

On constructs and the construction of teachers' professional knowledge in a post-Soviet context

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Abstract

The paper examines the understandings ('constructs') of teachers' professional knowledge and its sources that underpin current practice in initial teacher education in Kazakhstan and in particular the way in which *pedagogika* contributes to these. This stands in contrast with the two recent professional development programmes: the Collaborative Action Research and Centre of Excellence, which are focused on interactive teaching and learning, reflective practice, classroom action research and teachers' collaboration. Drawing on empirical data collected over the four years, the paper illustrates the ways in which professional knowledge and professional preparation of teachers in pre-service institutes are constructed within the Kazakh and Soviet pedagogical traditions, albeit with some references to international scholars. Teachers' professional knowledge is formed from pedagogic theory mediated by academic staff in what is seen by many of those from outside and inside the country who are engaged in educational 'reform' in Kazakhstan as a largely didactic style with little or no critical engagement or exploration of the implications for practice. By contrast, recently

introduced in-service education programmes for teachers place an emphasis on reflective practice, teachers as researchers and collaborative learning as sources for teachers' professional knowledge. The paper highlights this contrast and begins to explore what happens when these two different approaches to the construction of teachers' professional knowledge encounter each other.

Keywords: teacher professional knowledge; pedagogika, practicum, theory-practice gap; Kazakhstan

Introduction

The developments that provide the setting for this research in Kazakhstan lie at the intersection of three global and regional narratives that will be familiar to readers of this journal. The first is the story of the constant reframing and revision of teacher education over the last fifty years -- a story that encompasses professional and theoretical debate about what is required for the preparation of teachers: the balance between subject knowledge and professional knowledge; the nature and role of educational theory; the relationship between theory and practice; the respective roles of schools teacher training colleges and universities in the preparation of teachers etc. (Darling-Hammond 2016; Darling-Hammond and Richardson 2009). The second narrative, as educational policy and practice become more internationalised, and superficially at least more globalised, is one about policy borrowing and the transfer of educational policy and practice across national and cultural borders, in response perhaps to ideological imperatives (of which the World Bank has been a major source) or the failings of creaking systems (Silova and Steiner-Khamsi 2008; Steiner-Khamsi et al. 2009; Silova 2009; Musset 2010). The third narrative concerns the political, economic, social, cultural and indeed educational adjustments that countries of the former Soviet Union

have had to make over the last 25 years or so following the collapse of the Soviet system. The Soviet is not however, co-terminous with the sphere of Russian influence which in many cases, including that of Kazakhstan, pre-dated the Soviet and continues to be respected by people many of whom identify as ethnically 'Russian'.

The history of education in Kazakhstan over the last twenty-five years lies at the intersection of all three of these narratives and helps us to understand how these larger themes inter-relate and how they play out in practice (see Bridges 2014; Yakavets 2014; Yakavets and Dzhadrina 2014). This paper shows how established approaches to teacher education are being challenged (but also defended); it shows how international practice is being introduced (in the case of in-service teacher education with support from an international university); and it shows some of what happens when teachers and teacher educators find themselves caught between the seductive rhetoric of international approaches to teacher education and established and institutionalised Soviet models.

The authors of the paper have between them personal experience of both the Soviet model of teacher training and of many years of the evolution of what might be identified as an 'international' model in the UK and elsewhere (granted that the 'international' is not by any means a uniform model). As researchers their concern is to understand and describe the contrasts and the issues they raise rather than to stand in judgement over them. In particular, Kazakhstan at this stage in its development provides an interesting insight into what happens when the two systems encounter each other.

This paper presents, then, an account of a research study on developments in teacher education in Kazakhstan. It focusses in particular on how the pedagogic institutions prepare future teachers to teach at secondary schools in Kazakhstan, and on recently introduced programmes of in-service teacher education carried out, for the most part, through an

‘Autonomous Educational Organisation Nazarbayev Intellectual Schools’ known as the Centre of Excellence, though this works through centres attached to elite schools in each region (see Turner et al 2014). This is an attempt to portray the way(s) in which the knowledge and skill requirements for teachers’ professional lives are understood and developed in Kazakhstan. It is, more particularly, about the views of these requirements (the ‘constructs’ in the title) that are reflected in both the pre-service and in-service education of teachers (i.e. in the ways in which these are learned and ‘constructed’).

The article is divided into several parts. In the first part, the research context is outlined. The second part reviews the research literature on the professional knowledge of teachers and develops three research questions. The next part presents a brief description of the research project and composition of the research team. The following section explains research design and empirical evidence used in this paper. Data analysis procedures (including qualitative and quantitative data) are outlined in section five. The subsequent findings are organised around research questions. The final part offers some thoughts on the future of teacher education in Kazakhstan.

Research context

Kazakhstan has inherited its education system from the USSR. Soviet education was a highly centralised and unified system, in which the Ministry of Higher and Secondary Specialised Education of the USSR in Moscow strictly determined curricula, textbooks and methods of teaching across all fifteen republics. The teacher preparation curriculum in the institutes consisted of three interrelated strands: the special disciplines (e.g. mathematics, etc. – constituted 70 per cent of the total course of study); the social disciplines (Marxism-Leninism and late psychology and sociology); and the pedagogical disciplines (e.g. pedagogy, teaching

methods particular to a single field) (Kerr 1991, 334). It is usually acknowledged that: ‘the curriculum policy on the whole was highly prescriptive and indoctrinatory’, and generally, teachers who followed a prescriptive programme of instruction did not ‘develop their abilities to think critically and reflectively’ (Matyash 1991, 8). Furthermore, Matyash (1991, 5) pointed out ‘the problem of reconciling a long history of authoritarian methods of teaching with the newly emerging social reality where critical thinking and reflexivity are desired educational objectives’.

Educational reform in Kazakhstan since the country’s independence in 1991 has been labelled a ‘*post-socialist education reform package*’ (Silova and Steiner-Khamsi 2008,1), by which is meant a set of policy reforms symbolising the adoption of Western education values and including such ‘*travelling policies*’ as student-centred learning, curriculum standards, decentralisation of educational finance and governance, privatisation of higher education, standardisation of student assessment, liberalization of textbook publishing, and many others’ (Silova 2011, 3). However, as McLaughlin and Ayubayeva (2015, 56) argue, ‘it took Kazakhstan more than two decades to build its own vision of how and why the education system should be reformed, opening new waves of questioning, frustration and emotions’. In general, ‘travelling policies’ or ‘policy borrowing’ do not easily transfer and/or translate into a new cultural context. Elliott (2014) claims that: ‘far-reaching changes at the macrosystemic level are unlikely to be speedy translated into changes in proximal processes (e.g. classroom practices), especially where these have developed over many years’.

