

# The improvement of the secondary education curriculum of Kazakhstan in the context of modern reforms

Third Report  
on the research collaboration between  
University of Cambridge Faculty of Education  
Nazarbayev University Graduate School of Education

October 2014

## **SHORT VERSION**

### **PART ONE**

## **Acknowledgements**

The research team gratefully acknowledge the support provided for this research by the Ministry of Education and Sciences of the Republic of Kazakhstan through Nazarbayev University Graduate School of Education.

They also acknowledge the ready and fulsome contributions to the research made by colleagues at all levels in the education system from the Ministry of Education and Science through Oblast and Rayun administrators and colleagues in Centres of Excellence and Pedagogic Institutes, but especially the generosity and hospitality of staff and students in the schools that were the main focus of the research this year,

The research team again very much appreciated in this third year of research the additional participation of colleagues from the Autonomous Educational Organisation, Nazarbayev Intellectual Schools (see list which follows).

Finally, they are extremely grateful for the support they have received from staff at Nazarbayev University and the Faculty of Education, in particular, Aida Sagintayeva, Kairat Kurakbayev, Aizhan Omarbekova, Aimzhan Iztayeva and Gulmira Smanova in Astana, and Chloë Gayer-Anderson and Laura Carnicero in Cambridge, not least for their part in the final editing and compilation of this report.

## **The research team**

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## **The research partnership**

This research arises out of a partnership between the University of Cambridge Faculty of Education, University of Pennsylvania (UPenn) Graduate School of Education and the Graduate School of Education at Nazarbayev University. The partnership is aimed at supporting the establishment of the Graduate School and ensuring that both its taught programmes and research meet international standards. University of Pennsylvania's focus is on teaching and research in higher education and University of Cambridge's focus is on schools. Although we have run research workshops, our main focus is on developing research experience and capacity by working collaboratively through every stage of the research process from project design through to publication and dissemination.

## **The purposes and focus of the research**

The context for the research is that of a major programme of educational reform in Kazakhstan aimed at schools. This programme includes:

- the extension of the period of schooling to 12 years
- the development of a new curriculum and reform of the structure of assessment;
- the implementation of a tri-lingual policy in schools;
- the development of a new raft of selective schools for talented and gifted children, the Nazarbayev Intellectual Schools with innovative curricula and assessment;
- the ‘translation’ of experience from these schools to mainstream schools
- a major programme of in-service education of teachers under ‘Centres of Excellence’; and
- an experimental programme of E-Learning

In the first year of the collaborative research programme we sought to understand and to describe the story of educational reform in Kazakhstan since independence in 1991; the main drivers of this reform and the main elements of the contemporary reform agenda. We concentrated at that stage on evidence gathered from official documents and key figures at the centre of the reform process.

In the second year of the research we turned this perspective on its head and sought to understand and to describe the way reform appeared from perspectives at the periphery of the system, including in particular, through the eyes of school directors, teachers and students in small rural schools and (to some extent) those in the local administrative system and in-service training institutions who were part of the process of ‘transmitting’ or ‘translating’ messages from the centre to the periphery.

The outcomes of this research are fully reported in our book, *Educational reform and internationalisation: The case of school reform in Kazakhstan* edited by David Bridges and published in September 2014 by Cambridge University Press.

In the third year of the research we have taken a number of central themes to do with curriculum and educational reform and pursued these mainly at school level but also in the Rayun and Oblast offices in the Orleu and Pedagogic Institutes and, where appropriate in the Ministry and official government documentation. These themes, around which the papers in Part Two of this report are organised, were:

- Curriculum ‘Translation’ (the development of educational innovations in secondary schools)
- Structure of school assessment
- Teacher professional identity
- School leadership in a changing educational environment
- School autonomy
- School leavers’ transfer to higher education

## **The conduct of the research**

In advance of the field research each small thematic team identified key research questions around which they hoped to gather data. In the field we divided into different groupings (not least to ensure

we had sufficient appropriate language competence in Russian and Kazakh) to go to different regions, but we agreed to gather data in those regions relating to all five themes. We conducted two periods of field research in five centres in different parts of Kazakhstan. Most of this was conducted through the medium of interviews, with school directors, individual teachers and small groups of them, pupils usually in small groups, officers at rayon and Oblast level and a few people from universities and pedagogic institutes. In total we conducted over 153 interviews/focus groups from 6 locations (2 locations from 2013 and 4 new).

