# Teachers' Pedagogical Approaches in Kyrgyzstan: Changes and Challenges

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## Introduction

This chapter describes pedagogical approaches that are used by teachers in primary and secondary schools of Kyrgyzstan, and presents the results of a study, conducted in 2013, which was designed to increase understanding of pedagogical approaches and thereby contribute to future reforms in national education policies and educational practices for improved learning.

## Background

### *Country context*

Kyrgyzstan, officially the Kyrgyz Republic, is a small, landlocked and mountainous independent nation in Central Asia. Kyrgyzstan's territory is close to 200,000 square kilometres, bordering China to the east, Tajikistan to the south, Uzbekistan to the west and Kazakhstan to the north (Shamatov, 2005).

Kyrgyzstan was previously one of the 15 republics of the Union of Soviet Socialist Republics (USSR). Soviet rule was established between 1918 and 1922 (Landau and Kellner-Heinkele, 2001). During Soviet rule, and especially from the 1960s onwards, many Kyrgyz people became "Russified" (Ibraimov, 2001). This was reflected in people's dress, personal behaviour, language and modes of speech at the time (Akiner, 1998). Korth and Schulter (2003) observed that many Kyrgyz, particularly those who lived in urban areas, became deeply immersed in Russian culture and barely spoke their mother tongue.

Major changes in the political life of the USSR began in the mid-1980s, when Mikhail Gorbachev introduced the policies of *perestroika* (restructuring) and *glasnost* (openness) to overcome social, political and economic stagnation in the country (Davies, 1989). 'Windows opened up to the pluralism of opinions, cultural and political associations and various forms of economic activities' (Niyozov, 2001, p. 97) in Kyrgyzstan, as in other parts of the USSR.

With *perestroika* and *glasnost*, people in Kyrgyzstan gained the rights of assembly and freedom of speech, the right to strike and the right to hold multi-candidate elections. Kyrgyz people thus began to raise questions regarding preserving their heritage and mother tongue. Consequently on 23 September 1989, Kyrgyz was given the status of state language (Ibraimov, 2001; Korth and Schulter, 2003; Landau and Kellner-Heinkele, 2001).

The dissolution of the USSR began in 1989 and Kyrgyzstan became fully independent on 26 December 1991. Gaining independence aroused the hopes and aspirations of the people of Kyrgyzstan. An array of reforms was introduced, including introducing a national currency *(som)*, privatization, shifting to a pluralistic electoral system and a market economy, and securing membership in international organizations (Niyozov, 2001).

Despite growing hopes, the dissolution of the USSR brought about chaos, despair and uncertainty to the lives of thousands of people in Kyrgyzstan (Rashid, 2002). Dislocated civilians, unemployment, poverty, poor living conditions and various health problems plagued Kyrgyzstan from the early 1990s. Kyrgyzstan's economy was in a deep crisis: between 1990 and 1996 industrial production declined by 63.7 per cent; agricultural output declined by 35 per cent and capital investment by 56 per cent (Rashid, 2002). Additionally, during this period at least 60,000 people became unemployed (Shamatov, 2005, p. 98). High unemployment led to a dramatic increase in poverty. Urban poverty increased from 30.3 per cent in 1996 to 42.4 per cent in 1999, while rural poverty increased from 49.6 per cent to 60 per cent over that period (Mogilevskiy, 2004, p. 27). These severely unstable socio-economic conditions led to the migration abroad of many people (Ibraimov, 2001).

## *Education in Kyrgyzstan*

The Soviets held that the pace of societal progress depended on the development of science and education, and Kyrgyzstan achieved considerable progress in education during the Soviet era (Holmes, Read and Voskresenskaya, 1995). With massive campaigns for basic education, the literacy rate in Kyrgyzstan jumped from 16.5 per cent in 1926 to 99.8 per cent in 1979 (Ibraimov, 2001, p. 33). Schools were built in even the most remote mountain villages (Tabyshaliev, 1979). From the outset, education was free.

A system of education, with both Kyrgyz and Russian-secondary schools, was introduced in Kyrgyzstan early in the Soviet era. It was intended that there would be no difference in the quality of education provided by the two types

of schools. Contrary to official doctrine, however, Soviet schooling was never monolithic or egalitarian (Niyozov, 2001; Sutherland, 1999). In spite of the policy of internationalism above nationalist and ethnic identities, in practice the Soviet education system promoted Russian identity over other national identities within the USSR. All students were exposed to the same centrally-designed curriculum, with minor local adaptations to accommodate each Soviet republic (De Young, 2002).

Despite high learning standards and an egalitarian approach, success in the Soviet Union was closely related to speaking and acting like Russians. The reality was that Russian speakers occupied higher positions in most Soviet institutions (Korth, 2004). This emphasis on Russian culture resulted in a neglect of, and even distain for, the Kyrgyz language, identity and culture (Korth and Schulter, 2003). Thus, in the 1960s many parents began to send their children to Russian-secondary schools (Korth and Schulter, 2003).

