD initiative, Education 2030, that aims to help countries explore different dimensions of 21st century competencies which modern education systems need to develop in studentstowards the world in 2030 (Project Phase 1: 2015-2018); and in a later stage (Project Phase 2: 2019 and beyond), help countries explore the learning environments and education systems that can support the development of these competencies. The project will focus on secondary level education, where relevant, including vocational education and training while recognising a life-long learning continuum.

In the past, she has led various policy reviews such as on migrant educaiton, recognition of non-formal and informal learning. During her post at the Centre for Educational Research and Innovation, she worked on "E-learning in Tertiary Education". She was also involved in the UNESCO-OECD Policy Review of Education Sector for Mauritius as a review team

Prior to joining the OECD, she was working in the Education Sector of UNESCO (2002-2003). She was working on intercultural dialogue and education projects.

The OECD's new project: the Future of Education and Skills for 2030

Climate change, globalisation, technological innovations and other major trends are creating both new demands and opportunities that individuals and societies need to effectively respond to. Schools are required to prepare students for more rapid economic and social change, for jobs that have not yet been created, for technologies that have not yet been invented, and to solve social problems that cannot be anticipated. Schools also need to prepare students for a world in which most people will need to collaborate with people of diverse cultural origins, appreciate different ideas, perspectives and values, and decide how to trust and collaborate across such differences. Most school systems today struggle to provide students with a compass and the navigation skills to find their own way through such an increasingly volatile, uncertain, complex and ambiguous world.

The OECD launched a project called "Future of Education and Skills 2030", with an aim to provide greater clarity and develop practical tools for countries to better anticipate and prepare their instructional systems for the future, including a multidimensional framework of knowledge, skills, attitudes and values which can support countries to design, develop and review their own national instructional systems. The framework aims to support countries to make their curriculum redesign process more systematic and evidence-based, such as to tackle the issue of curriculum overload, curriculum gap between today's curriculum and what the curriculum should be aspired to look like towards 2030.





Pavel Luksha

Pavel Luksha is a Professor at Moscow School of Management at Skolkovo. The School of Management and the Skolkovo Educational Development Centre are conducting a joint project with the Ministry of Education of the Russian Federation and the International Trade Organisation. Since 2014, he has been the leader of Global Education Futures, an international platform for the discussion of perspectives and models of global education for the 21st century. The project is a continuation of the Russian project, Foresight 2035, which Pavel has been leading since 2010. This project, with support from the Russian Agency for Strategic Initiatives has attracted around educational innovators and has participated in the launch of dozens of innovations in the sphere of secondary, professional and technical education.

Since 2012, Pavel has been the project leader on forecasting competencies through 2030, and the basis of which the Atlas of New Professions was published in 2014. The collection is one of a number of similar collections on new and potential professions. From 2013-15, in the framework of the cooperation between the Russian Federation and the International Organisation of Labour, Pavel led the international methodological forecasting for a range of developing countries (pilot projects were held in Armenia, Vietnam, Tunisia, Tanzania and South Africa.)

What and why we need to teach students in the 21st century: Findings from Global Education Futures and the Center for Curriculum Redesign

The transformation of the global economy and technological society speaks to the fact that the world of the future will differ significantly from the present one. Total digitisation, reconstruction of the industrial and services sectors under the influence automatisation, environmentalism, new models of networked society, will place new demands on the person of the future to possess new knowledge and skills. The most important trend, the acceleration and intensification of changes as society gets increasingly complicated, demonstrates how preparing students for the forthcoming changes will be extremely difficult.

So the question arises, what and why to teach schoolchildren in the 21st century, in order that school continued to fulfil its educational and nurturing function: familiarisation with the world around us and preparation for adult life?



Alejandro Adler

Alejandro Adler is a well-being scientist and a postdoctoral fellow at the Positive Psychology Center at the University of Pennsylvania.

He works under the leadership of Dr. Martin Seligman, the founder of Positive Psychology. His research focuses on well-being, education, and public policy. Currently, Alejandro is working with the governments of Australia, Bhutan, Nepal, India, Mexico, Peru, and the USA to infuse curricula across schools in these countries with Positive Psychology and to measure the impact of these interventions on youth well-being. He has published a number of articles in both scholarly and non-academic outlets, and he frequently speaks at international conferences and gatherings.

Originally from Mexico, Alejandro has a BA in psychology, a/BSc in economics, an MA in psychology, and a PhD in psychology, all from the University of Pennsylvania. Before enrolling in his PhD program under the supervision of Dr. Martin Seligman, Alejandro worked as a researcher at the University of Pennsylvania's Center for High Impact Philanthropy, a think tank dedicated to channeling philanthropic funds to where they can have the most social impact. He is currently one of 60 members of the International Expert Well-being Group – a group of leading international experts from distinct disciplines who are working with the United Nations to create a New Development Paradigm based on well-being and happiness, which went into effect in 2015 when the UN's Millennium Development Goals (MDGs) expired and became the Sustainable Development Goals (SDGs).

Positive Education: Educating for Well-being and Academic Excellence

Can well-being be taught at a large scale, and should it be taught in schools and beyond? Does teaching well-being improve academic performance? To answer these questions, we present rigorous scientific data from three large-scale randomized controlled trials (RCTs) from around the world. In Program 1, 18 secondary schools (n=8,385 students) in Bhutan were randomly assigned to a treatment group (k=11) or a control group (k=7). The treatment schools received an intervention targeting ten nonacademic well-being skills, including mindfulness, empathy, compassion, effective communication, creative thinking, critical thinking, problem solving, leadership, resilience, and decision making. Program 2 was a replication study at a larger scale in 70 secondary schools $(m \neq 68,762)$ students) in Mexico. The schools were randomly assigned to a treatment group (i = 35) or a control group (j = 35). Program 3 was the last replication study at a larger scale in 694 secondary schools (q = 694,153 students) in Peru. The schools were randomly assigned to a treatment group (h = 347) or a control group (h = 347). In all three programs, students in the intervention schools reported significantly higher well-being and they performed significantly better on standardized national exams at the end of a 15-month intervention. Following these positive results, all three programs have been taken to a national scale in Bhutan, Peru, and Mexico. Our results suggest that, independent of social, economic, or cultural context, teaching well-being in schools at a large scale is both feasible and desirable, both for the intrinsic value of well-being, as well as for the instrumental value of well-being: the positive impact of wellbeing on academic performance, on physical health, and on other favorable life outcomes.





Colleen McLaughlin

Prof. Colleen McLaughlin is Director of Educational innovation at the University of Cambridge, Faculty of Education in United Kingdom.

Prof. McLaughlin was at the University of Sussex where she was Head of Department for three years. Prior to that she was at the University of Cambridge, Faculty of Education where she was Deputy Head of Faculty. She taught in secondary schools and worked as an advisor in a local education authority before coming to the then Institute of Education in 1985. Her recent research has focused on wellbeing in schools (for the Welsh Government and the Nuffield Foundation); relationships in schools; sexuality and HIV related education in Africa (for the Commonwealth Centre for Education); bullying and pupils with special educational needs and disabilities; counselling in schools; and aspects of personal, social and emotional development in schools. Support for international educational reform is also now a major area of work. She has been involved as an advisor to governments and NGOs on the personal and social dimensions of schooling.