There are some good reasons for exploring the construction and reconstruction of teacher professional knowledge at this time in the history of education in Kazakhstan. The education system is going through a period of rapid change: it is a major experiment in what is seen by government at least as innovation and reform. A new skills-based curriculum, which includes new pedagogies and a new assessment system, is being introduced into all schools following

its 'piloting' in a specialised network of schools under the auspices of the Autonomous Education Organisation Nazarbayev Intellectual School / AEO NIS (Shamshidinova et al. 2014). These new practices and curricula were developed in partnership with several international partners. As Ruby (2013) argues, the deliberate development of multiple strategic partnerships allowed NIS to avoid the risk on dependence on one opinion.

The first source for constructs of teachers' professional knowledge has been developed as a result of two recent major initiatives that are led by AEO NIS. These are the Collaborative Action Research (CAR) project (which is one strand of the Integrated Programme of Development initiative) and the Centre of Excellence (CoE) Programme, both designed by AEO NIS in collaboration with the University of Cambridge Faculty of Education. While the CAR project is relatively small, involving a few groups of teachers within a network of NIS, the CoE Programme by contrast is large-scale, aiming to reach 120 000 mainstream teachers – about one third of the total teaching force -- by 2020 (Wilson et al., 2016, 26). It is designed to equip teachers to educate citizens of the twenty-first century not only through developing skills and knowledge of modern pedagogical practices but also by explicitly addressing beliefs, values and attitudes to help bring about deep changes in practice (McLellan 2015, 16; Turner et al. 2014). Both programmes promote practices such as classroom action research, reflective practice, collaborative learning and networks of teachers, which are part of the contemporary repertoire for teacher education in many parts of the world.

The CAR project was designed to last for three years (2012-2015) and involved a series of workshops with NIS teachers to introduce the idea of collaborative action research and develop inquiry skills, developing resources accessible from an electronic platform and supporting Teacher Research Coordinators (TRCs) in their on-going work through regular

Skype and email exchange (McLellan 2015, 16; McLaughlin and Ayubayeva 2015, 54/5). The CoE Programme is realised by a three-levels training process. At all three levels the pattern is of one month of face to face training, one month of school based work, and then another month face to face in which teachers are primarily involved in reflecting on their experience in schools and planning the next stage of their development. Level 3 focusses on the role of the individual teacher in the classroom, level 2 on the teacher as a leader in the school community, and level 1 on the teacher at the centre of wider professional networks. The CoE level courses carry an increased salary upon successful completion (30% for level three, 60% for level two and 100% increase for those completing the most advanced level, level one). CoE has now opened branches in all regions of Kazakhstan where CoE trainers deliver the programme. Furthermore, in order to reach as many teachers as possible in a short timescale, trainers from the existing organisation with responsibility for continuing professional development, the National Centre for Professional Development – Orleu – have also been trained alongside CoE trainers to deliver the CoE programme.

Thus, the way in which teachers' professional knowledge is conceived and developed through the CAR and CoE Programmes is one of the key points of reference of this paper.

While, in-service teacher education in Kazakhstan has been undergoing reform initiatives, pre-service teacher education is the area which has been least touched so far by the changes in Kazakhstan, but is a top priority for the next stage of reform.

Currently there are two major routes for teacher preparation. One is vocational and technical post-secondary education in a college (Technical and Vocational Education and Training - TVET) taken after finishing a so-called 'incomplete secondary education' (Grade 9) including 3 years and 10 months and/or 4 years studies. The second route is through teacher training at a Pedagogical University and/or Institute, leading to a Bachelor's or Master's

degree after completing secondary education (Grade 11). Pre-service teacher education is normally four years full-time studies or five to six years – part time.

The programmes currently on offer in the Pedagogic Institutes still follow a traditional Soviet pattern that tended to emphasise subject-knowledge teaching over the development of teaching skills. In general, a four year course includes: subject study, *pedagogika*, *didactika*, *methodika* and a teaching *practicum* as well as the study of a particular subject and a multitude of compulsory and elective courses contributing to a ‘general education’. This model of pre-service teacher education is the second point of reference in this paper. If this way of constructing the professional knowledge requirements of teachers is to be regarded as inadequate, there is at least a preliminary obligation to understand what it is that is being discarded.

This paper aims to explore what constructs (or understandings) of teacher professional knowledge have been developed in two contexts of teacher education in Kazakhstan (i.e. pre-service and in-service), and a particular point of interest of this paper is beginning to observe what happens when these two different constructs of teachers’ professional knowledge are brought together.

Conceptualising ‘teachers’ professional knowledge’

On the basis of an extensive review of articles discussing teachers’ professional knowledge that were published over a 20 year period (1988-2009) in *Teaching and Teacher Education*, Ben-Peretz (2011, 8) concluded, that ‘over time the term *teacher knowledge* was expanded and broadened significantly’. Contemporary requirements place more demands on teachers’ professional life and teachers’ knowledge has been extended ‘from knowledge of subject

matter, curriculum and pedagogical content knowledge, to include general themes like global issues and multiculturalism' (Ben-Peretz 2011, 8).

Shulman's (1986) widely cited categorisation of teacher knowledge has been criticised for focusing more on knowledge structure than 'knowledge construction' (Edwards and Ogden 1998) and this is the focus of this paper. Edwards and Ogden (1998, 737) write that 'we shall pursue the notion of the wisdom of practice by shifting the emphasis from the "what" of teacher knowledge to include the "how" of its construction in the community of practice in [...] schools [and] in emphasising both the "what" and "how" we hope to capture what is constructed in conversations and indicate what is perhaps lost in an emphasis on the discursive construction of teachers' knowledge in initial teacher training' (Edwards and Ogden 1998, 737).

There has been extensive research on the problem of translating theoretical knowledge about good teaching into practice (Korthagen et al., 2008). This is a topic which has featured prominently in the literature on teacher education over quite a long period.