The survey data presented within this report were drawn from two sources: a survey delivered, opportunely, online to those from around Kazakhstan attending a CPD programme and a paper version of the same survey offered to teachers at the various schools that formed part of the project's wider data collection. There were a total of 346 respondents to reflect all levels of teaching experience, most school locations and most school types.

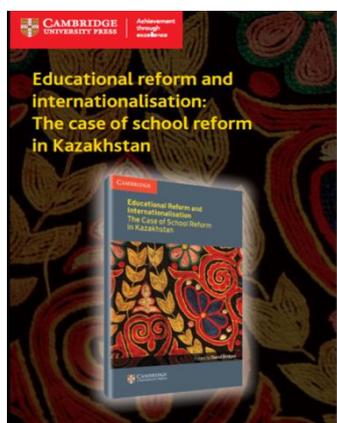
The survey originated in English and was translated into Russian to comprise five sections. The first of these collected participants' and schools' details. Next, teachers' general beliefs regarding assessment were examined across 30 questions that were then reduced through factor analysis to two scales: belief in assisting students; and belief in measuring student performance levels. The third part to the survey related to support of a student- versus teacher-orientated pedagogy. The fourth section went from the two previous sections emphasis on general attitudes towards assessment and pedagogy to specific attitudes on current national assessment practices in Kazakhstan. There was a final, short section on teacher identity. The data on teacher identity are not reported here other than how national assessment policy may or may not be in accord with a teachers' perceived mission.

With this substantial data set to hand (coded using NVivo and SPSS software) we could then interrogate the material and write about the issues that interested us.

## Translation and transcription

The English members of the team in particular relied on good quality transcription and translation of the interview material. This process seemed to go much smoother this year than in 2013, and we are grateful to colleagues at NU for ensuring that it proceeded without unnecessary delays

## Research publications: the book



We are especially pleased that Cambridge University Press published in September 2014 an edited collection of papers arising (for the most part) from our research on Educational Reform and Internationalisation: The Case of School Reform in Kazakhstan. This collection, which nicely reflects the collaborative nature of our work, was launched at the EERA conference in Porto and again at the October 2014 NIS conference in Astana.

The contents are as follows:

## **EDUCATIONAL REFORM AND INTERNATIONALISATION: The Case of School Reform in Kazakhstan**

Foreword *Shigeo Katsu (President of Nazarbayev University)*

Introduction *David Bridges (University of Cambridge Faculty of Education) and Aida Sagintayeva (Nazarbayev University, Graduate School of Education)*

### **PART 1: The recent history of educational reform in Kazakhstan**

Chapter 1 Educational Reform in Kazakhstan: The First Decade of Independence  
*Natallia Yakavets (University of Cambridge, Faculty of Education)*

Chapter 2 Educational Reform in Kazakhstan: ‘Entering the World Arena’  
*Natallia Yakavets (University of Cambridge, Faculty of Education) and Makpal Dzhadrina (Nazarbayev Intellectual Schools)*

Chapter 3 Educational Reform in Kazakhstan: The Contemporary Policy Agenda  
*Olena Fimyar, Natallia Yakavets and David Bridges (University of Cambridge, Faculty of Education)*

### **PART 2: Changing educational culture and practices**

Chapter 4 Implementing Radical Change: Nazarbayev Intellectual Schools as Agents of Change  
*Kulyash Shamshidinova (CEO, Autonomous Education Organisation, Nazarbayev Intellectual Schools), Nazipa Ayubayeva (Deputy CEO, Nazarbayev Intellectual Schools and University of Cambridge Faculty of Education) and David Bridges (University of Cambridge, Faculty of Education)*