Teachers matter: the role of teachers in reform and scaling up

Educators and policy makers realise, and research clearly demonstrates, that the most significant in-school factor affecting student achievement, in school success, and in the quality of a nation's educational system is the quality of teaching. The role of teachers is therefore centre stage in any attempts to change systems or develop practices in schools. This presentation explores international research on the topic but also examines some recent small-scale research that suggests that curriculum reform also has the potential to address some key issues such as teachers' sense of professionalism, motivation and identity. The need to keep teachers at the centre of reform and scaling will be argued for and the challenges in doing so identified, as well as the tensions between the needs of teachers and the needs of policy makers.

In this presentation, Prof. McLaughlin will draw upon 2016 collaborative research undertaken in Kazakhstan by Nazarbayev University, Nazarbayev Intellectual Schools Research Department and the University of Cambridge, Faculty of Education into the pilot schools adoption of the new reforms.

References

Darling-Hammond L, Rothman R (2011) Teacher and leader effectiveness in high-performing education systems, Washington, DC: Alliance for Excellent Education and Stanford, CA: Stanford Centre for Opportunity Policy in Education.

PROGRAMME

PLENARY SESSION PROGRAMME

DAY 1 - 27TH OCTOBER

08.00-09.00

Registration (open throughout the day)

09.00-10.30

Welcome

Kulyash Shamshidinova,

Chairperson, Nazarbayev Intellectual Schools AEO

I PLENARY SESSION "The 25th Anniversary of the Establishment of an Independent Educational System in the Republic of Kazakhstan"

Location: Assembly Hall

Chair: Kulyash Shamshidinova,

Chairperson, Nazarbayev Intellectual Schools AEO

The development of the post-independence system of education of the Republic of Kazakhstan

Zhanyl Zhontayeva,

Director, Department of Preschool, Primary and Secondary Education, Ministry of Education and Science, Kazakhstan

Member of Parliament, Kazakhstan; Fellow of the National Academy of Science; Fellow of the Kazakhstan Academy of Jurisprudence; Professor

Bakytzhan Abdraim,

Director, Department of Preschool, Primary and Secondary Education, Ministry of Education and Science, Kazakhstan

The history of the development of Kazakhstani schools

Shamsha Berkimbayeva,

Fellow of the International Academy of Pedagogical Sciences, Russia; Minister of Education and Science, Kazakhstan (2002-03)

The role of NIS in the development of the secondary education system of Kazakhstan

Kulyash Shamshidinova,

Chairperson, Nazarbayev Intellectual Schools AEO

Creating Nazarbayev University: not along the beaten path

Shigeo Katsu,

President, Nazarbayev University

Educating Kazakhstan in the years of independence in the context of global trends: achievements and topical issues

Serik Irsaliyev,

President, Information Analytic Centre

Implementing the Eternal Nation national concept in contemporary education

Ayakul Mirazova,

Hero of Labour, Kazakhstan

Talented kids, the future of Kazakhstan

Sholpan Kirabayeva,

General Director, Daryn

New century, new textbooks

Beibitkul Karimova,

General Director, Uchebnik

Integrating science, education and industry

Sergazy Adekenov,

Chairperson, Phytchemistry Holding



PROGRAMME

The educational IT industry

Rauan Kenzhekhanuli,

Founder and Chairperson, Honorary Council of WikiBilim; Founder of WikiBilim Media Group

10.40-11.40

II PLENARY SESSION "Curriculum"

Location: Assembly Hall Chair: David Bridges,

Emeritus Professor, University of East Anglia and Emeritus Fellow of St Edmund's and Homerton Colleges, Cambridge

Curriculum and inequality through schooling

William Schmidt,

Professor, Michigan University

Out of the vast body of science, how do we choose what to teach?

Tom Hsu,

Professor, MIT

11.50-13.20

I Breakout Sessions organized by network

11.50-13.20

NIS Strategic Meeting

Location: Library

13.20-14.20

Lunch

14.20-15.50

II Breakout Sessions organized by network

15.50-16.20

Coffee Break

16.20-17.20

III Plenary Session "Assessment"

Location: Assembly Hall Chair: Olga Mozhayeva,

Managing Director, Nazarbayev Intellectual Schools AEO

Designing an Assessment System

Richard Phelps,

Editor, Nonpartisan Educational Review; Director of Research, National **Boarding Schools Association**

Learning as it happens - Learning how it happens

Gunter Maris,

Professor of Psychological Methods, University of Amsterdam

17.30-19.00

III Breakout Sessions organized by network



DAY 2-28TH OCTOBER

09.30-11.00

IV Plenary Session "The Future of Education"

Location: Assembly Hall

Chair: Kulyash Shamshidinova,

Chairperson, Nazarbayev Intellectual Schools AEO

Review of the first day of the conference

Svetlana Ispusinova,

Vice Chairperson, Nazarbayev Intellectual Schools AEO

The OECD's new project: the Future of Education and Skills for 2030

Miho Taguma,

Senior Policy Analyst, OECD

What and why we need to teach students in the 21st century

Pavel Luksha,

Professor, Skolkovo Institute, Russia

11.10-12.40 IV Breakout Sessions organized by network

12.40-13.40 Lunch

13.40-15.10 V Breakout Sessions organized by network

15.10-15.30 Coffee break

15.30-17.00 VI Breakout Sessions organized by network

17.10-18.10 V Plenary Session "Positive Education and the Role of Teachers"

> Location: Assembly Hall Chair: Svetlana Ispusinova,

Vice Chairperson, Nazarbayev Intellectual Schools AEO

Positive education: educating for well-being and for academic success

Alejandro Adler,

Professor, Pennsylvania University

Teachers matter: the role of teachers in reform and scaling up

Colleen McLaughlin,

Cambridge University, UK

Review of the second day of the conference

Peeter Mehisto, Institute of Education, UCL, UK

Kulyash Shamshidiyeva, Chairperson, Nazarbayev Intellectual Schools AEO

Note: Networks are virtual research communities dedicated to the study of one aspect of education. Headed by a network chair, the communities will come together for sessions in the context of the annual NIS International Research-to-Practice Conference.



NETWORKS

BREAKOUT SESSIONS

The breakout sessions are organised by network:

H1 - Educational Policy and Improvement

H2 - Leadership in Education

H4 - Multilingual Education

H5 - Early Childhood and Primary Education

H3 - Curriculum and Subject Disciplines

H6 - Teaching and Learning

H7- Teacher Education and Professional Development

H8 - Practitioner Research

H9 - Quality Assurance

H10 - Assessment, Evaluation, Testing and Measurement

H11 - Student Welfare and Pastoral Care

H12 - Educational Resources

H13 - Family, Communities and Society

H14 - Research Practice and Ethics



	Breakout Session 1	Breakout Session 2	Breakout Session 3
		Thursday, 27 October	
	11.50-13.20	14.20-15.50	17.30-19.00
Assembly Hall Simultaneous Translation	Prospects for Educational Change (N1)	Research Ethics. Panel discussion (N14)	Technology in the Educational Process (N12)
<u>Library</u> Simultaneous Translation	Strategic Partners Meeting	The Role of the Family and Society in Education (N13)	Practitioner Research as a Form of Professional Development (N8)
Small Sports Hall 1 Simultaneous Translation	Positive Education and Student Wellbeing (N11)	Developing Teaching Materials. Seminar (N12)	School Accreditation (N9)
Small Sports Hall 2 Simultaneous Translation	Student Voice and Engagement (N8)	Integrating Subject Disciplines and Language Instruction (N4)	Implementing the Trilingual Education Policy (N4)
<u>Amphitheatre</u> Kazakh / Russian Language Sessions	Developing STEM Education (N3)	Widening Opportunities for Students (N6)	Educational Change in Central Asian Countries. Video Conference (N1)
<u>Small Library</u> Kazakh / Russian Language Sessions	Teacher Professionalism and its Appraisal (N7)	Mathematics Education (N3)	The Application of Innovative Educational Content in Schools (N12)
Room 130 Kazakh / Russian Language Sessions	Developing Students' Language Skills (N6)	The Role of Trainers in Teacher Professional Development (N7)	The Role of Trainers in Teacher Professional Development (N7)
Room 131 Kazakh / Russian Language Sessions	Poster Session 1 (N8)	Poster Sessions 2 (N8)	

	Breakout Session 4	Breakout Session 5	Breakout Session 6
		Friday, 28 October	
	11.10-12.40	13.40-15.10	15.30-17.00
Assembly Hall Simultaneous Translation	Digital Learning. Panel Discussion (N12)	Preschool Educational Programmes (N5)	Organising Summer Schools for Students (N6)
<u>Library</u> Simultaneous Translation	Piloting Educational Reforms in Pilot Schools. Roundtable (N1)	Managing Change. Seminar (N2)	Educational Resource Development. Seminar (N12)
School Leadership and Governance (N2) Translation		Inclusive Education (N11)	Achieving Innovation in Kazakh Schools (N1)
Small Sports Hall 2 Simultaneous Translation	Implementing the Trilingual Education Policy (N4)	Summative Assessment (N10)	Assessment Systems (N10)
<u>Amphitheatre</u> Kazakh / Russian Language Sessions	Assessment Systems (N10)	Schooling and School Effectiveness (N9)	Curriculum in Practice (N3)
Small Library Kazakh / Russian Language Sessions	Lesson Study in Teacher Professional Development (N8)	Teacher Professional Development (N7)	Teacher Professional Development (N7)
Room 130 Kazakh / Russian Language Sessions	Poster Session 3 (N8)	Disseminating the NIS Experience (N1)	
Room 131 Kazakh / Russian Language Sessions	Poster Session 4 (N8)	Topical Issues for Educational Reform: Updating the Curriculum Content for Mathematics. Roundtable (N3)	Topical Issues for Educational Reform: Updating the Curriculum Content for Mathematics. Roundtable (N3)

27-28 October 2016



Thursday, 27 October, 11.50-13.20

Assembly Hall	Network 1: Educational Change	PROSPECTS FOR EDUCATIONAL CHANGE
Simultaneous Translation	and Innovation	The socio-economic development of Kazakhstan and the importance of education
rransation		Alikhan Karabayev
		/Information Analytic Centre, Kazakhstan/
		The digital generation and the ethnopedagogical basis of education: a glimpse into the future Aygerim Mynbayeva /Faculty of General and Ethnographic Education, Kazakh National University, Kazakhstan/
		The Experience of the MSU Kolmogorov School Kirill Semenov /Kolmogorov School, Russian Federation/
		Session Chair: David McHutchon
		/Nazarbayev Intellectual Schools, Kazakhstan/
		Discussant: Yeldos Nurlanov
		/Information Analytic Centre, Kazakhstan/
Small Sports	Network 11:	POSITIVE EDUCATION AND STUDENT WELLBEING
// Hall 1	Student Welfare and	Decitive advection, from the own to proceed
/ Simultaneous	Pastoral Care	Positive education: from theory to practice Alejandro Adler
Translation		/Centre of Positive Psychology, University of Pennsylvania, United States/
		The benefits and drawbacks of boarding: A summary of the literature Richard Phelps /National Association of Boarding Schools, United States and Canada/
		Forming the individual educational space of young teenagers
		Elmira Aliyeva /Almaty Education Authority, Kazakhstan/
	V	Developing a holistic, context specific model to study young people's wellbeing in Kazakhstan Daniel Hernandez Torrano
		/Nazarbayev University, Kazakhstan/ Liz Winter
		/Cambridge University, United Kingdom/
		Session Chair: Liz Winter
		/Cambridge University, United Kingdom/



Thursday, 27 October, 11.50-13.20

Small Sports	Network 8:	STUDENT VOICE AND ENGAGEMENT
Hall 2 Simultaneous Translation	Practitioner Research	An investigation of the relationship between teachers and students and their ideas of student voice in one NIS school in Kazakhstan Victor Sossin
		/NIS Taldykorgan, Kazakhstan/
		Towards an understanding of how a year 9 Chemistry teacher fosters an atmosphere of engagement through behaviour management Meruyert Kazbekova
		/NIS Karaganda, Kazakhstan/
		Journal writing as a tool to help develop student voice Timur Boskin /International School of Astana, Kazakhstan/
		Increasing student effectiveness through problem-based learning (PBL)
		Inna Aksyonova /NIS Taraz, Kazakhstan/
		Session Chair: Gulnar Altayeva /Nazarbayev Intellectual Schools, Kazakhstan/ Discussant: Richard Evans
		/NIS Shymkent ChB, Kazakhstan/
Amphitheatre	Network 3:	DEVELOPING STEM EDUCATION
Kazakh / Russian Language	Curriculum and Subject Disciplines	A comparative analysis of the NIS informatics curriculum with international informatics programmes Anar Tayapbergenova
Sessions		/NIS Semey, Kazakhstan/
		Project work in secondary education Nurken Kainarov /Qadyrgali Jakaiyra Middle School No. 6, Shengeldy, Kazakhstan/
		Planning student research in natural sciences pedagogy Dinara Beysembayeva, Aibarshin Bolatova /NIS Astana, Kazakhstan/
		Conceptualising and exploring options for the development of STEM education Tatyana Rimkevichus
		/Novosibirsk State University, Russian Federation/
		Session Chair: Arailym Magzumova /Centre for Educational Programmes, Nazarbayev Intellectual

Schools, Kazakhstan/



Thursday, 27 October, 11.50-13.20

Kazakh / Russian Language Sessions

Small Library

Network 7: Teacher Education and Professional Development TEACHER PROFESSIONALISM AND ITS APPRAISAL

International research from TALIS: lessons and opportunities for Kazakhstan

Dilyara Tashibayeva

/Information Analytic Centre, Kazakhstan/

A study of NIS teachers' perceptions of teacher professionalism in Kazakhstan

Bakhyt Amirova

/NIS Pavlodar, Kazakhstan/

The influence of the Centre of Excellence's professional development programme on the assessment by teachers of the importance of educational outcomes

Larisa Obydyonkina

/Centre of Excellence, Uralsk, Kazakhstan/

Teacher appraisal and professional development in Kyrgyzstan

Kyyalbek Akmatov

/Zhetigen Lyceum, Kyrgyzstan/

Early career teachers' challenges in Kyrgyzstan

Momonov Zainidin, Melisbek Muzulmanov /Zhetigen Lyceum, Kyrgyzstan/

Session Chair: Dinara Aytbayeva

/Nazarbayev Intellectual Schools, Kazakhstan/

Room 130

Kazakh / Russian Language Sessions Network 6: Teaching and Learning **DEVELOPING STUDENTS' LANGUAGE SKILLS**