In 'The relation of theory to practice in education' John Dewey (1904) claimed that 'without argument [...] adequate professional instruction of teachers is not exclusively theoretical, but involves a certain amount of practical work as well. The primary question as to the latter is the aim with which it shall be conducted' (Dewey 1904, 9). Dewey understood that, although theory had a certain priority for the education of teachers, it would be deadly if the theory were taught absent immersion in contexts and conditions of practice (Shulman 1998, 523). He advocated a special kind of professional education, in which a curriculum of theory-in-practice dedicated to the understanding of theory-for-practice was at its heart (ibid.). Theory was paramount, Dewey asserted, yet, it could not be understood in a purely academic setting. As Shulman (1998) claims:

Practice serves as a major vehicle for testing the validity and efficacy of theory, both for learning a profession and for developing theories more generally. Practice is a significant source of the evidence on which new theory development can be based. Learning from practical experiences is the major contributor to creating and testing theories of practice, which are the defining constructs of professional knowledge and learning' (p.523).

The empirical evidence suggests that in addition to assimilating theoretically-based knowledge of the kind traditionally taught in university, student teachers also need to incorporate knowledge derived from experiential and practical experiences located in the realities of classrooms and schools (Darling-Hammond 2008; Nilssen and Solheim 2015); and of course many pre-service programmes are designed precisely to offer both kinds of learning (Orchard et al. 2016). However, the gap between theoretical and practical knowledge becomes apparent to most students as soon as they enter real classroom settings as teachers (Hascher et al 2004; Cheng, Cheng and Tang 2010; Dewey 1904; Darling-Hammond 2008; Elliott 1989). There is, in particular, a 'transfer problem' when student teachers assume that theory can be translated more or less directly into practice (Nilssen and Solheim 2015), or see theory as a 'model of transmission' (Clandinin1995; Schön 1983; Sjølie 2014). However Darling-Hammond (2008) claims that student teachers understand both theory and practice differently if they take coursework concurrently with fieldwork or practical experience in the classroom. In the research which is reported below, one of the contrasts that are drawn is between the ways in which the theory/practice relationship is constructed in the two teacher education systems.

Not only the theory-practice gap affects the construction of teachers' knowledge but also educational borrowing or 'travelling policy' plays a significant role in it. Indeed, travelling

policies raised an important question: how do different educational traditions impact on what constitutes teacher professional knowledge across cultures and societies? Central to this discussion is the understanding of pedagogy.

Ko and Sammons (2010) state ‘pedagogy is contentious term’. Robin Alexander (2009) explains that ‘in the Anglo-American tradition, pedagogy is subsidiary to curriculum, sometimes implying little more than ‘teaching method’. The continental view of pedagogy, especially in northern, central and eastern Europe, brings together within the one concept the act of teaching and the body of knowledge, argument and evidence in which it is embedded and by which particular classroom practices are justified (Alexander 2004, 10). Furthermore, Alexander describes that ‘at a typical Russian pedagogical university, pedagogy encompasses: “general culture” comprising philosophy, ethics, history, economics, literature, art and politics; together with elements relating to children and their learning – psychology, physiology, child development, child law; and as third group, aspects relating to the subjects to be taught, or *didaktika* and – linking all the elements – *methodika*, or ways of teaching them’ (Alexander 2004, 10). The key aspect that is missing in continental debate about education, according to Alexander, is ‘the rich discourse surrounding the idea of curriculum, which in Britain and the United States is more fully developed’ (2004, 11). Taking in consideration the fact that ‘pedagogy is shaped by national culture and history, and by the migration of ideas and practices across national borders, as well as by more immediate practical exigencies and constraints such as policy and resources’ (Alexander 2009, 5), it is important to develop some clarity about a framework of pedagogy for studying it. Alexander (2009, 2008) suggested a holistic, socio-cultural analytic framework that many studies have now sought to apply in studying the mediating influences that play a part in the development of policy and practice. The framework includes three parts:

1. “*Pedagogy as practice*” - deals with the observable act of teaching;

2. “*Pedagogy as ideas*” - deals with the ideas (theories, values, evidence and justifications) which inform it;
3. Pedagogy that deals with the *macro-micro relationship* which links classroom transaction to national policy via the curriculum (2009, 5).

Siraj-Blatchford et al. (2010) warn that this is not the only legitimate analytical framework to adopt in the study of pedagogy, and ‘while holistic analysis may be considered to provide a necessary and important critical tool for engagement with national policy it is arguably a much more focused approach that is required to support the day-to-day development of learning and teaching for practising professionals’ (p.5). Despite its criticism this framework seems useful in capturing important aspects of teacher professional knowledge in Kazakhstan. No less important is a definition:

Pedagogy is the observable act of teaching together with its attendant discourse of educational theories, values, evidence and justifications. It is what one needs to know, and the skills one needs to command, in order to make and justify the many kinds of decisions if which teaching is constituted (Alexander 2009, 5)

Alexander (2009, 11) notes that ‘curriculum is just one of its domains, albeit a central one’.

This review shows clearly that the concept of ‘teacher professional knowledge’ and particularly ‘knowledge construction’ is somewhat more complex than may be recognised by those who reduce it only to relationship between theory (including knowledge of subject matter, curriculum and pedagogical content knowledge) and practice in the context of teacher education. It brings issues about the relationship between theory and practice, into consideration of the sort of knowledge that is required by teachers and its sources and, via these and other considerations into the underlying professional and societal culture that

underpins all these considerations, and which, incidentally, makes any simple minded approach to ‘policy borrowing’ problematic.

These considerations set the scene for the research that is reported here. In setting out to explore constructs of teacher professional knowledge in Kazakhstan the researchers posed the following questions:

- 1) What understanding (construct) of the professional knowledge requirements underpins current practice in pre-service teacher education in Kazakhstan?
- 2) What construction of teachers’ professional knowledge underpins the work of Nazarbayev Intellectual Schools (NIS) and the Centres of Excellence in-service educational programmes?
- 3) How compatible are these two constructs of teacher professional knowledge?

Research project and the team

This paper reports on a cross-cultural collaborative research project conducted over a period of four years (2012-2015). The research collaboration focussed on the process of on-going education reforms in Kazakhstan, particularly on school-level, including reform of curriculum and teacher education. It was funded by the Ministry of Education and Science of the Republic of Kazakhstan. Part of the rationale for this collaboration was to build research capacity among early career researchers in Nazarbayev University Graduate School of Education, though some of these already had doctorates from Kazakhstani universities or master’s level qualifications from outside Kazakhstan (see Bridges 2017, 164). The cross-cultural team was very much an interdisciplinary in its composition. The team from the Cambridge end included two (social) psychologists; a policy sociologist with a disposition

towards discourse analysis; two colleagues were broadly qualitative researchers (one with a particular interest in practitioner research) in the field of school leadership; and a philosopher, albeit one who by this time had extensive experience in ethnographic case study research (Bridges 2017, 164). Kazakhstani colleagues included an ethnographer; a quantitative researcher with a particular interest in talented and gifted children; a micro-economist; and a number of others who contributed a number of skills, from interviewing and classroom observation, through survey instruments to documentary analysis (Bridges 2017, 165). There were different strands of research with a lead person for each strand. There is no space to describe the whole process of the programme of research for four years in this paper (see Bridges 2017; 2014). However, it important to note that the cross-cultural team worked jointly and developed a commonly agreed set of research questions and in every case it was agreed that all data collected would be accessible to all members of the research team, each of whom could individually or jointly to produce their research papers from it (with due acknowledgement to the rest of the team) (Bridges 2017, 166).