Chapter 5 Centres of Excellence: Systemwide Transformation of Teaching Practice  
*Fay Turner, Elaine Wilson (University of Cambridge, Faculty of Education), Svetlana Ispussinova (Nazarbayev Intellectual Schools, Kazakhstan), Yermek Kassymbekov, Assel Sharimova and Bakhty Balgynbayeva (Centre of Excellence, Kazakhstan), Simon Brownhill (University of Cambridge, Faculty of Education)*

Chapter 6 The Culture and Practice of Assessment in Kazakhstan: The Unified National Test, Past and Present  
*Liz Winter (University of Cambridge, Faculty of Education), Cristina Rimini (Cambridge International Examinations), Arailym Soltanbekova and Madina Tynybayeva (Nazarbayev Intellectual Schools)*

Chapter 7 The Culture and Practice of Assessment in Kazakhstan: an Alternative Model and the Future  
*Liz Winter (University of Cambridge, Faculty of Education), Cristina Rimini (Cambridge International Examinations), Arailym Soltanbekova and Madina Tynybayeva (Nazarbayev Intellectual Schools)*

Chapter 8 Three in One? Trilingualism in Policy and Educational Practice

Peeter Mehisto (Institute of Education, University of London), *Assel Kambatyrova, (Nazarbayev University, Graduate School of Education)* and *Khalida Nurseitova (Gumilyov Eurasian National University / Nazarbayev Intellectual Schools)*

Chapter 9 ‘Soviet’, ‘Kazakh’ and ‘World-Class’ in the Contemporary Construction of Educational Understanding and Practice in Kazakhstan

*Olena Fimyar (University of Cambridge, Faculty of Education)*

Chapter 10 Towards Inclusive Education: Swimming Against the Tide of Educational Reform

*Martyn Rouse (University of Aberdeen), Natallia Yakavets (University of Cambridge, Faculty of Education) and Anel Kulakhmetova (University of Cambridge, Department of Development Studies)*

Chapter 11 The Role of School Directors in Educational Reform in Kazakhstan

*David Frost, Olena Fimyar, Natallia Yakavets (University of Cambridge, Faculty of Education) and Darkhan Bilyalov (Nazarbayev University, Graduate School of Education)*

Chapter 12 The Role of the Teacher in Educational Reform in Kazakhstan: Teacher Enquiry as a Vehicle for Change

*Colleen McLaughlin (University of Sussex and University of Cambridge, Faculty of Education), Ros McLellan and Michael Fordham (University of Cambridge, Faculty of Education) with Andrew Chandler-Grevett and Alison Daubney (University of Sussex)*

### **PART 3: The international and intranational translation of educational policy and practice**

Chapter 13 Lost – and Found – in Translation? Interpreting the Processes of the International and Intranational Translation of Educational Policy and Practice in Kazakhstan

*David Bridges (University of Cambridge, Faculty of Education), Kairat Kurakbayev and Assel Kambatyrova (Nazarbayev University, Graduate School of Education)*

Chapter 14 Transferability and the Nazarbayev Intellectual Schools: Exploring Models of Practice Transfer

*Alan Ruby (University of Pennsylvania) and Colleen McLaughlin (University of Sussex and University of Cambridge, Faculty of Education)*

Chapter 15 Translating Pedagogical ‘Excellence’ into Three Languages or How Kazakhstani Teachers ‘Change’

*Olena Fimyar (University of Cambridge, Faculty of Education)*

### **The Way Forward**

Chapter 16 Towards the Next Stages of Reform in Kazakhstan

*Alan Ruby (University of Pennsylvania) and Aslan Sarinzhypov (Nazarbayev University and Minister of Education and Science, Republic of Kazakhstan)*

## Synopses

The following section contains synopses of the research papers.