Investigating the problems faced by teachers in developing Russian language writing

Gulmira Zokhamkulova

/Centre for Educational Programmes, Nazarbayev Intellectual Schools, Kazakhstan/

Assessing students' creative skills by writing essays

Zhaina Rustemova

/Center of Pedagogical Measurements, Nazarbayev Intellectual Schools, Kazakhstan/

Developing students' visual comprehension skills through the analysis of written and visual texts

Tolkyn Shomshekova, Meruyert Ziyatbek /NIS Astana, Kazakhstan/

Using reciprocal reading with informative texts to improve reading comprehension

Zauresh Manabayeva, Dee Edwards /NIS Kyzylorda, Kazakhstan/

TED talks's impact on the development of students' speech skills in Global Perspectives

Anastasiya Krotova

/NIS Almaty PhM, Kazakhstan/

Session Chair: Aigul Kazzhanova

/ Nazarbayev Intellectual Schools, Kazakhstan/



Thursday, 27 October, 11.50-13.20

Room 131

Kazakh / Russian Language Sessions Network 8: Practitioner Research POSTER SESSION 1. SHARING PROFESSIONAL KNOWLEDGE

The criteria-based assessment implementation initiative in Kazakhstan

Aliya Mustafina

/Center of Pedagogical Measurements, Nazarbayev Intellectual Schools, Kazakhstan/

How reading schema and images may be used to develop 8th grade students' functional literacy

Aliya Aringazinova /NIS Pavlodar, Kazakhstan/

How modelling can aid understanding of biological concepts and processes in biology lessons

Gulzhan Nusipzahonova /NIS Aktau, Kazakhstan/

How the internet can be used to improve 14-15-year-old students' functional literacy in Kazakh language lessons

Ainur Tokbayeva /NIS Almaty ChB, Kazakhstan/

How open-ended exercises can help students develop divergent thinking in biology

Larisa Klyshina /NIS Pavlodar, Kazakhstan/

The acquisition of English articles by second language learners

Aiganym Sultanova /International School of Astana, Kazakhstan/

Using critical thinking to develop students' skills of reflection

Aisaule Tleulesova /NIS Atyrau, Kazakhstan/

Session Chair: Irina Madeyeva

/Nazarbayev Intellectual Schools, Kazakhstan/



Thursday, 27 October, 14.20-15.50

Assembly Hall	Network 14:	RESEARCH ETHICS. PANEL DISCUSSION
Simultaneous Translation	Research Practice and Ethics	Research, criticality and ethics David Bridges /University of East Anglia, and Cambridge University, United Kingdom/
		Ethical dilemmas in post-socialist education research Iveta Silova /Center of Global Studies in Global Education, Arizona State University, United States/
		The experience of the NUGSE ethics review process as a case study Ali Ait Si Mhamed /Graduate School of Education, Nazarbayev University, Kazakhstan/ Session Chair: David Bridges /University of East Anglia, and Cambridge University, United Kingdom/
Library Simultaneous Translation	Network 13: Family, Communities and Society	THE ROLE OF THE FAMILY AND SOCIETY IN EDUCATION Multiliteracies community of learning – shifting from product to process Nettie Boivin /Nazarbayev University, Kazakhstan/
		Factors influencing parents' choice of school: the example of two schools with different instructional languages Assem Kozhakhmetova /College of Business and Management, Kazakhstan/
		John Dewey's views on society: some implications for educationalists David McHutchon /Nazarbayev Intellectual Schools, Kazakhstan/
		Session Chair: Esengazy Imangaliyev /Nazarbayev Intellectual Schools, Kazakhstan/
Small Sports Hall 1 Simultaneous Translation	Network 12: Educational Resources	DEVELOPING TEACHING MATERIALS. A SEMINAR In search of 21st Century Skills task engines: development of C21st skills materials across the curriculum Bob Obbi /Cambridge English Language Assessment, Express Publishing, United Kingdom/ Session Chair: Gulnara Salmenova
		/Centre for Educational Programmes, Nazarbayev Intellectual Schools, Kazakhstan/



Thursday, 27 October, 14.20-15.50

Small	Sports
Hall 2	

Simultaneous

Translation

Network 4 : Multilingual Education

INTEGRATING SUBJECT DISCIPLINES AND LANGUAGE INSTRUCTION

Content and Language Integrated Learning (CLIL) as a response to the implementation of trilingual education: teachers' perceptions, practices, and challenges

Arna Bekenova

/Kazakhstan Agrotechnical University, Kazakhstan/

Advantages and disadvantages in teaching History of Kazakhstan in Kazakh (L2)

Zukhra Shegenova

/Centre for Educational Programmes, Nazarbayev Intellectual Schools, Kazakhstan/

Teaching English in a village school: problems and prospects

Raikhan Saniyazova

/Rykova Middle School, Katon-Karagay, East Kazakhstan Oblast, Kazakhstan/

Session Chair: Zhanar Abdildina

/Centre for Educational Programmes, Nazarbayev Intellectual

Schools, Kazakhstan/

Discussant: Peeter Mehisto

/UCL Institute of Education, United Kingdom/

Amphitheatre

Kazakh / Russian Language Sessions

Network 6: Teaching and Learning

WIDENING OPPORTUNITIES FOR STUDENTS

Implementing the NIS Developing Talent programme: monitoring the implementation, results, conclusions, recommendations and prospects

Saule Vildanova

/Centre of Pedagogical Measurements, Nazarbayev Intellectual Schools, Kazakhstan/

Principles governing the organisation and the conduct of projects: should access be widened or frameworks provided in lower secondary schools?

Zukhra Uteshova, Aisulu Makanova /NIS Astana PhM, Kazakhstan/

The assessment of high-order skills through online portals

Ainagul Yermekova

/NIS Pavlodar, Kazakhstan/

Session Chair: Bakhty Baginbayeva

/Nazarbayev Intellectual Schools, Kazakhstan/



Thursday, 27 October, 14.20-15.50

	Small Library	Network 3 : Curriculum and	MATHEMATICS EDUCATION
	Kazakh / Russian Language Sessions	Subject Disciplines	Teaching mathematics as a second language through team teaching: differences between Western and Soviet mathematics Ринат Жумабаев /NIS Aktau, Kazakhstan/
5			Using technology in high school mathematics classes Adilet Yesbayev, Rasul Akhmetbekov /NIS Astana, Kazakhstan/ Experiences of mathematics teachers in using Dynamic Mathematics Software (DMS) Talgat Bainazarov /NIS Karaganda, Kazakhstan/
			Session Chair: <i>Toibek Aubakirov</i> /Centre for Educational Programmes, Nazarbayev Intellectual Schools, Kazakhstan/
	Room 130	Network 7: Teacher Education	THE ROLE OF TRAINERS IN TEACHER PROFESSIONAL DEVELOPMENT
	Kazakh / Russian Language Sessions	and Professional Development	Developing teachers' professional practice through reflection <i>Galiya Tolykbayeva, Karlygash Kaldarova</i> /Almaty Centre of Excellence, Nazarbayev Intellectual Schools, Kazakhstan/
			Self-education through self-assessment Sapura Zholdaspayeva /Astana Centre of Excellence, Nazarbayev Intellectual Schools, Kazakhstan/
			How trainers can use intellectual maps to plan formative assessment for teachers (portfolios and presentations) Zhazira Kuzhagulova /Center of Pedagogical Measurements, Nazarbayev Intellectual Schools, Kazakhstan/
			Supporting trainer delivery of presentation formative assessments Togys Zhanarkul /Center of Pedagogical Measurements, Nazarbayev Intellectual Schools, Kazakhstan/
			Session Chair: Zhanbota Kabdykarimova /Centre of Excellence, Nazarbayev Intellectual Schools, Kazakhstan/