Obvious differences also existed between urban and rural schools (Korth and Schulter, 2003; Shamatov, 2005). Rural areas of the USSR had considerable difficulties in terms of education (Kondakov, 1974). The rural schools lacked 'equipment ... visual aids, technical teaching devices, education literature, and fiction [literature texts not adapted to schools]' (Morozov and Ptitsyn, 1975, p. 65). Rural schools also experienced serious teacher shortages, because many young teachers failed to report to their job placements (Anisimov, 1991). Status differences also existed between schools that had an emphasis on English and those with an emphasis on mathematics (Niyozov, 2001).

In terms of pedagogical practices, instruction was characterised by a fairly rigid pattern of rote mastery of texts, oral recitation by students and teacher dominance of classroom activity. Kerr (1990, p. 25, cited in Niyozov, 2001, p. 18) noted that:

> Although special schools with more flexible approaches served the children of the elite and the specially talented, the typical Soviet school was often a dreary place: a decrepit building with few textbooks, out-dated equipment, alienated students, bored teachers, and an authoritarian administration. Students graduated with little understanding of the concepts or principles they had studied, or with narrow, outdated occupational training that was often useless in practice.

The 1980s saw the beginning of many reforms in education in Kyrgyzstan. Since the adoption of Kyrgyz as the state language in 1989, the number of Kyrgyz schools has increased steadily (Korth, 2004). By 1998, the number of Kyrgyz schools had increased by 17.3 per cent, while the number of Russian schools had decreased by 39.3 per cent since 1989 (Shamatov, 2005, p.107).

In response to *perestroika* and *glasnost*, innovative teachers were able to push hard to have more say in teaching practices. Many progressive teachers expressed concern that Soviet schooling did not encourage their pupils' creative thinking, and that pupils and teachers alike were more worried about inspectors' judgments than about learning (Sutherland, 1992). Progressive educators advocated *netradissionnye* (non-traditional) teaching approaches (Anisimov, 1991), and the term 'pedagogy of cooperation' became widely endorsed by progressive educators (Lysenkova et al., 1986).

Following the dissolution of the Soviet Union, Kyrgyzstan saw a decline in both enrolment and graduation rates (DeYoung, 2004). Pre-school enrolment declined catastrophically. Out of 1,604 pre-school institutions existing in 1991, only 416 remained by 2000 (DeYoung, 2004, p. 2005). This decline was related to the increased costs of education, reduced state subsidies for transport and food, and lower family incomes (Eversman, 2000). While 83.6 per cent of the population of Kyrgyzstan completed secondary education in 1993, this decreased to 76.4 per cent in 1996, and then to 69 per cent in 1999 (DeYoung, 2004, p. 205). Unofficial reports suggest, however, that the actual percentages were far below these official figures (DeYoung and Santos, 2004). High drop-out rates were a by-product of economic collapse and declining support for the social sector, which had resulted in insufficient food, lack of adequate clothing and inability to afford learning materials. Declining prestige and perceived value of education also contributed to the high drop-out rates (Shamatov, 2005).

Kyrgyzstan inherited its teacher education system from the USSR. Kindergarten and primary school teachers are trained in colleges, while secondary teachers are trained in institutes or universities. Student teachers can enrol in college after completing a so-called 'incomplete secondary education' (Class 9), or can enrol in university after completing their secondary education (Class 11). Pre-service teacher education is normally four to five years of study (Kerr, 1991; Shamatov and Joldoshalieva, 2010). Fewer than half of the teacher education graduates ever enter the teaching profession, however, because of the low prestige of teaching profession. Teacher education is not seen as a good investment by donors. Therefore, pre-service teacher education has

been neglected as 'donors considered teachers to be a "lost generation," not worth investing in' (Silova and Steiner-Khamsi, 2008. p. 32).

In-service training (once every five years) is a state requirement in Kyrgyzstan (Shamatov and Joldoshalieva, 2010) and is conducted by the Kyrgyz Academy of Education and teacher training institutes (TTI), which operate at the central level and to some extent at the province level. TTIs provide compulsory 72–hour training modules, and teachers need to pass these courses. The national policy on teacher education in the Education Strategy 2012–2020, introduced in 2012, however, described the pre-service training for secondary school teachers as being inadequate.

The instructors of teacher education institutes use both conventional and interactive teaching methods, the latter having been learned through participating in various international projects. Many international development agencies have assisted local education authorities to provide in-service training which introduces elements of student-centred and interactive teaching methods. 'Modern' teaching methods include more active learning and student-centred forms of pedagogy that are designed to foster inquiry, application, initiative and teamwork, and that encourage students to play a more active role in improving their own personal and family situations, as well as their larger environment (Silova and Steiner-Khamsi, 2008).