In 2015, one of three strands of research project was focus at the nature of pre-service teacher education and its fit with the changing curriculum and changing approaches to the professional preparation and development of teachers. Two of the authors had themselves experienced in the former Soviet Union the kind of teacher training associated in Kazakhstan with the Pedagogic Institutes. A third author has long experience in teacher training in the UK and internationally as it morphed through a variety of different forms. The research task was not to recommend one model or another, but rather to highlight the contrasts and to observe what happened when one model encountered another.

Research methods

The paper rests on empirical data collected over four years derived mainly from extended semi-structured interviews with key stakeholders. The main resource gathered in 2015 included 40 interviews with teacher educators and students from three higher education pedagogical institutions and two pedagogical colleges in two locations in Kazakhstan. Seven focus groups with students and three focus groups with senior lecturers were conducted in April 2015. The selection of students for participation in the focus group was done by administrators in their institutions. Another focus group with trainers from the Centre of Excellence professional development programme was conducted in March 2015 in Cambridge.

The research team first developed a set of interview guides tailored to different participants. For the team of cross-cultural researchers it was beneficial to gathered data collectively. For example interviews were conducted in pairs or trios and researchers actively participated as interviewers. Participation of local researchers was also important for the process of translation during the interview from the original language (mainly Kazakh and some Russian) into English and for their ‘intimate knowledge of culture’ (Chen and Boore 2009).

Prior to interviews participants were informed about the purpose, time, demands, confidentiality, and voluntary nature of their involvement. The interviews and focus groups were conducted in participant’s preferred language and were digitally recorded. Providing confidentiality and anonymity of participants was seen to be especially important. Participants were coded by their status (i.e. students, lecturer), Roman numerals were used for locations (i-ii), and higher educational institutions were coded using the capital letters ‘A-C’, with ‘FG’ for focus group interviews.

The data also included analysis of documentary evidence of different kinds: course manuals, programme descriptions, textbooks used in teacher education, etc. An unpublished evaluation

report on the classroom action research programme for teachers in Nazarbayev Intellectual Schools conducted for Cambridge International Examinations provided a particularly illuminating set of insights (CIE 2014).

In addition the paper draws on data from a survey (N=248) completed by teacher-educators (i.e. the faculty in the higher education and colleges) and administered online through Qualtrics software. The survey consisted of 25 questions in various formats: Likert scale, multiple choice, and short open-ended responses. The vast majority of participants were female (n=205, 82.7%) which roughly reflects the population. The ratio of female to male is 9:1 with an age range of 21 to 67 (mean age is 42 and SD=8.93). Participants' areas of expertise ranged across the following: Teaching methods (n=106), Pedagogy (n=94), Teaching practicum (n=76), various academic subjects (n= 61), Psychology (n=36), with 20 participants providing more specific subjects such as: management in education, foreign languages, chemistry, 'defectology' (special educational needs), arts, music, biology, physics and ICT.

Data analysis procedures

Qualitative data analysis

The research team used field notes to record the key themes discussed during the interviews and to indicate whether the whole or only part of the audio file would be worth selecting for transcription. The field notes were organised in a table with columns representing the date/place/organisation, the role of the interviewee, the names of the interviewers, the main language(s) used during the interview, and the major topics discussed. On the basis of the field notes, 20 audio files of interviews and focus groups were selected for translation and transcription out of the 40 collected.

The research team employed professional translators with linguistic proficiency in Kazakh, Russian and English to transcribe and translate selected audio files in Kazakhstan. In addition, some postgraduate students with bi- and multi-language proficiency from the Faculty of Education, University of Cambridge and the Graduate School of Education Nazarbayev University were employed as research assistants to help with audio files. A document on “Guidelines for transcribing and translating research interviews” was prepared to help translators and also to maintain consistency in the preparation of transcripts.

The audio files were transcribed in the original language of the interview and then the transcript was translated into the targeted language - English. Chen and Boore (2009, 236) suggest that ‘it is important that the translator is fluent in both the source language and target language and knowledgeable about both cultures’. Since the majority of interviews included presence of one researcher who was truly fluent at least in two languages, it was helpful at the stage of transcribing and translating audio files to ‘achieve conceptual equivalence’ (Chen and Boore 2009). All transcribed files were presented in a table format with three columns: minutes of audio file/ original language/ targeted language.

It was acknowledged that the quality of translations differed as some translators were not knowledgeable about the context, people under study and terminology used. Members of the research team with the relevant linguistic skills applied back-translation procedures as a check. This stage involved content analysis of both Russian/or Kazakh and English version of the text and particularly unclear parts. The next stage included translation from original language into English and back-translation to original language. The final version of transcripts was checked by a fluent English speaking colleague who was familiar with the cultural context and terminology. This strategy helped to validate the translation of the general content. Chen and Boore (2009, 236) note that ‘when different cultures and language

are involved epistemological difficulties in identifying similarities and differences are compounded'. Thus, the most important priority was to convey meaning faithfully using words rather than presenting the literally translated equivalents. At the later stage, selected quotes included in the final report were edited by an English speaking proof-reader.

Thematic analysis was used in categorising the data collected through interviews and focus groups. One of the benefits of thematic analysis is its flexibility. First, it is not linked to any pre-existing theoretical frameworks, so it can be used within different theoretical perspectives. Second, it can be 'a method which works both to reflect reality, and to unpick or unravel the surface of "reality"' (Braun and Clark 2006, 81). The research team employed a constructionist method of thematic analysis, which examines the ways in which events, realities, meanings, experience and so on are the effects of a range of discourses operating within society'(Braun and Clark 2006, 81). The analysis started during the data collection. Filed notes and reflective discussions among team members can be described as initial step of 'familiarising with the data'. Themes or patterns within data were identified in an inductive or 'bottom up' fashion without trying to fit it into a pre-existing coding frame, or the researcher's analytic preconceptions (Braun and Clarke 2006), though this is not to claim that the researchers approached the analysis with empty heads. Thus, thematic analysis was, however, primarily data-driven.