Thursday, 27 October, 14.20-15.50

Room 131

Kazakh / Russian Language Sessions Network 8: Practitioner Research POSTER SESSION 2. SHARING PROFESSIONAL KNOWLEDGE

Conceptual learning guaranteeing literacy

Nartay Chultukov

/NIS Semey, Kazakhstan/

The effectiveness of developing students' critical thinking in History of Kazakhstan lessons by working with authentic historical data

Larisa Berdygaliyeva /NIS Uralsk, Kazakhstan/

Inculcating compositional skills through the creative method at primary school level

Ardak Toktanova, Alemgul Taskimbayeva /International School of Astana, Kazakhstan/

Teaching an understanding of visual texts: reading, comprehension and interpretation in Russian Language and Literature lessons

Zauresh Sugurabayeva, Klara Omarova /NIS Astana, Kazakhstan/

The development of reflective practice at NIS Semey

Nazym Adaspayeva /NIS Semey, Kazakhstan/

Contemporary teaching practices in Mathematics

Galiya Makhamova /NIS Astana, Kazakhstan/

Reflective practice as one form of innovation in education

Dametken Syzdykbayeva /NIS Astana, Kazakhstan/

Increasing passive students' interest in Mathematics through lesson study

Nazgul Zhubanova /NIS Atyrau, Kazakhstan/

Session Chair: Bolat Nasygazy

/Nazarbayev Intellectual Schools, Kazakhstan/



Thursday, 27 October, 17.30-19.00

	Assembly Hall	Network 12:	TECHNOLOGY IN THE EDUCATIONAL PROCESS
	Simultaneous Translation	Educational Resources	How can we get the educational benefit from technology that justifies the cost? Tom Hsu
			/Massachussetts Institute of Technology, United States/
			An exploratory study of secondary school teachers' integration and use of ICT in teaching, learning, and management in Kazakhstan Nurmukhammed Dosybayev /Shymkent Educational Authority, Shymkent, Kazakhstan/
			The design of educational software for mobile technologies in education Michelle Somerton /Nazarbayev University, Kazakhstan/
			Session Chair: Rymzhan Turlubekova /Educational Resource Centre, Nazarbayev Intellectual Schools, Kazakhstan/
/	Library	Network 8: Practitioner	PRACTITIONER RESEARCH AS A FORM OF PROFESSIONAL DEVELOPMENT
	Simultaneoùs Translation	Research	The advantages and difficulties of implementing action research and lesson study projects at Nazarbayev Intellectual Schools Irina Madeyeva, Bolat Nassygazy /Nazarbayev Intellectual Schools, Kazakhstan/
			Study of NIS teachers' perceptions of professional learning communities (PLCs) Botagoz Isabekova /NIS Pavlodar, Kazakhstan/
			Developing teachers' lesson observation skills through lesson study
			Arman Imansharipova, Tatyana Mashinets, Zhadyra Seysenbayeva /NIS Astana, Kazakhstan/
			Dual professionalism: Armenian teacher education reform solutions for the schools of future Hasmik Kyureghyan /Ayb School, Armenia/
			Session Chair: Botagoz Dabylova /Nazarbayev Intellectual Schools, Kazakhstan/
			Discussant: Colleen McLaughlin /Cambridge University, United Kingdom/



Thursday, 27 October, 17.30-19.00

Small Sports Hall 1 Simultaneous Translation	Network 9 : Quality Assurance	CIS accreditation: the impact on NIS schools Stuart McLay /School Evaluation and Support Department, Council of International Schools, Netherlands/ David Stanfield
		/Research and Development Department, Council of International Schools, Netherlands/ The development of NIS in the framework of international accreditation Anuar Zhangozin /NIS Astana, Kazakhstan/ Duman Sapakov /NIS Kostanai, Kazakhstan/ Session Chair: Olga Mozhayeva
		/Nazarbayev Intellectual Schools, Kazakhstan/
Small Sports Hall 2 Simultaneous Translation	Network 4: Multilingual Education	Mind the gap: towards an understanding of the implementation process of Trilingual Education Policy at the Nazarbayev Intellectual Schools Arailym Magazumova /Centre for Educational Programmes, Nazarbayev Intellectual Schools, Kazakhstan/
		Students' perceptions of teaching and learning process within trilingual educational programs of study in one Kazakhstani state university Mariya Bekova
		/Nazarbayev University, Kazakhstan/
		The role of the Baiterek Kazakh Language and Culture Centre in the formation of the Kazakh national identity among students in Novovarshavsky region, Omsk oblast Sholpan Seksembayeva /Kazaryuk School, Novovarshavka, Omsk Oblast, Russian Federation/ Session Chair: Sulushash Kerimkulova /Nazarbayev University, Kazakhstan/ Discussant: Peeter Mehisto /University College London, United Kingdom/



Thursday, 27 October, 17.30-19.00

Amphitheatre Russian Language Session	Educational Change and Innovation	EDUCATION RESEARCH STUDIES IN CENTRAL ASIAN COUNTRIES. VIDEO CONFERENCE Primary and secondary education research in Tadzhikistan Sarfaroz Niyozov /Aga Khan University, Karachi, Pakistan/ Primary and secondary education research in Kyrgyzstan Rakhat Zholoshliyeva / University of Toronto, Canada/ Primary and secondary education research in Kazakhstan Kairat Kurakbayev, Daniel Torrano /Nazarbayev University, Kazakhstan/ Session Chair: Iveta Silova /Arizona State University, United States/ Discussant: Diushon Shamatov /Nazarbayev University, Kazakhstan/
Small Library Kazakh / Russian Language Session	Network 12: Educational Resources	THE APPLICATION OF INNOVATIVE NATIONAL EDUCATIONAL CONTENT IN SCHOOLS Rauan Kenzhekhanuli, Timur Muktarov, Nartai Ashim /Bilim Media Group, Kazakhstan/ Session Chair: Rauan Kenzhekhanuli /Bilim Media Group, Kazakhstan/
Room 130 Kazakh / Russian Language Session	Network 7: Teacher Education and Professional Development	THE ROLE OF TRAINERS IN TEACHER PROFESSIONAL DEVELOPMENT Collaborative work between guidance teacher trainers and teachers in pilot schools in the implementation of the updated programme of educational reforms Tolkyn Aidosova /Astana Centre of Excellence, Nazarbayev Intellectual Schools, Kazakhstan/ The role of trainers in improving the competency of teachers in leading schools Zhanar Khalginbayeva /Shymkent Centre of Excellence, Nazarbayev Intellectual Schools, Kazakhstan/ The role of the trainer in the developments of teachers' ICT competencies Akerke Aldanysh /Astana Centre of Excellence, Nazarbayev Intellectual Schools, Kazakhstan/ Using roadmaps to develop trainers reflective skills Lyudmila Kolesova /Center of Pedagogical Measurements, Nazarbayev Intellectual Schools, Kazakhstan/ Improving the effectiveness of formative assessment in the professional development system for educators Dariyash Shakimova /Center of Pedagogical Measurements, Nazarbayev Intellectual Schools, Kazakhstan/ Session Chair: Zhanbota Kabdykarimova /Centre of Excellence, Nazarbayev Intellectual Schools, Kazakhstan/