In 2010, there were 2,134 public schools in Kyrgyzstan, out of which 1,379 were Kyrgyz-secondary schools, 162 were Russian-secondary schools, 137 were Uzbek-secondary schools, seven were Tajik-secondary schools and 449 were schools with two or more languages of instruction (Shamatov, 2013, p.135). Public schools in Kyrgyzstan are co-educational. Almost 83 per cent of schools are located in rural areas, along with 70 per cent of Kyrgyzstan's population (Shamatov, 2013, p. 136–37).

Today, in Kyrgyzstan private schools have emerged. Private schools are mostly located in urban areas; and are only populated by the children of those wealthy enough to afford to pay school fees (Shamatov, 2012). While many private schools have adopted modern teaching approaches, most public schools have not. The large majority of rural, semi-rural and mountain schools, in particular, still emphasize facts and memorization. A large gap in the quality of education has therefore developed between urban and rural schools. The results of the Program for International Student Assessment (PISA) 2006 tests and PISA 2009 tests confirmed this gap. The PISA test assesses higher-order thinking and the application of knowledge in real life, as well as literacy skills,

and results of the test showed that students at private and elite urban schools of Kyrgyzstan have significantly better skills than their rural counterparts. Unfortunately, the private-public and urban-rural gaps have continued to increase in recent years, with some urban schools becoming stronger, while the majority of rural and mountain schools deteriorate.

Over the past two decades the government of Kyrgyzstan has worked to improve the quality of education and to align it with international standards. In 1996 the Ministry of Education and Science and Kyrgyz Academy of Education developed education standards, which were revised in 2004. Other reform efforts have included the development, in 2002, of A Concept of Education in Kyrgyzstan; the release in 2010 of a new national curriculum framework, developed with the assistance of the Soros Foundation (National Curriculum Framework, 2010); and, in 2012, the launch of the Education Development Strategy 2012–2020. Between 2005 and 2012 the Asian Development Bank implemented the Second Education Project (ADB SEP), which aimed to develop subject-based curricula for primary grades 1 to 4. Subject curricula for grades 5 to 9 are still being developed.

The curriculum reform initiatives have aimed to shift from content-based to competency-based curricula. Competency is defined as the ability to do something successfully, such as apply knowledge, skills and abilities efficiently. Competency-based curricula aim for children to be able to use their school knowledge in real-life situations (National Curriculum Framework, 2010), by developing student competencies through innovative teaching methods (ADB SEP Specialist, Interview, 3 April 2010). The question is, whether these efforts to reform education have made any impact on teaching practices in schools.

## Description of the study

### *Research design and methods*

As noted above, reforms in Kyrgyzstan are aiming to move from conventional pedagogical approaches to alternative approaches, with particular emphasis on developing students' competencies (National Curriculum Framework, 2010). This study examined teaching practices and classroom dynamics in primary and secondary education, with a view to identifying whether the reforms have had an effect.

The main instruments employed in this study were interviews and document analysis (Merriam, 1988; Miles and Huberman, 1984; Bell, 2005).

The researcher interviewed 10 experts, who were selected using the following strategy. First, the researcher prepared a list of education experts in organizations and institutions in Kyrgyzstan. Second, the researcher approached these experts and asked them to participate in semi-structured interviews. The respondents were informed of the purpose and nature of the study (Cohen and Manion, 1997; Clandinin and Connelly, 2000; Glesne, 1999). Those who agreed to participate were then interviewed. Respondents included representatives of the Kyrgyz Academy of Education (KAE), representatives of international donor agencies, local education experts working in international development organizations and representatives of regional teacher training institutes and district education boards.

The types of documents reviewed and analysed in the study included reports, conference presentations, media articles, teacher training materials, curricula, teachers' guides, MOES and government documents such as the National Curriculum Framework (2010) and the Education Development Strategy 2012–2020, and Kyrgyz Academy of Education documents on national teacher policies. These documents were in English, Kyrgyz and Russian.

The study was based on the findings of a previous study, conducted in 2010, which was a baseline study for the Quality Learning Project implemented by the United States Agency for International Development (USAID). The baseline study was conducted to measure the performance of teachers across Kyrgyzstan. As part of the study, individual interviews were conducted with a sample of 137 teachers of grades 4 and 7 from 25 schools in three districts of Kyrgyzstan (Shamatov, 2010). Structured interviews measured teachers' understandings of concepts and examined their use of techniques and methods for instructional quality. In addition, questionnaires were completed by 158 teachers of the same 25 schools.

The current study did not include lesson observations, due to time limitations. The lesson observations undertaken during the preparation of the researcher's doctoral thesis study (Shamatov, 2005) were used in the current study. The thesis examined the professional socialization of beginner teachers in Kyrgyzstan over the period between 2001 and 2005, and the data was collected in 2001 and 2002 in southern Kyrgyzstan. Using a qualitative

design, the researcher conducted an in-depth study of two beginner teachers' professional socializations and, aside from class observations, conducted semi-structured interviews to collect data.