### **Taking change to scale: the reception and realisation of educational policy in NIS partner schools**

Olena Fimyar, Michael Fordham, Aizhan Omarbekova and Nazira Tuleuova

Drawing on the critical strand of literature on organisational learning (e.g. Driver 2002; McKinlay and Starkey 1998; Niesche 2011 and Thomson 2014), studies of ‘scaling up’ or extension of educational reform (Dantow, Hubbard and Mehan 2002, Elmore 1996) and policy ‘enactment’ research (Ball, Maguire, Braun 2012) we seek to understand how educational reform is taken to scale in 35 NIS partner schools in Kazakhstan. The particular questions we aim to address are: 1) What are the aims of the scaling up programme in Kazakhstan, commonly referred to as the ‘translation of NIS’ experience (Rus. transliatsiya opyta NiSh)? 2) How it is understood by the practitioners (teachers and administrators) in the NIS partner schools? 3) What tentative propositions can be offered to account for different understandings of the translation process in the programme of translation? To address these questions we use documentary, online and interview data on the process of ‘translation of NIS experience’. In advancing our argument about three different ways of understanding the translation processes we move beyond the prescriptive models of organisational learning (cf. Morgan 1997, Senge 2006, Fullan 1985) and attend to context-specific ways and forms of whole-school learning, understanding which, as we argue, is a key for sustaining the momentum for reform.

### **Leading schools in a time of change in Kazakhstan**

Natallia Yakavets, David Frost, Kairat Kurakbayev and Aidar Khoroshash

This report examines the scope for initiative and independent action that lies with school principals in Kazakhstan with a particular focus on capacity building approaches. The paper draws on findings from a study of 20 schools operating in different social settings in six geographical locations within Kazakhstan. Data is drawn from interviews with school principals, deputies, and teachers (local and international) and with parents, representatives of Boards of Trustees in some schools, 10 and 11 grades students in schools, senior managers of Nazarbayev Intellectual Schools, officials in the local educational departments, rectors and deans at seven different HE institutions, and the first year students in those institutions.

The report suggests that differentiated capacity building strategies are necessary if innovations are to be implemented across all schools. It offers explanations for the challenges involved in making school reform effective. Key issues focus on leadership in relation to school cultures, trust-building, communication and collaboration. The role of continuing professional development provision is also considered.

The report first offers conceptual building blocks which inform our understanding of leadership and school improvement. The research project from which the empirical data is drawn is outlined and the results are presented under three broad headings (i) perceptions of leadership; (ii) understanding the practice of leadership; and (iii) ‘focus on capacity building’. The report goes on to explore the relationship between a school’s capacity and the challenge of educational reform.

## **An investigation of teacher identity in Kazakhstan from different perspectives:**

### **(i) Teacher Identity in a Changing Educational Landscape in Kazakhstan: The Explanatory Efficacy of Beijaard, Meijer and Verloop’s (2004) Framework**

Ros McLellan and Liz Winter

This paper takes Beijaard, Meijer and Verloop’s (2004) framework of the necessary characteristics of teacher identity and considers its usefulness in the context of Kazakhstan. Aspects considered include the professional landscape and impact on the individual teacher as they construct a number of sub-identities considered salient to the context in question, and the notion of identity as an on-going and agentic process. Professional knowledge in this framework is considered within four quadrants relating to public vs. private and collective vs. individual dimensions of knowledge constructs. Data were gathered from a total of 153 interviews, 65 of which were transcribed for further analysis. These were conducted with a range of teachers, principals, students and higher education professionals across 6 locations in Kazakhstan. A wide number of themes emerged that related to the four characteristics identified in the framework and these are outlined in detail. Professional landscape issues include pay, status, attractiveness of the profession to youngsters, loss of professionalism in changing contexts since independence, the paperwork and monitoring burden, and problematic aspects of the curriculum and associated assessment. The most influential sub-identity related to subject taught and associated pedagogy but other sub-identities related to career stage, role of learning related to pedagogy and achievement, and aspects other than teaching, such as upbringing, were also important. These are then considered in relation to the four-quadrant model and this was found to be highly useful in characterising teacher identity in Kazakhstan. A number of implications are outlined for policy-makers and other stakeholders in the education system.