Friday, 28 October, 11.10-12.40

Assembly Hall	Network 12: Educational	DIGITAL LEARNING. PANEL DISCUSSION
Simultaneous Translation	Resources	The role of digital technology in education Todd Schwartz /Education.com, United States/
		Digital pedagogy through play Derek Brin /British Higher School of Art and Design, United Kingdom/
		The successful implementation and utilization of digital educational content and methods as a support for existing teaching resources in the 21st century classroom Peter Torok /Mozaik Education, Hungary/
		Modernisation of education using contemporary methods: how to bring up the engineers and innovators of the future? Pavel Frolov /Mezon.ru, Russian Federation/
		Session Chair: Rymzhan Turlubekova /Educational Resource Centre, Nazarbayev Intellectual Schools, Kazakhstan/
		Discussant: <i>Michelle Somerton</i> /Graduate School of Education, Nazarbayev University, Kazakhstan/
Library Simultaneous Translation	Network 1: Educational Change and Innovation	PILOTING EDUCATIONAL REFORMS IN PILOT SCHOOLS. ROUNDTABLE Renewal of the Primary Curriculum in pilot schools: findings of the international research project Colleen McLaughlin, Liz Winter /Cambridge University, United Kingdom/ Kairat Kurakbayev /Nazarbayev University, Kazakhstan/
		On the results of the monitoring of piloting the renewed content of the curriculum in the first grade of mainstream secondary schools Mariyam Mukatova /National Academy of Education, Kazakhstan/
		Piloting the New Primary Curriculum: advantages and perspectives Almagul Kaziyeva /Gorky Lyceum, Mangistau Oblast/
		The results of diagnostic testing of first grade students of pilot and control schools Sabyrzhan Madeyev /Center of Pedagogical Measurements, Nazarbayev Intellectual Schools, Kazakhstan/
		Session Chair: Aigul Kazzhanova /Nazarbayev Intellectual Schools, Kazakhstan/



Friday, 28 October, 11.10-12.40

Small Sports Hall 1	Network 2: Leadership in	SCHOOL LEADERSHIP AND GOVERNANCE
Simultaneous Translation	Education	How the functional composition of school administrative teams is changing Saule Akhmetbekova /Centre of Excellence, Nazarbayev Intellectual Schools, Kazakhstan/
		How can educational leadership development contribute to the implementation of international policies in Kazakhstan? Gulmira Kappasova /Middle School No. 2, Aksu, Pavlodar Oblast, Kazakhstan/
		Researching the development of non-positional teacher leadership in Kazakhstan Gulmira Kanayeva /Cambridge University, United Kingdom/
		A case study of headteachers' leadership and management of rura schools in Kazakhstan Assel Bekina /Kenzhekol School, Pavlodar, Pavlodar Oblast, Kazakhstan/
		Session Chair: Jason Sparks /Nazarbayev University, Kazakhstan/
Small Sports	Network 4:	IMPLEMENTING THE TRILINGUAL EDUCATION POLICY
Hall 2 Simultaneous Translation	Multilingual Education	Kazakh transnational multiliteracy – building intergenerational communities of learning Nettie Boivin /Nazarbayev University, Kazakhstan/
		Ways of developing plurilingual competence from the European Perspective Assem Amantay, Aigerim Myrzabayeva /Nazarbayev University, Kazakhstan/
		Multilingualism in education: changing ideologies Akmaral Karabai /Nazarbayev University, Kazakhstan/
		Literacy gap: implications for multilingual education Zhuldyz Smagulova, Aliya Zhakupova /KIMEP, Kazakhstan/
		Session Chair: Yeldos Nurlanov /Information Analytic Centre, Kazakhstan/ Discussant: Peeter Mehisto /University College London, United Kingdom/



Friday, 28 October, 11.10-12.40

Amphitheatre	Network 10:	SYSTEMS OF ASSESSMENT	
Kazakh / Russian Language Session	Assessment, Evaluation, Testing and Measurement	Criteria-based assessment system: piloting and implementation Olga Mozhayeva, Aidana Shilibekova /Center of Pedagogical Measurements, Nazarbayev Intellectual Schools, Kazakhstan/	
		The Interrogative Testing Method of Knowledge Acquisition (the Mereke Method) Askhat Mereke /Satpayeva National Technological University, Kazakhstan/	_
		An investigation into whether school teachers' use of formative assessment to improve learning is informed by coaching Dinara Nurbayeva /Warwick University, United Kingdom/	
		The results of validisation research on the effectiveness of the admissions system for grade seven students at Nazarbayev Intellectual Schools Miras Baimyrza, Zamira Rakhymbayeva /Center for Pedagogical Measurements, Nazarbayev Intellectual Schools, Kazakhstan/	
		Session Chair: Olga Mozhayeva /Nazarbayev Intellectual Schools, Kazakhstan/	
Small Library Kazakh / Russian Language Session	ry Network 8: Practitioner Research The school-based based on lesson st Zhanna Baigarinov /Centre of Exceller	LESSON STUDY IN TEACHER PROFESSIONAL DEVELOPMENT The school-based system of teacher professional development based on lesson study Zhanna Baigarinova /Centre of Excellence, Nazarbayev Intellectual Schools, Kazakhstan/ The problem of research questions in lesson study	
		Ilya Melnikova /Pavlodar Centre of Excellence, Nazarbayev Intellectual Schools, Kazakhstan/	
		Teacher Distance Learning Programme as a tool from embedding lesson study as a staff-development training model approach in the Republic of Kazakhstan Liliya Zhurba /Kokshetau Centre of Excellence, Nazarbayev Intellectual Schools, Kazakhstan/	
		Developing Kazakhstani school culture with Lesson Study Kyz-Zhibek Abdrakhmanova, Zukhra Irdisheva /Kyzylorda Centre of Excellence, Nazarbayev Intellectual Schools, Kazakhstan/	
		Session Chair: Rosaliya Zaitova /NIS Kokshetau, Kazakhstan/	



Friday, 28 October, 11.10-12.40

Kazakh / Russian Language Session

Room 130

Network 8: Practitioner Research

POSTER SESSION 3. SHARING PROFESSIONAL KNOWLEDGE

How to motivate students to be creative, using contemporary information technology

Balnur Koshkinbayeva /NIS Astana, Kazakhstan/

Acquiring subject knowledge via various languages of instruction Batyrbek Khapirat

/NIS Astana, Kazakhstan/

Developing student giftedness through effective use of staged exercises

Akkogershin Abdanbayeva /NIS Astana, Kazakhstan/

Achieving continuity in the teaching of Kazakh Language and the History of Kazakhstan

Dina Ashimova /NIS Uralsk, Kazakhstan/

What barriers exist to the development of speech outwith class?