## Findings

Although Kyrgyzstan has been politically independent from the Soviet Union for more than 20 years, education in Kyrgyzstan has not changed significantly over that period. Today, as in the Soviet era, a teacher in a conventional classroom is considered to be an expert and a provider of knowledge. This system tends to promote 'reproductive knowledge', i.e. knowledge that should be memorized for further reproduction, rather than 'productive knowledge' that might be used creatively (interview with the vice-rector of Kyrgyz National University, 12 February 2014). As in the past, today most teaching is reportedly poor and not aligned with modern pedagogical theories and practices. A specialist from the KAE (interview, 25 June 2009) observed that,

> More than 70 per cent of teachers in Kyrgyzstan are doing their job routinely or with inertia. They just come to work, pretend to be teaching and then leave. Teachers only cover the daily plans developed by the Ministry of Education. Only about 5 per cent of teachers update their knowledge. Students do not like the way their teachers teach because what they teach often has no relevance to students' daily lives.

The findings of the study indicate that a small proportion of schools seem to be promoting student-centred teaching approaches. These innovative schools are mostly located in urban settings (Shamatov, 2014) but, according to Asylbek Joodonbekov, 'there are some teachers, both at urban and rural schools, who continue working innovatively and conduct very innovative lessons. I can give the example of Gapyr Madaminov, who works in a remote district of Leylek. He is an innovative teacher' (interview, 25 August 2013).

The responses from the individual and focus group interviews likewise demonstrate that active-learning methods are being used in some schools. According to an educator from the Kyrgyz Academy of Education, some secondary school teachers demonstrate a high level of teaching skills, and their classes are characterized by a high level of student activity and involvement, rhythm and intensity of work, lively and cheerful surroundings, and active interaction between teachers and students (interview, 12 February 2014).

A teacher from a rural school in Talas Province noted that the active-learning method he is using is 'a method of teaching where the teacher and students engage in discussion interactively. Students become more active, and tend to express their views eagerly' (interview, 17 December 2012). Likewise, a primary school teacher from a school in Jalal-Abad Province commented that the method she uses 'helps students work independently. They compare their views [and] work more in the team'. During presentations the teacher discovers many examples of creative thinking, especially when they use drawings. 'It's fun' (interview, 4 March 2014). A teacher from a school in Talas approaches the active-learning method carefully, however, stating that he does not always use this technique because it 'does not fit in a lesson phase when you explain a new topic to students. They have to listen and take notes first. Absorbing the new knowledge individually gives more depth to class discussions later' (interview, 17 December 2012). Many of the teachers who were interviewed mentioned that they had improved their teaching approaches by attending workshops organized by the Soros Foundation in Kyrgyzstan.[6]

While some teachers have adopted modern teaching approaches, the majority of primary and secondary teachers use predominantly conventional methods. According to Asylbek Joodonbekov (specialist at the KAE), 'Most teachers are mainly engaged in giving instructions, lecturing, explaining, and having their students memorize and retell' (interview, 25 August 2013). Thus, teaching in most schools is still teacher-centred. School materials are outdated and new ones are not well developed. Many teachers do not use active learning pedagogy due to the overload of teaching hours and large class sizes, and because they are poorly trained and they are not encouraged by the school administration and higher levels in the system. Thus, basic education teaching practices need to be improved (Asylbek Joodonbekov, interview, 25 August 2013).

In addition, some teachers do not seem to use assessment strategies that are consistent with interactive and active teaching methods. Assessment is

6 The Soros Foundation is a network of foundations, programmes, and institutions established and supported by philanthropist George Soros to foster the development of open societies around the world. See www.soros.kg/eng/about/osi.html and www.soros.kg/idex_e.html

done normatively. That is, if a particular student gets a good mark,[7] then it is in reference to other students in her class, rather than against pre-determined criteria for learning. Thus, the teachers use norm-referenced assessment instead of criterion-based assessment (Airasian, 1994). Since teachers do not have the capacity to develop assessment criteria, they do not have any option other than to conduct their sessions without pre-developed assessment criteria. There are cases, however, when teachers develop and use assessment criteria on the spot, based on their judgement of what learning should be, but the criteria are not communicated to students. The following example illustrates this. In 2007, a teacher of a primary-level English class in a private school gave the students pair-work drills in which one student asked "When is your mother's birthday?" and the other student answered with the date and then asked the same question. One student, when asked the question, said in perfect English, "I don't know. I can't remember". When it came to giving a grade, the teacher gave this student a low mark. When the inspector asked why, the teacher said, "Well, every student should know their mother's birthday". This episode illustrates that teachers are not using valid criteria for assessing learning outcomes. Since students are not informed of the criteria, students can only guess what their teachers are expecting of them.