All transcripts were coded using NVivo 10 programme by members of the research team. *Categories* emerged from the data rather than being imposed on them except that the *themes* were prespecified. The following were the main subcategories developed by the team of researchers working within the 'teacher education' theme: 'pedagogy', 'curriculum', 'CoE training', 'difficulties', 'practicum', 'assessment', 'theory', 'methods', 'technology', 'tri-lingual policy', 'student motivation' and 'preparedness'.

Documentary analysis

Textbooks and syllabus analysis was conducted by a bilingual (Russian-English) member of the research team. Any textbook is complex in both its features and its functions not only at the level of the didactic and pedagogical dimensions that people naturally associate with textbooks but also cultural and ideological ones. It is quite significant in the context of a post-Soviet reform era, to analyse the educational content from a historical and ideological point of view.

The first step in the document analysis process was to divide each document into smaller units of analysis on which more detailed analysis could take place. In textbooks, the most important unit was a chapter. Subsequently these units were divided into smaller blocks containing a theoretical block, exercises and questions. Three textbooks and two syllabuses used to teach course “Pedagogy” were analysed with a focus on: (i) how pedagogy is defined; (ii) how the content of a textbook helps to bridge between theory and practice; (iii) does a textbook foster a critical and reflective approach to theory and practice?

Quantitative data analysis

An online survey administrated through Qualtrix software automatically collated the data and it was downloaded as a spreadsheet in SPSS. The data was checked for accuracy and a pairwise deleting technique was employed. For the purpose of this paper, descriptive statistics were used to analyse questions (#19, #20 and #21), which asked teacher educators about their perceptions on the usefulness of training provided by Centre of Excellence programme.

Findings

1. What understanding of the professional knowledge requirements underpins current practice in pre-service teacher education in Kazakhstan?

Pedagogy as ideas

The way pedagogy is interpreted and taught in Kazakhstan is close to the continental European tradition. Pedagogy is seen as a prominent and respected ‘field of science’. The analysis of three textbooks (e.g. Teslenko 2010; Gubaidullina 2012; Slastenin et al. 2008) and two syllabuses on Pedagogy used across educational institutions in Kazakhstan presents a complex picture of how pedagogy is interpreted by different authors among whom pedagogy is presented as ‘science’, ‘art’ and a ‘study subject’. For example, Slastenin et al. (2008) provide the following explanation:

“Pedagogy is an independent discipline, which has its own ‘object’ and ‘subject’ of study. The *object of pedagogy* is the phenomenon of reality which determines the development of mankind within a process of purposeful activity of society. The *subject* of pedagogy is education as a holistic pedagogical process, purposefully organised in special social institutes (i.e. family, educational, cultural and upbringing institutions).” (pp. 60-61)

According to the State Standards, pedagogy and several pedagogical subjects are mandatory at all pre-service teacher education institutions in Kazakhstan. A majority of teacher-educators in the study strongly believed that theory, and particularly students’ grasp of pedagogy, constructs the basis of teachers’ professional knowledge and this is why students must develop it first. It was claimed that the knowledge of pedagogy is necessary for developing teacher professional knowledge in contrast to some working occupations where,

for example, people deal with machines. Many participants argued that studying pedagogy is important as it provides a solid theoretical basis:

One should initially receive the basics of pedagogy: what the science of pedagogy is? What subjects it interconnects? What it gives? What pedagogically consistent patterns are? What educational regularities are? What kinds of work are regularities of activity, how to regulate the activities of the class teacher, the school and parents... (iv-HE-D-Head-Ped-Dep-F)

It is normal practice for senior teacher educators to dominate the class, leaving no room for students' reflection. The analysis of qualitative data suggests that while teaching pedagogy and psychology, teacher educators seem typically to teach in a very theoretical way what pedagogy or psychology is about with little connection with school practices. For example, one senior university lecturer explained:

...the difficulty is that [students] know the methods and know how to use them, but *have troubles with theory*. We say: What is an objective law? What does Podlasyi say? What does Pidkasisty say? Give a definition of objective laws of pedagogy? What does Kharlamov say? What definition does he give? What does he ascertain? The problem is theory (iv-HE-A-Pedagogy-Lecturer-Rus-F).

The understanding is that students have to learn by heart many theoretical aspects, historical pedagogical thoughts and concrete knowledge of definitions. In addition, students have to be able to compare several scientific definitions, know what kind of educational and instructional principles exist. It was claimed that:

I always say that we cannot go without theory. This is the objective law (iv-HE-A-Pedagogy-Lecturer-Rus-F).

On the other hand, students should have a ‘life-experience’ of the subject. Namely, a student-teacher cannot fully perceive the subject until she/he teaches it, in other words ‘gets to know theory in practice’. Therefore, a balanced approach is required:

You know, it must be fifty-fifty: fifty per cent of theory and fifty per cent – application of those methods. A student should be able to think theoretically and come to these methods based upon theory. (iv-HE-A-Lecturer-Pedagogy-F)

Some teacher educators admitted that when students come to do their higher education degree after completing initial training in pedagogical colleges (as distinct from the Pedagogic Institutes – vocational education), they tend to demonstrate perfect knowledge of practice but are weak at theory. Students who studied in colleges argued that they know how to apply methods and have well developed practical skills rather than a solid theoretical basis. On the other hand, it was acknowledged that theoretical knowledge is not always applied in practice:

I know [the] methodologies of Amonashvili and Lysenkov. I [have] read works of Leontiev, Vygotsky, Luria. We learn all of this just as a theory, but we do not use them often in practice (iv-HE-A-Lecturer-Kaz-CoE-Tr-F).

While some final year student-teachers stated that they are ‘studying what they like’ and ‘obtaining a little bit of everything is very interesting’, others explained:

When we get a job the theory which we studied is not enough and [it is] even difficult. Because it is very difficult to work without experience, as [experience] is required within the work with children (iv-HE-A-Students-FG-4F).

Students clarified that they are not against all-round education but against additional subjects that are not related to their specialisation. Furthermore, it was difficult to study a huge amount of information within a short period.

[...] this knowledge will not be useful in our work, life and practical training. In my opinion, there should be less such academic subjects in the first and in the second years. The content of these courses is complicated; lots of information. All such materials were related to the specifics of our specialty and we learned only key aspects. (iv-HE-A-Student-D-FG-4F).