Amir Azhmukhambetov /NIS Kostanai, Kazakhstan/

How do social and personal projects develop ATL skills

Zhanar Kabysheva, Galymzhan Dabylov

/NIS Astana, Kazakhstan/

The introduction of multilingualism in grades five to nine in state comprehensive schools

Bayan Kainarova

/Zhalaiyra Middle School 6, Shengeldy, Almaty Oblast, Kazakhstan/

Session Chair: Irina Madeyeva

/Nazarbayev Intellectual Schools, Kazakhstan/



Friday, 28 October, 11.10-12.40

Room 1	131
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Kazakh / Russian Language Session Network 8: Practitioner Research

POSTER SESSION 4

How lesson study influences the development of teaching expertise

Saulet Mukanova

/NIS Petropavlovsk, Kazakhstan/

The importance of research projects in Mathematics for International Baccalaureate students

Nurgiza Nurusheva /NIS Astana, Kazakhstan/

Research on the development of composition skills through creative methods in primary school

Ardak Toktanova, Alemgul Taskimbayeva /International School of Astana, Kazakhstan/

The influence of formative assessment on the development of selfmanagement skills for high school students

Balgyn Tursumbayeva /NIS Kokshetau, Kazakhstan/

Psychological aspects of the humanistic paradigm in education

Meiramgul Tusupova

/NIS Karaganda, Kazakhstan/

Introducing change in school: the time requirements

Nurbolat Temirov

/NIS Pavlodar, Kazakhstan/

Developing effective History of Kazakhstan lesson plans on the basis of the Integrated Educational Programme

Arailym Magzumova /NIS Uralsk, Kazakhstan/

Session Chair: Bolat Nassygazy

/Nazarbayev Intellectual Schools, Kazakhstan/





Friday, 28 October, 13.40-15.10

Assembly Hall	Network 5: Early Childhood and	PRESCHOOL EDUCATIONAL PROGRAMMES
Simultaneous Translation	Primary Education	International perspectives on early childhood education and care Miho Taguma /Directorate for Education and Skills, OECD/
		Analysis of the systems of preschool nurture and education in Kazakhstan and the countries of the OECD Yeldos Nurlanov /Information Analytic Centre, Kazakhstan/ Sharapat Sultangaziyeva /Department of Preschool, Primary and Secondary Education, Ministry of Education and Science, Kazakhstan/
		Early childhood education and care: introducing innovations and preserving traditions Zhanar Abdildina /Centre for Educational Programmes, Nazarbayev Intellectual Schools, Kazakhstan/
		What we want from students and what students want from us: a glimpse into the future Pavel Luksha /Skolkovo School of Management, Moscow, Russian Federation/
		Session Chair: Svetlana Ispusinova /Nazarbayev Intellectual Schools, Kazakhstan/
Library	Network 2:	MANAGING CHANGE. SEMINAR
Simultaneous Translation	Leadership in Education	Transcending limits: Managing change in a VUCA world Peeter Mehisto /University College London, United Kingdom/
Small Sports	Network 11:	INCLUSIVE EDUCATION
Hall 1 Simultaneous Translation	Student Welfare and Pastoral Care	Putting inclusive education into practice: things that concern teachers Tolkyn Omarova /Nazarbayev University, Kazakhstan/
		An investigation into pupils with special educational needs perceptions of how inclusion in facilitated at their school Joseph Peter Goodman /NIS Karaganda, Kazakhstan/
		Diagnosing dyscalculia and mechanisms of giving support to students with difficulties in mathematics: the case of an English primary school Gulnar Ermagambetova /Centre of Excellence, Nazarbayev Intellectual Schools, Kazakhsta
		Session Chair: Svetlana Bogdan /Nazarbayev Intellectual Schools, Kazakhstan/



Friday, 28 October, 13.40-15.10

Small Sports Hall 2 Simultaneous Translation	Network 10: Assessment, Evaluation, Testing and Measurement	'We spent all year preparing for the UNT': The results of a survey among students of a college of medicine Aigul Sapargaliyeva /Asfendiyarova National Medical University, Kazakshtan/
		External summative assessment as a tool for functional literacy measurement Olga Mozhayeva, Leila Nurakeyeva, Fariza Imashpayeva /Nazarbayev Intellectual Schools, Kazakhstan/
		Trilingual assessment for a trilingual curriculum: developing examinations in three languages Cristina Rimini /Cambridge International Examinations, United Kingdom/
		Transformative Assessment: A Comprehensive Evaluation of the Integrated Criteria-Based Assessment Model David McHutchon /Nazarbayev Intellectual Schools, Kazakhstan/
		Session Chair: Sabyrzhan Madeyev /Center of Pedagogical Measurements, Nazarbayev Intellectual Schools, Kazakhstan/
Amphitheatre Kazakh / Russian Language Session	Network 9: Quality Assurance	SCHOOLING AND SCHOOL EFFECTIVENESS Measuring school effectiveness: is there an effective way of doing it? Aigerim Kopeyeva /Information Analytic Centre, Ministry of Education and Science, Kazakhstan/
		Global skills as an indicator of the success of contemporary education Assel Isakhanova
		/Eurasian National University, Kazakhstan/ The development of the private educational sector: the experience of Blue Sail Marina Eskarbayeva /Blue Sail School, Astana/
		Session Chair Gulnar Kurmanbayeva /Nazarbayev Intellectual Schools, Kazakhstan/



Friday, 28 October, 13.40-15.10

Small Library	Network 7:	TEACHER PROFESSIONAL DEVELOPMENT
Kazakh / Russian Language Session	Teacher Education and Professional Development	Assessment procedures in the context of the attestation of NIS staff members Samgat Bulebayev, Aigerim Umurzakova /Center of Pedagogical Measurements, Nazarbayev Intellectual Schools, Kazakhstan/
2) V		The influence of the discussion of research-focused on teachers' professional reflection Gulzhaina Imashpayeva /NIS Oskemen, Kazakhstan/
		Choosing test content in the assessment of professional development courses for teachers Kanysh Bibekov, Akmaral Zhumykbayeva /Center of Pedagogical Measurements, Nazarbayev Intellectual Schools, Kazakhstan/
		Professional development: problems implementing research of practice in Kazakhstan Gulzina Nagibova /NIS Uralsk, Kazakhstan/
		Session Chair: Dinara Aitbayeva /Nazarbayev Intellectual Schools, Kazakhstan/
Room 130	Network 1:	DISSEMINATING THE NIS EXPERIENCE
Kazakh / Russian Language Session	Educational Change and Innovation	Piloting primary education reforms in Kazakhstan: what the data tell us Assel Kambatyrova /Nazarbayev University, Kazakhstan/
		Disseminating the NIS experience to mainstream schools Dariga Nurkesheva /NIS Semey, Kazakhstan/
		Formative assessment in the context of the educational reform project Meiramkul Absatova /Center of Pedagogical Measurements, Nazarbayev Intellectual Schools, Kazakhstan/
		Session Chair: Aigul Kazzhanova /Nazarbayev Intellectual Schools, Kazakhstan/