The Quality Learning Project (QLP) of USAID (2008-2012) attempted to improve pre-service and in-service teacher training systems and curricula to enable teachers to gain the skills required to ensure students learn higher-order thinking skills such as application, synthesis, problem solving and critical thinking. This project incorporated learner-centred pedagogy and the use of formative assessment techniques. Working with the Kyrgyz Academy of Education, the QLP developed education standards for primary grades and selected secondary subjects. The QLP training aimed at changing the Soviet-style practice of rote learning and focused on interactive or learner-centred methods, by developing teachers' understandings of different levels of thinking and by promoting higher-order thinking. The training showed teachers how to ask students open-ended and conceptual questions, how to encourage discussions, how to ask students for their views and opinions and how to encourage students to ask each other questions. Teachers were

7 Another Soviet legacy is the marking system. Using this system, students are given a 1 to 5 mark (5 being the highest or best) based on their performance compared to other students. In some schools, if students are doing badly the parents might be hauled into the school in a public meeting and shamed. To prevent this, the "1" mark is not given at all these days, and "2" is also given rarely, especially not in high-stakes final year exams.

also trained in how to use pair and group work in their classes. The QLP also introduced alternative, more continuous, forms of formative classroom assessment (Shamatov, 2010).

For the study of the QLP, the researcher interviewed 137 teachers and observed their lessons to determine whether the teachers were using techniques, approaches and tools that promote the acquisition of higher-order thinking skills among students (Shamatov, 2010). The QLP study found that the teachers in the sample did not use active teaching methods and instructional strategies. These teachers rarely encouraged higher-order and analytical thinking in their classrooms. They did not ask complex higher-order thinking questions; instead, most of their questions were lower-order and factual only. The large majority (88 per cent) of these teachers did not encourage their students to ask questions, instead they themselves asked questions. They also rarely encouraged student discussion and debates in their classes, and did not ask students for their opinions. Their students passively listened to the teachers' explanations or they simply responded to the teachers' questions mechanically (Shamatov, 2010, p. 44).

The QLP study found, however, that there were some progressive teachers who worked on their own professional development by attending various seminars and workshops. A school teacher said, 'I wish I had learned all what I am teaching now when I was studying at university [in pre-service training]. I came without good methods and I had to relearn them here at school and by attending seminars' (interview, 14 February 2014).

The responses to the QLP Baseline Study (Shamatov, 2010) showed that out of total 137 teachers in the sample, 33 of them (24 per cent) use interactive or active methods regularly (every lesson) while 65 (47 per cent) use interactive or active methods once a week. When these teachers were asked to describe active or interactive methods, however, only 54 per cent of them were able to do so (Shamatov, 2010, p. 42). Moreover, only 9 out of 137 teachers (6.6 per cent) justified the use of active or interactive teaching on the basis of lesson objectives and the same percentage on the basis of students' learning needs, and even fewer (5.1 per cent) on the basis of subject content.

The study also showed that the teachers rarely encouraged higher-order and analytical thinking in their classrooms. Only 25.5 per cent of the teachers asked complex questions, only around 14 per cent of the teachers encouraged student discussion and debates in their classes, and only 27 per cent asked students for their opinions (Shamatov, 2010, p.42).

The lesson observations likewise showed that the great majority of teachers predominantly use whole-class activities, and rarely use group and pair work. The study found that half of the observed teachers (53 per cent), 84 out of 158, promote active student participation, but they do so in whole-class activities, while only six of the teachers used small groups and only one teacher used pair work (Shamatov, 2010, p. 46). This may indicate that the teachers are not familiar with this method of teaching-learning.

Analysis of the interactions observed between teachers and learners found that only around one third (31 per cent) of the teachers engaged in discussions with their students and only 29 per cent of the teachers encouraged students to express their opinions (Shamatov, 2010, pp. 46–47). From this is possible to conclude that the most interaction between teachers and students are initiated and guided by the teachers.

Observations of the types of questions asked by teachers and students showed that most teachers (88 per cent) asked questions during the lessons, but students rarely had the opportunity to ask questions (Shamatov, 2010, p. 47). Only 19 per cent of the teachers encouraged their students to ask questions, and only 14 per cent of the teachers gave frequent opportunities for their students to ask questions. Only 9 per cent of teachers required their students to ask other students questions and only 6.3 per cent of the teachers asked students to answer other students' questions. Only five teachers out of 158 normally asked complex (higher-order) questions.

Regarding the kinds of activities that the teachers arranged for their students, the observer noted that most teachers (86 per cent) asked their students to respond to verbal questions, 72 teachers (45 per cent) also asked their students to solve problems or do assignments individually, and only 11 teachers asked their students to engage in debate in the classroom (Shamatov, 2010, p.47). Student presentations were also not common in the observed classes, with only 40 per cent of the teachers encouraging their students to present their work in class. The lesson observations also found that only 24 per cent of the teachers began their lessons by introducing the lesson and its objectives (Shamatov, 2010, p. 42). A KAE representative noted that, 'For many teachers the main and single source for the whole lesson is a textbook. It seems that if there is a textbook the teacher is armed to teach'.