### **(ii) Understanding gender constructs in Kazakhstani teachers’ professional identity**

Aimzhan Iztayeva

Designed as a pilot study based upon a large set of qualitative data collected as a part of a Kazakhstan-wide project conducted by the Nazarbayev University Graduate School of Education in collaboration with the Faculty of Education of Cambridge University, the report addresses the influence of gender constructs on teachers’ professional identity. The report presents gender-differentiated statistics regarding teaching in Kazakhstani labour market against the backdrop of historically embedded patterns of gender inequality in Kazakh to suggest that teaching in Kazakhstan occurs in a “gendered space”, and analyses interviews by incorporating gender to the teachers’ identity framework designed by Beijaard et al (2004). The data demonstrates the way female teachers utilise gender discourse of “teaching as women’s work” to explain their career choices and interaction with surrounding context, while gender in general appears to significantly impact the construction of teachers’ professional identities by determining certain roles, functions and expectations of teachers depending on their sex. Given such findings, it becomes particularly important to recognize the

embodiment of gender in the construction of teachers' professional identity and, hence, reconsider the neutral application of the concept, as well as to undertake appropriate policy measures in attempt to deconstruct gender discourses that operate upon teacher identity.

### **(iii) The purpose of teaching in a time of reform: identifying with pedagogical traditions in Kazakhstan**

Michael Fordham

Teacher identity has tended in the past to fall under the remit of the psychology of education with numerous theoretical models produced in this field which provide frameworks in which to make sense of the identity of teachers (Beijaard et al. 2004; Korthagen 2004; Akkerman & Meijer 2011). Insights from other disciplines – particularly philosophy and history – have, however, tended to be overlooked in existing attempts to theorise models of teacher identity. It is thus my intention in this paper to address two aims. First, this paper seeks to provide an account of teacher identity in Kazakhstan, particularly to address the relationship between identity and the reform process. Secondly, I explore how insights from the philosophy and history of education – particularly the notion of a 'pedagogical tradition' – might augment, and to some extent challenge, existing psychological theories of teacher identity.

### **(iv) The value of dialogic approach in understanding international teachers' identity in Kazakhstan**

Olena Fimyar

This paper applies Bakhtin's dialogic approach (Bakhtin, 1981, 1986; and Akkermann and Mejer 2011) and Gee's (2001) discussion of the four types of identity to the study of international teacher identity in Kazakhstan. The paper begins by setting the context of NIS schools as advertised in the recruitment website inviting international teachers to 'educate the country's best and brightest'. The paper then describes the context of research and the search for the most suitable theoretical approach. The paper argues for the value of the dialogical approach as more appropriate to account for the process of negotiating one's identity inter-actionally through encounters with different contexts, actors and roles. The dialogical approach is viewed as having a greater value in comparison to psychological approaches, which focus on the individual characteristics of various groups of teachers rather than on the meaning produced dialogically in different settings.

### **Constructs of school autonomy in the discourse and practice of school reform in Kazakhstan**

Aizhan Omarbekova, Kairat Kurakbayev, and David Bridges

Notions of 'autonomy' feature widely in official papers and in discussions about school reform in Kazakhstan. This paper discusses the notion of autonomy from perspectives of school leaders, teachers, boards of trustees and parents. The purpose is to trace 'policy rationalities' and understandings of different stakeholders of the school autonomy reform.

In the first part of this paper we examine some of different concepts of school autonomy developed internationally and in recent educational history, distinguished by reference to (among other things)

(i) who rules the autonomous school (ii) what spheres of autonomy are permitted (iii) what forms of accountability are maintained, and, importantly, (iv) the underlying normative or ideological framework. On this basis we distinguish three traditions or models of the autonomous school: the neo-liberal/ corporate model, the local community model and the professional model. In the second part of the paper we turn to the ways in which the concept of school autonomy is being understood and expressed in the official discourses of educational reform in Kazakhstan.