Pedagogy as practice

Future teachers need to know about many things. While some knowledge can be gained at the university, but much of what teacher-students need to know can only be learned in the context of practice. The ‘practicum’ is an integral component of pre-service teacher education in Kazakhstan. It includes: ‘passive practice’ during the 1st year (2 weeks), which, as its name suggests is not really practice at all but observation; probationary practice – 2nd year (4 weeks); teaching (pedagogic) practice – 3rd year (6 weeks); and the state pedagogical practicum for 10 weeks during the 4th year of studies. The current state of how some subjects are taught and how textbooks are written is not really helpful in terms of the construction of teachers’ professional knowledge and their ability to apply theory in practice:

Young people are going to higher education and facing utter boredom (*sic*)! Everything is monotonous, no schemes, no creative tasks and only theory, theory and theory.... I believe, here it is understood that they just cram and that is all. They learn but don't analyse. This is a huge drawback.....We had theory, [but] we couldn't observe any connection with practice (iv-College-A-FG-Lecturers-3F).

The results reveal that practicum could be a challenging experience. At the same time, student-teachers expressed a genuine appreciation of practicum with regards to building self-efficacy and confidence.

I won't [say] that it was very simple, the theory is of course a theory, but in practice naturally we were at a loss. [...] It was a great professional experience for us... We [learnt] not only about the theory but also about teaching technique[s] of some general subjects (Student C, iv-HE-A-Students-FG-4F).

Students stated that pedagogical practicum allowed them to see how other specialists work and also helped them to decide whether they wanted to continue working in this or that direction.

... I think that each of us has [become more] established at the practice (in the 4th year), because before when we had a practice in the 3rd year [it] was more morally difficult for us (iv-HE-B-FG-Students-6F).

Some difficulties that both educators and students experience during practicum were described:

[...] practical training of students is the main thing. However, it leaves much to be desired, miserable money is allocated for the practice, schools do not want to participate, there are conflicts between the local executive bodies and their development strategies and the priorities of agencies such as the Ministry of Education, for example, it is not profitable for schools to keep and accept students. Even if they are accepted, some schools just release everyone willy-nilly; it is impossible to attach a teacher for each student in practice (iv-HE-D-Vice-Rector-M).

Nearly all of the participants, including students, suggested that it would be helpful if the practicum was longer but no one seems to feel able to do anything about this. A few cases were reported when students had to teach different subjects because there were not enough classes available in a subject of specialisation. Some participants admitted that while students

have developed good practical skills this does not mean that they have become completely prepared teachers.

The results discussed above suggest that professional knowledge and professional preparation of teachers in pre-service institutes and colleges are constructed within the Kazakh and Soviet pedagogical traditions, albeit with some references to international scholars. The data show that there are many subjects included in the teacher programme in which theory is presented without much connection to practice. Teachers' professional knowledge is mediated by academic staff in a largely didactic style with little or no critical engagement or exploration of implications for practice. All of this shows two things: first, the presumption of a model in which the only direction of travel is *from theory into practice* (practice is where theory is 'applied'); and, secondly, that even judged in terms of these expectations, it is simply not working.

2. What construction of teachers' professional knowledge underpins the work of Nazarbayev Intellectual Schools (NIS) and the Centres of Excellence in-service educational programmes?

This section looks at what is happening in the context of the in-service education of teachers, and in particular in training developed to support the reforming agenda in schools. This is an example when pedagogy deals with the micro-macro relationships, changes in national educational policy and new approaches to teachers' professional knowledge that virtually turns the Pedagogic Institute model on its head.

There are two major sources for this re-think in the in-service programmes: one is offered at three levels under the Centre of Excellence (CoE) programme and another lies in a programme of Collaborative Action Research (CAR) run thus far only for schools in the NIS system.

There are six particular characteristics of approaches that challenge traditional ways of thinking about teachers' professional education and training in Kazakhstan. First, the focus in these programmes (i.e. CoE and CAR) is on *generic* teaching skills as well as their underpinning values and beliefs, albeit that these are illustrated by reference to particular new approaches to teaching and learning, namely:

- 'Dialogic teaching and learning' and 'Learning how to learn' (independent learning)
- Learning to think critically
- Assessment *for* and *of* learning
- Using ICT in teaching
- Teaching talented and gifted children
- Responding to age-related differences in teaching and learning
- Management and leadership of learning.

(AEO NIS/CoE 2012b, 86-7)

One thing which is significant about these approaches to student learning is that they reflect key features of the approach to learning that is also reflected in the in-service programme: students learn not just from the teacher but also from the abundance of resources available on the web; and they work collaboratively learning from each other and co-constructing meaning for themselves.

Second, all programmes rely on a close connection with *practice*, through the school based work carried out by the teachers. In this programme, practice is pivotal to knowledge construction.

Third, they require *reflection* on practice, partly in the form of individual reflection and notes recorded in teachers' portfolios but also reflection prompted by discussion with peers. The fourth feature is *collaboration* between teachers, working together and supporting each other in the in-service programme in a way that parallels the learning practices that teachers are encouraged to develop in their classrooms.

Fifth, this principle is extended to include the creation of teacher *networks* across schools as well as inside schools. The CoE programme suggests that:

The leadership of development itself creates new knowledge within the school but sharing accounts of development projects can contribute to knowledge building *beyond the school* (AEO NIS/CoE 2012a, 211 authors' italics).

Finally, in the CoE programme as well as in the CAR programme (focussed specifically on NIS schools), teachers are encouraged to engage in *action research* understood as a cyclical process by which they examine what is happening in their classrooms against their own aspirations, identify any problems, take steps to address these problems, review the success of these approaches etc. Teachers in this way become researchers in their own classrooms.

All of these features were incorporated in the Centre of Excellence training programme. One report notes with satisfaction, on the basis of evidence from a period of mentoring of trainers, that:

Trainers tried to develop environments that would support participative, experiential and reflective training approaches and mentor reports suggested that such approaches were

the norm in training sessions. It was clear that trainers valued and made much use of group work and that they were skilled in promoting good relationships and facilitating collaboration (Turner et al 2014, 93).

When one puts these features of professional education together the implications are really quite profound both for the way teachers' professional knowledge is constructed and for the ways of thinking – the constructs – that this generates. The relationship between theory and practice is turned upside down. It is no longer a matter of learning the theory and then trying (frequently in vain, as the previous section has shown) to apply it to practice; nor is it any longer the academy that is the source of this professional knowledge. Rather, theory is generated out of practice, reflection upon that practice and inquiry into practice, and it is generated primarily not by academicians but by teachers.