Akylbek Joldoshov, an education expert with an international development organization, noted that teachers mostly focus on a few active students during the lessons while ignoring the rest. He observed that normally only

the top students (about 10 per cent) are asked questions in every session (interview, 5 May 2010). The researcher found, however, that only 21 per cent of teachers focused only on a few students (Shamatov, 2010, p. 47).

Three examples of typical lessons that were observed by the researcher are given below. Two of these observations were conducted in 2002 (Shamatov, 2005), the third observation was conducted in 2007. Ainura is a young female biology teacher from an urban school and Kanybek is a young male history teacher from a village school. The third teacher, Aigul, teaches English in a rural school. Their lessons provide insights into teaching practices in Kyrgyzstan.

### Biology teacher from an urban school

The usual pattern of Ainura's classes is as follows. Ainura enters the room, and greets her pupils, who rise to their feet to greet her. The pupils then take their seats and Ainura checks attendance, going through the class register. She then checks the pupils' homework by randomly asking questions or by passing along the rows of desks to see that pupils have done the written assignment. She warns pupils who failed to prepare the assignment at home; she sometimes gives them bad marks and tells them to prepare the assignment at home and show it to her later, after school hours. Ainura then explains a new theme and consolidates the material by asking questions to check comprehension. If the pupils have not understood the new theme, Ainura goes through the material once more. At the end of the lesson, she gives good marks to the active pupils who respond well, and gives bad marks to pupils who fail to respond when questioned.

Ainura generally uses teaching methods that she learned during her formal teacher education courses at the university and from observing other teachers. She uses lecturing, question and answer interactions and discussion. She explained that she mostly uses the lecture method because of time pressure and the need to cover all the material. She noted that, 'If we just keep on discussing, then we don't get anywhere. I have to hurry them up and then I just provide information, hoping that they will understand what I am explaining'.

Below is a transcript of the lesson that Ainura conducted on 10 December 2001. It was a biology lesson with Class 10B (Shamatov, 2005, pp. 169–71). The 12 girls and 14 boys in the class sat in pairs in three rows of desks, all facing towards the blackboard and the teacher's table. Some pupils hung their coats on the hooks at the back of the room, but several of them sat with their coats

on, because the temperature inside the room was around 0 degrees Celsius. The names of the students have been changed to protect their privacy.

## Observation notes of a biology lesson

***Teacher:*** *Salamatsynarby* (Good morning).

***Pupils:*** *Salamatsyzby, ejeke* (Good morning, teacher).

***Teacher:*** OK, pupils. Did you read your homework? Let us review it. Who will tell us how animals survive when change takes place?

***Pupil:*** The animals also change to adapt.

***Teacher:*** How do they change?

***Pupil:*** They change their colour, their lifestyles….

***Teacher:*** Anything else?

***Pupil:*** They survive by natural and artificial selection…

***Teacher:*** What do you mean by that?

***Pupil:*** Natural selection is when nature selects animals, and some of them survive and others die out… . Artificial selection is when people select some animals or birds artificially.

***Teacher:*** OK. Now answer what are ontogenesis and phylogenies? (She quickly switched to another question… She addressed one of the pupils). Bakyt, answer this question. What is evolution?

***Bakyt:*** *Ejeke*, I don't know because I was absent from the last lesson.

***Teacher:*** So what if you were absent? What is your last name?

***Bakyt:*** (with hesitation) It's Mamytov, ejeke… . Please don't give me a "2". Let me prepare and respond next lesson?

***Teacher:*** You were to prepare homework whether you came to class or not…. You will do it as *otrabotka* (make-up work). (She put a bad mark in her notebook. Bakyt sat back in his chair dissatisfied). Now you know that you have to prepare this assignment and report to me after school hours. (Turning to the whole class) Now, another question. What is evolution? … You cannot learn Biology without knowing about evolution…. First,

the most primitive living beings appeared. Then you know that evolution took place from simple to complex growth. More advanced animals with backbones (the vertebrates) appeared. Then big animals like dinosaurs appeared. Now answer my question. What is the difference between micro- and macroevolution? (Looking at a boy in the last desk) Kanat, respond…

***Kanat:*** It is the gradual change of species… No, it is a change across species… (murmured and looked for help from his peers, and finally gave up) I don't know, *ejeke*.

(Two girls from the front row raised their hands to respond.)

***Pupil:*** *Ejeke,* can I respond?

***Teacher:*** (with firm voice and looking at Kanat) Microevolution is the gradual change within groups of species. And macroevolution is change across species. Have you understood?

***Kanat:*** Yes, *ejeke*.

***Teacher:*** (to the whole class) Now, all animals have tails. Animals and human beings have similar body structures (showed a picture of skeletons of a dog, a monkey and a human). They all have heads, bodies, and tails. They have blood circulation….

(Three pupils at the back whistled and hummed, showing no interest in what she was explaining. The teacher stopped and quickly began asking those boys some questions [the questions are not noted here]. The teacher then moved on.)