Friday, 28 October, 13.40-15.10

Room 131	Network 3:	TOPICAL ISSUES FOR EDUCATIONAL REFORM: UPDATING THE
	Curriculum and	CURRICULUM CONTENT FOR MATHEMATICS. ROUNDTABLE
Kazakh /	Subject Disciplines	
Russian		Updating the content of education
Language		Kulyash Shamsidinova
Session		/Nazarbayev Intellectual Schools, Kazakhstan/
		The development of mathematics education in schools
		Mukhtarbai Otelbayev
		/Eurasian National University, Kazakhstan/
		How to select mathematics curriculum content
		Askar Dzhumadildayev
		/Insitute of Mathematics and Mathematical Modelling, Ministry of
		Education and Science, Kazakhstan, Kazakhstan/
		Session Chair: Toibek Aubakirov
		/Centre for Educational Programmes, Nazarbayev Intellectual
		Schools, Kazakhstan/



Friday, 28 October, 15.30-17.00

Assembly Hall	Network 6:	ORGANISING SUMMER SCHOOLS FOR STUDENTS
Simultaneous Translation	Teaching and Learning	Johns Hopkins University Center for Talented Youth: summer programs, the challenges of scale, and the benefits Simeon Brodsky /Center for Talented Youth, Johns Hopkins University, United States/
		The content and outcomes of overseas trips with students Talgat Bainazarov /NIS Karaganda, Kazakhstan/
		The experience of organising and conducting summer schools at NIS Oskemen Anar Akhmetova /NIS Oskemen, Kazakhstan/
		Students' views of overseas summer schools Alika Sarbasova /NIS Astana PhM, Kazakhstan/
		Prospects for the development of the NIS summer school programme Bakhyt Alibayeva /Nazarbayev Intellectual Schools, Kazakhstan/
		Session Chair: Esengazy Imangaliyev /Nazarbayev Intellectual Schools, Kazakhstan/
Library	Network 12: Educational	EDUCATIONAL RESOURCE DEVELOPMENT. SEMINAR
Simultaneous Translation	Resources	An exploration of the publishing process Jane Mann, Elaine Allwright /Cambridge University Press, United Kingdom/
		Session Chair: Gulnar Salmenova /Centre for Educational Programmes, Nazarbayev Intellectual Schools, Kazakhstan/



Friday, 28 October, 15.30-17.00

Small Sports Hall 1	Network 1: Educational Change	ACHIEVING INNOVATION IN KAZAKH SCHOOLS	
	and Innovation	Should NIS adopt Finland's innovative teaching philosophy to	
Simultaneous Translation		improve stress free academic performance? Sonali Sinha Roy	
rransiation		/NIS Shymkent, Kazakhstan/	
		One hundred steps for the implementation of President's five institutional reforms – achieving 79 steps of the national plan in	
		lower secondary schools Baknur Ziyabekov	
		/Nazarbayev University, Kazakhstan/	
		Complexity of ungraded schools in rural Kazakhstan: Teachers' understandings about how the curriculum can be best delivered to mixed age groups Marcelo Lopez Lara	
		/Nazarbayev University, Kazakhstan/	
		Once more with feeling Anna Phillips /NIS Aktau, Kazakhstan/	
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		Session Chair: Aigul Kazzhanova /Nazarbayev Intellectual Schools, Kazakhstan/	\
Small Sports	Network 10:	ASSESSMENT SYSTEMS	l
	Assessment, Evaluation, Testing and Measurement	Development of a regional large-scale assessment Central Asian Program for Student Assessment Julia Levin	
		/Kyrgyz Academy of Education, Kyrgyzstan/	
		Admissions tests in Kazakhstan and Kyrgyzstan: similarities and differences between Unified National Testing and National Scholarship Testing	
		Duishon Shamatov	
		/Nazarbayev University, Kazakhstan/	
		The results of pilot testing of NIS Astana PhM students on the evaluation of cognitive skills Olga Mozhayeva, Rustam Abilov	
		/Nazarbayev Intellectual Schools, Kazakhstan/	
		How to develop critical thinking through assessment? Maya Asanbayeva, Zhanar Amriyeva /NIS Astana, Kazakhstan/	
		Session Chair: Olga Mozhayeva	
		/Nazarbayev Intellectual Schools, Kazakhstan/ Discussant: Richard Phelps /National Association of Boarding Schools, United States/	



Friday, 28 October, 15.30-17.00

Amphitheatre Kazakh / Russian Language	Network 3: Curriculum and Subject Disciplines	Diagnostic sup of the implement Aidarbek Aitpu
Session		/NIS Atyrau, Ka
		Teaching throu historical think Sabyr Irgaliyev /NIS Uralsk, Ka
		The place and summative ass Kuat Tleuberdi /Center of Peda Schools, Kazak
		The developme context of teac Saule Akhmeto /NIS Astana, Ka
		Interdisciplina Almagul Shima /NIS Astana, Ka
		Session Chair: /Centre for Edu Schools, Kazak
Small Library	Network 7: Teacher Education	TEACHER PRO
Kazakh / Russian Language Session	and Professional Development	Innovative form Albina Bekkazi /NIS Атырау, К
SESSIOII		Testing as a m Tamara Lakhti /Center of Peda

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FESSIONAL DEVELOPMENT

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/Center of Pedagogical Measurements, Kazakhstan/

Mentors as the primary censors of the effectiveness of trainers' work

Sholpan Akhmetova

/Center of Pedagogical Measurements, Nazarbayev Intellectual Schools, Kazakhstan/

The capacity of the professional interview to improve the effectiveness of trainers' work

Maral Usenova, Farida Nametkulova

/Center of Pedagogical Measurements, Nazarbayev Intellectual Schools, Kazakhstan/

Session Chair: Zhanbota Kabdykarimova

/Centre of Excellence, Nazarbayev Intellectual Schools, Kazakhstan/

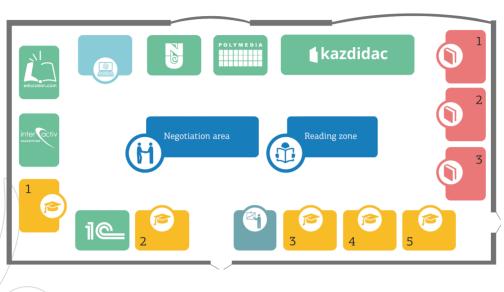


Friday, 28 October, 15.30-17.00

Room 131	Network 3: Curriculum and	TOPICAL ISSUES FOR EDUCATIONAL REFORMS: UPDATING THE CURRICULUM CONTENT FOR MATHEMATICS. ROUNDTABLE
Kazakh / Russian	Subject Disciplines	(CONTINUATION)
Language		Traditions and innovation in the development of educational
Session		resources
		Shynybekov Abdukhali
		/International University for Information Technology, Kazakhstan/
		A project on the structure and content of the updated mathematics curriculum
		Toibek Aubakirov
		/Centre for Educational Programmes, Nazarbayev Intellectual Schools, Kazakhstan/
		Session Chair: Toibek Aubakirov /Centre for Educational Programmes, Nazarbayev Intellectual Schools, Kazakhstan/



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