The rationale for involving teachers as researchers of their own practice is connected with an aspiration to give them control over what is to count as knowledge about practice. As action researchers, teachers are knowledge generators rather than appliers of knowledge generated by outsiders (Elliott 1994, 133).

3. How compatible are the two constructs of teacher professional knowledge?

You see the whole point... is to see that actually the Level 3 programme is about practice knowledge and thinking about practice situations in a different way and [to see] how the children can learn collaboratively too. So you know it's the old 'here is the theory in the university and then there is the practice', and there is a real big disconnect - and that's the biggest thing for me that came out of it (Participant E, FG-CoE-Trainers).

Thus far two contrasting portrayals of the ‘constructs and construction’ of teachers’ professional knowledge in Kazakhstan have been presented: one situated in the traditional Pedagogic Institutes and the other promoted by major new in-service training initiatives. The interesting question: is what happens when these two contrasting practices encounter each other in the wider educational and professional culture of Kazakhstan?

There are four contexts in particular in which such encounters have begun to take place:

- Through the Centre of Excellence programme, which challenges teachers’ established views of their own professional learning
- Through the extension of this programme in 2015 to train staff of Pedagogic Institutes – and for them in turn to train final year students
- Through the classroom action programme in NIS schools
- Through encounters with the updated secondary education curriculum at mainstream schools based on the approaches of NIS

There is evidence from teachers’ own reflections and from evaluation reports on the first of these (Turner et al 2014), evidence from an independent evaluation on the classroom action research (CIE 2014) and evidence from authors’ own recent research interviews and a survey on the ‘translation’ of these approaches into Pedagogic Institutes. It is difficult to do justice to all of this in the space available, but some of the key features, focussing in particular on the evidence from authors’ own research will be discussed next.

International readers will find nothing surprising or especially innovative about these approaches to teachers’ professional learning. The influence of scholars like Donald Schön in terms of reflective practice (Schön 1983) and John Elliott on classroom or collaborative action research (Elliott 1991) has been worldwide, though not yet very much in evidence in

Central Asia. There are a number of features of the architecture that frames teachers' professional lives in Kazakhstan that make these ideas difficult to absorb.

To begin with, the *stavka* system, by which teachers are paid and which is widely used in countries of the former Soviet Union, links pay to the statutory teaching hours i.e. 18 hours per week – nothing else (NUGSE 2014; Steiner-Khamsi et al. 2009). This operates as a disincentive to engagement in any wider kind of professional activity.

Teachers are in any case accustomed to receiving their instructions from on high and accustomed too to strong regimes of conformity. The major question that practitioners struggled to answer during the implementation phase of action research project in NIS was: 'how [...] to match the democratic intentions of action research and the directed element of this project for these teachers especially in a post-Soviet state where speaking your mind and being critical are not natural activities?' (McLaughlin and Ayubaeva 2015, 64). Furthermore, the evaluation report on the action research programme discusses some of the ambiguities in the power hierarchy in schools when some of the Teacher Research Coordinators (TRC) were also appointed as Vice Principals in their schools:

On the one hand, the model of action research that teachers have been learning about has suggested that collaborative power from 'the bottom up' can institute positive change within a school; and on the other, the overlapping of the role of TRC and Vice-principal suggest that power is located 'at the top' in a way that may be difficult to challenge for a teacher (CIE 2014, 5).

This said, one school principal, who had not attended any of the CoE programme herself (because she was 'too old') found herself with twenty-three trained teachers from the level 3 programme who clearly had found new self-confidence:

[...]Twenty-three teachers were sent for Level 3 training. They came and they were boycotting saying that our experts said that we can do anything we want in this course and we are not going to listen to the principal.... The principal was having a hard time, she said: ‘they don't listen to me, they just go, they do whatever they want and now I don't know where to go and to whom to complain’ (Participant B, FG-CoE-Trainers).

The promotion and reward system for teachers, the *attestatsiya* (*attestation*), similarly works against an ethos of collaboration and creates instead an ethos of individual competitiveness for ownership of, for example, teaching materials, short reports and credit for student achievement. An evaluation report on the classroom action research programme observed that:

There seemed to be a constant tension between developing trust between colleagues – even within the same schools – and most certainly between schools where the model of attestation and achievement depends upon competition. This is rarely problematised or even acknowledged (CIE 2014, 7).

But the imaginative barriers to the adoption of these alternative approaches to teachers’ professional development run deeper, and reveal something about the presumptions about teachers’ professional lives that underpin the adoption of practices such as action research. For teachers in Kazakhstan ‘research’ is something ‘scientific’ conducted by academics in universities; it is something far removed from the small scale and more pragmatic testing that is more characteristic of classroom action research. Some teachers on the Centres of Excellence programme found it difficult to abandon their established expectations of research. One course tutor describes how:

I asked them to fill in the advantages and disadvantages of what I described as traditional research and practitioner research. It became clear that they didn’t understand practitioner research in the same way perhaps as we do... They didn't know how they

would possibly do it, and that they had to research on something that would improve their own practice, that practitioner research involved that... The actual research cycle was something quite new to all of them (Participant B- Focus-Group-CoE-trainers).

The evaluation of the classroom action research programme records:

Some teachers who were new to AR expressed a view that suggested that 'proper' scientific research is preferable to conducting AR because it is more generalisable and less interpretive, which suggests that there are epistemological and ontological challenges to be overcome in working with some teachers in relation to researching teaching and learning in school (CIE 2014, 7).

'Reflective practice' fell foul to similar prejudice or bewilderment about what might count as 'proper' professional knowledge:

Participant D: now that they're going to be building their reflective portfolio the reflection is another vein that runs through it because they're actually going to be thinking about what they did and why they did it the way they did and what were the strengths and what were the weaknesses....

Participant C: And we know that they find that very, very difficult.

Participant D: Very difficult, absolutely.

Participant C: Because they don't see that -- something that they've learned through their own experience -- as being you know proper knowledge. ... We have to work hard at getting them to understand that that is real knowledge rather than, you know, such and such a theory said it ... therefore it must be right'. (FG-CoE-Trainers)

The idea that a teacher might engage in such activity pre-supposes a view of teachers' 'extended professionalism' (Hoyle 1974) that reaches some way beyond the traditional task

of classroom instruction. It is rare too for teachers to engage in any academic work, after their initial training and graduation, though, there were proposals being circulated for the development of new executive masters programmes for mid-career teachers. Such features of teachers' professional lives and identities are commonplace in many parts of the world, but not yet in place in Kazakhstan.