***Teacher:*** What is the difference between animals and birds?

***Pupil:*** Birds have wings, and we do not….

(Three boys in the back row kept talking about something. They distracted some pupils who sat close by. The teacher stood in front and continued teaching without paying attention to those who were speaking at the back).

***Teacher:*** How did dinosaurs disappear? (She waited for a few seconds and began responding herself)… They disappeared due to rapid climatic change in the world caused by catastrophes; the scientists believe that large meteors fell to the surface of the Earth. Because of it dinosaurs became extinct.

(She noted the boys at the back were talking and addressed a question to them).

***Teacher:*** What is evolution?

***Pupil:*** Sorry *ejeke*, what did you ask?

***Teacher:*** (with a firm voice) You heard the question. What is your last name?

***Pupil:*** It's Aliev. Evolution is development. It is growth.

***Teacher:*** What kind of development? Development since when?

***Pupil:*** Since life appeared on earth….

***Teacher:*** When did life begin on earth? (She continued asking questions from those pupils who were making noise).

***Pupil:*** During the Archaeozoic period….

***Pupil:*** No teacher. There was no life during the Archaeozoic period. Life appeared in the Proterozoic period.

***Teacher:*** OK. What is the main driving force of evolution?

***Pupil:*** I… I forgot… It was … (he murmured something which was not clearly audible).

***Teacher:*** No, it is not. It is heredity. That is the main thing. Animals have been living from the very beginning because of heredity. And of course they will continue in the future because of heredity. Heredity and natural selection are the driving forces of life. And what is heredity?

(The teacher noted that some girls from the front two benches began speaking among themselves and she turned the question to the whole class).

***Pupil:*** Heredity is human reproduction. Offspring take the genes of their parents and they look like their parents.

***Pupil:*** Sometimes a child may look like a neighbour too (several pupils giggled about the joke).

***Teacher:*** (with a serious look and ignoring the joke and laughter) Look at the body structure of a human (showing a picture of a man). What is the origin of heredity? How do animals reproduce? (Pupils burst into laughter. Some girls seemed to be embarrassed).

***Pupil:*** Animals are born after their parents have sex… (Laughter again).

***Teacher:*** True. Why are you laughing? (Turning to the whole class rather seriously and trying to show that it was a serious matter). Yes, it is true. In such a way reproduction takes place. Otherwise animals cannot be born. In such a way you will also continue heredity, won't you? (Laughter).

***Pupil:*** Yes, *ejeke*. But we need to get married first, *ejeke* (Laughter).

***Teacher:*** Be serious. You should learn these things. You are now adults. If you do not learn these concepts, you will remain children. If anyone is interested to know more about how humans reproduce, you should come to additional courses in genetics. I will teach those concepts in-depth. If anyone wants to register for those courses, come after class; I will be here. Did everyone understand heredity? Now what was the second concept? Natural selection… What is it? Who can tell me? (Three pupils raised their hands, but the teacher began explaining it herself).

… Natural selection is when humans and animals struggle for existence. They choose suitable places to survive and live. All animals and plants that we have now have survived this struggle. We have many records to show that many animals and plants did not survive. You should know all these definitions by heart. You should be able to explain to everyone who asks you. [Several pupils were talking].

… Artificial selection is when humans select which species should continue. For example, hybrids such as mules. It is a crossbreed between horses and donkeys. Mules are very strong, but they cannot reproduce. Plants can also be grown by artificial selection. For example, Michurin, a famous Soviet biologist, conducted a lot of experiments with plants. The idea of crossbreeding of plants was successfully used in agriculture during the USSR era.

***Teacher:*** Now we have finished the review of the previous lesson materials. I hope everyone understood. It is important to review and refresh our memories. Now, write down the new theme for today in your notebooks (she wrote the plan on the board). Today we will learn the following: "Classifications of Plants" and "Animals are the Reflections of Evolution".

***Plan:***
Classification groups;
*Convergatsia* (similarities of marks due to similar living conditions);
Principles of modern classifications…

(The teacher turned to class and made sure that everyone copied the theme and plan from the board).

***Teacher:*** Now, look here. We will discuss these three concepts today. Before Darwin there were many people…

(The bell rang at this moment. The pupils got up and began putting their books and notebooks in their bags and some of them grabbed their coats from the hooks. They did not wait for the teacher to announce that the lesson was over and they went outside).

***Teacher:*** For the next lesson, read Chapter 11 on pages 49–52. Come prepared.

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This transcript of the lesson provides insights into this teacher's teaching practices. It illustrates how she interacts with pupils, checks homework, assigns tasks to do at home, assesses, marks and deals with classroom management issues. Ainura started the lesson by asking questions to review the previous lesson's materials and make connections with the new lesson. She asked questions quickly, one after another, because, as she later observed, 'I wanted to cover materials that I planned for the lesson and keep the pupils' interest and attention on the class'. Ainura used questioning for classroom management purposes as well; she asked questions to draw the attention of some pupils who were off task. She explained this by saying, 'When I ask them questions, they realise that I may ask them any time and they have to be ready to respond'. The lesson indicates that Ainura has a didactic approach to teaching and she uses the transmission mode of content delivery. This lesson demonstrates a typical teacher-centered approach. In brief, her main method was to give her pupils the content and then ask questions to check their understanding. Ainura underestimates her students' abilities to analyse and think critically. She does not give students opportunities to ask questions themselves and she doesn't allow students time to answer her questions, and learn from their mistakes if they make them, instead she answers the questions herself.