Finally, in the third part of the paper, we draw on 153 extended interviews and observations conducted in schools in five regions of Kazakhstan during the Spring of 2014 to consider how school autonomy is understood or constructed by, in particular, school principals and teachers, before concluding by indicating some of the policy choices that lie before the government and people of Kazakhstan, or indeed in any other educational policy context.

### **From school to university: understanding student transition to tertiary study in Kazakhstan in the context of 12-year schooling model**

Kairat Kurakbayev, Aizhan Omarbekova and David Bridges

With the global transformation in the secondary and higher education curricula, research on transition from school to tertiary education has gradually increased in recent years. Kazakhstan, a fast-growing economy in the post-Soviet Central Asia, is investing great effort and resources to adapt recent international trends in the academic system so that the nation's young population could attain quality educational experience as they move from school to university. Such reform initiatives as *European 12-year schooling model*, Bologna Process' *life-long learning*, *'Foundation Programme'*, and the *German dual education system* have been hailed and endorsed by policy makers as important conditions for social and economic development of the nation. This paper explores the State's current policy and rationale for the decision to move from a post-Soviet system of an 11-year schooling model to European 12-year model of secondary education. It then examines academic and social factors that affect the student transition to tertiary study from the perspectives of school leavers and first-year university students. The research adopts a qualitative methodology and analyses in-depth and focus group interviews with school-based students and first-year university students as well as voices of policy makers and teachers. The paper concludes with a brief discussion of some main academic and social challenges of the student transition and provides clear implications for ensuring effective student transition.

### **When teaching, learning and national assessment policy clash: an examination of general and specific attitudes that create dissonance in teachers' mission**

Liz Winter, Duishon Shamatov, Daniel Torrano and Aigul Yessengaliyeva

This is an empirical paper that sets one particular form of national assessment (the UNT) against the wider picture of what 356 teachers from around Kazakhstan say they set out to achieve for their pupils during school. The dataset upon which the work is based uses data collected in two phases: first application of a questionnaire to teachers undergoing a professional development programme (Jan 2014); and reapplication of the same questionnaire in mainstream secondary schools across several regions in Kazakhstan (Feb-May 2014).

The research adopts a quantitative methodology and uses a survey method followed by factor analysis and cluster analysis of data. The first element of the dataset is a collection of teachers' general

attitudes towards assessment that return the range of where teachers see themselves in terms of meeting their own definitions of students' needs. This uses a scale well-recognised by literature in the UK and elsewhere (James & Pedder, 2006), translated into Russian, to examine this topic for the first time in a post-Soviet context. Next, part of the TALIS (OECD, 2008) international scale to collect teachers' beliefs regarding a student- or teacher-centred learning style was applied. In conjunction, these attitudes and beliefs are related to inform on whether satisfactory achievement of any overall teaching mission (Korthagen, 2004) is seen as possible or not.

Clusters of like-minded groups based on career stage became evident through analysis. This indicated shifts towards more student-centred beliefs and lower regard for the national summative assessment practices as teaching experience increased. There were a notable number of neutral responses that, it is hypothesised, may reflect confidence in stating professional opinions.

Although the paper reflects what is happening in Kazakhstan, it has more general standing in challenging how nationally imposed assessment policies affect professionals. Professionals may or may not find certain tests or examinations in concordance with their personal schema of a fair and appropriate assessment mechanism. It set out to describe how national assessment policy relates to general attitudes and beliefs and concluded that in Kazakhstan there is considerable misalignment in how assessment is construed by teachers compared to what they are being asked to work towards in terms of current practices.

The final part of the paper includes recommendations towards achieving better alignment of teachers' mission and national assessment. These are based on the patterns within the data that exposed career-stage effects as well as across-the-board strategies.