So not only do teachers encountering new constructs of teachers' professional knowledge have to overcome traditional views of the relationship between theory and practice and traditional approaches even to the teaching of the theory, but they also have to grapple with features of their professional lives and cultures that weigh heavily against change. What hope, then, of success?

Of course, such success can be measured in terms of the reception of new thinking by teachers, but also by the impact of this thinking and the practices that it supports on students, both in schools and, following the most recent extension of the Centre of Excellence programme, in Pedagogic Institutes. For example, from 248 university staff who took part in the survey, 184 who attended the programme of CoE. The descriptive statistics show only n=43 (24.2%) of participants reported that the course taught what they already knew and what they did. n=178 (96.2%) of participants reported that the course gave them some challenging new skills and approaches. Similarly, n=171 (93.4%) believed that the course showed them the direction in which their current pre-service programme needs to move. Only n=46 (25.3%) of participants thought that approaches to teaching presented in the CoE course are largely irrelevant to their context. 96.7% participants agreed that they are enjoying translating the approaches from the course into the programme for their own students. The majority of participants n=154 (84.6%) disagree with the statement that they found it very challenging to translate the approaches from the CoE training in a course for their own

students. About 88 participants responded to open-ended questions on their recent CoE training. Many participants commented that they plan to introduce changes in their teaching approaches and wanted to develop them further. The CoE programme was described as ‘a new direction for contemporary schools’. However, the major concern was that despite some changes, the courses at the universities are still taught in a traditional style and changing mind-sets takes time and is not straightforward:

It was not easy to break the stereotypes between us about the ‘best Soviet school’. During the courses, it was difficult to evaluate everything at once. Since the time passed, you start realising that we have done an enormous job together. Conducting a lesson as in ‘old times’ has gone forever. My students and me - we like novelty (Participant #44).

One thing that makes the assessment of this impact very difficult is the tendency of Kazakhstani teachers to give very positive assessments. For example, teachers are required to assess every pupil in every lesson on a five point scale (in which 5 is the best). They only very rarely use anything except 5.0, 4.5 and 4. Similarly participants in training events will rarely evaluate such events as anything below ‘very good’ – a feature that is very satisfying to trainers until they realise that a mere ‘good’ is really pretty bad!

So there is no shortage of statements by teachers praising the training they have received nor of their enthusiasm for the new methods – and new approaches to their own professional learning - even if the mind numbing requirements of the high stakes national test, the Unified National Test taken at the end of schooling, sometimes lead them to park their new teaching approaches in favour of the tried and trusted methods of instilling remembered factual knowledge in the minds of their pupils.

More compelling is the evidence from students who have been the beneficiaries of the new approaches. In a small rural school in southern Kazakhstan the research team met nine

students who constitute the grade 11 class. All nine students were planning to take an exam in Biology because they were inspired by a teacher who attended CoE programme. Students explained: ‘She has been on this course and uses all the new methods and it makes lessons *so* interesting!’ (v-S-D-Focus-Group-11-Grade-students, February 2014). Similarly, some teacher educators from pedagogical universities were very enthusiastic after recently received CoE training, and so indeed were students.

But does such enthusiasm – and of course it is not possible to generalise from these cases to the whole population – reflect a transformation in teachers’ thinking about their own professional knowledge, how it is developed, what are its sources and from where do these gain their authority? Again there is the problem of Kazakhstani teachers’ determination to provide positive answers to questions. In a survey that was constructed for completion by staff of Pedagogic Institutes, there were offered some very contrasting views about teachers’ professional knowledge. The intention was to be able to place respondents on a two dimensional grid of which one axis had strong emphasis on theory as a source of teachers’ professional knowledge to strong emphasis on practice as a source of teachers’ professional knowledge.

In the event, many of participants agreed with every statement that was offered, apparently oblivious to the fact that in other parts of the world the statements would have been instantly recognised as offering contrasting and even contradictory views of the relationship between theory and practice. The research team struggled in rather the same way in some of interviews and eventually had to recognise that what one might think of as the meta-discourse about the relationship between theory and practice was by and large not one with which teacher educators or teachers in Kazakhstan engaged, even if there was among teachers a widespread recognition that whatever the benefits of the education provided by the pedagogic institutes, it certainly did not leave you ready to go into a classroom and teach.

The challenges for the pre-service education of teachers in Kazakhstan

This research has highlighted the differences in understanding, the constructs and construction, of teachers' professional knowledge, between the established Soviet style patterns in the Pedagogic Institutes and those drawn from international and especially UK experience currently being promoted to tens of thousands of teachers through Nazarbayev Intellectual Schools and its Centre of Excellence (with a requirement on them to extend its reach to other colleagues). It is clear that these differences are not just about particular forms of pedagogy but about the nature of teacher professionalism, the very culture of teaching, and about fundamental beliefs. Writing about the CoE programme, Turner and colleagues argued that 'central to the success of the programme is the need to change [teachers'] beliefs as well as develop knowledge and skills' (Turner et al., 2014, 103). Thus, the Pedagogic Institutes are only just beginning to entertain the beliefs that are driving change in mainstream schools, but if they are to support these changes and enable the next generation of teachers to deal with them in theory and practice, they face times in which their ideas, their practice and their very competence to prepare teachers will be challenged. In particular, Kazakhstan is beginning to face the prospect of a much more significant role in the preparation and continuing professional development of teachers for teachers themselves; for practical skills (at the expense of *pedagogika*); for theory constructed by teachers out of their own experience and research. These are developments that have already transformed teacher education in many parts of the world and which now threaten established providers in Kazakhstan. It remains to be seen whether the Pedagogic Institutes will fight a rear-guard action in defence of their established ways of doing things (a not entirely improbable scenario of which the outcome would be shaped by larger political forces).

The paper has itself raised important issues about the significant role of societal culture and pedagogical traditions in shaping educational policy and practice, and these make any simple minded approach to ‘policy borrowing’ problematic. There are in the teaching profession enthusiasts for interactive learning, teacher researchers etc. but not everyone welcomes the new importations or feels professionally empowered by them. As one lecturer at Pedagogical Institute explained:

Sometimes I feel that these foreign ideas will beat us, and we will stay without theory, we will not be able to speak (iv-HE-A-Lecturer).

It is important that future research gives voice to all sides of the on-going debates about the future of teacher education.

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