The box below describes the teaching approach taken by Kanybek, a history teacher in a rural school.

History teacher from a rural school

The teacher, Kanybek, developed his teaching ideas and practices on his own and by observing other teachers. He strongly believes in the existence of certain objective historical truths and thinks his job is to impart that knowledge to his pupils. Lack of new textbooks forces him to use the old Soviet-era textbooks or to lecture his pupils from his written conspectus. He questions the pupils' understanding and provides responses if the pupils do not understand certain concepts. Even though he encourages his pupils to explain concepts they have learned, Kanybek controls the substance of the 'truth', which is, in his view, the information presented in the new amendments to the curriculum sent from the ministry. Kanybek wants to establish good rapport with his pupils and encourage them to develop, articulate and defend their own views, but in practice he controls and channels the pupils' thinking and expression. Kanybek attempts to influence his pupils by telling, controlling, advising, setting examples and warning them, and punishing them when they violate rules.

Below is a transcript of a history lesson with Russian Class 10B that was conducted on 20 October 2001 (Shamatov, 2005, pp. 235–37). The theme of the lesson was The Archaeological Monuments in Kyrgyzstan. Before the class, Kanybek mentioned to the researcher that it was a new theme; during the Soviet era the pupils did not study it. Kanybek brought an old map of the Kyrgyz Soviet Socialist Republic to the class; he did not have a suitable new map for this subject. He hung the map in the front of the room. Twelve out of 14 pupils (five boys and seven girls) were present.

## Observation notes of the history lesson

***Teacher:*** Let us proceed with our lesson. What was your homework for today?

***Pupil:*** We were to read the text about archaeological monuments.

***Teacher:*** OK. Did you all read your notes? (Silence. Kanybek continued). You know that not so many historical monuments are preserved in Kyrgyzstan unfortunately. Only a limited number of them have reached us, but many were destroyed over a period of time. Those monuments were destroyed by frequent wars, invasions and natural disasters, and of course, by time.

Written sources tell that there were many towers, mosques, tombs, and other monuments. We have some wonderful architectural buildings remaining. The Tower of Burana is one of them. What do you know about this tower?

***Pupil:*** Burana means *munara* (tower). It is close to the town of Tokmok. In old times there was a city called Balasagun there. Balasagun is famous because a prominent Kyrgyz thinker and scholar, Jusup Balasagyn, lived there in the eleventh century.

***Teacher:*** Good. The *caravan-sarai* of Tash-Rabat also occupies a special place among our historical monuments. Tash-Rabat is situated 70 kilometres south of the ruins of the city Koshoi-Korgon (medieval city At-Bash). It is on the bank of the river Tash-Rabat in the Naryn *oblast*. Unlike others, this monument is located far from the medieval civilization centres. Who can tell us why was it built there?

***Pupil:*** As the name implies, it was used by the caravans that travelled east to west and west to east along the Great Silk Route. Caravans used to stop over in Tash-Rabat.

***Teacher:*** Right. We also have the mausoleum of Shah Fazil. It is an architectural monument built between the eleventh and fourteenth centuries. It is located in Ala Buka District, in the village of Gulistan. It is rectangular and built of fired bricks (baked, not sun-dried). The width of walls is between 163 and 167 centimetres, and the height is 15.37 metres. It has three gates. Inside, it is decorated with patterns, and the ceiling features Arabic and Persian scripts. One of the rulers of the Karakhanid State is buried inside. Who can show us where Shah Fazil is on the map? (He pointed towards the map).

***Pupil:*** (from her seat) It is in Ala Buka District.

***Teacher:*** Okay. … Our government spends a lot of money to protect these monuments. What do you think is the reason for protecting them?

***Pupil:*** To attract tourists….

***Teacher:*** Yes, that is one of the reasons, but it is not the main reason….

***Pupil:*** They have historical value for us….

***Teacher:*** That is right. We have so many monuments and other ruins. They tell us about our history. Despite the fact that there are very few historical monuments in Kyrgyzstan, their historical significance is great. They are

protected by the government. You know there are many reasons that those monuments were built. For example, there is the fortress of Shyrdakbek. This fortress bastion was built between the tenth and twelfth centuries. It is in Ak-Talaa district, north of Cholok-Kaiyk (village), on the bank of the Alabuga River. It has a rectangular shape and its southern walls are 117 meters in length. It is in this area (he pointed at the map). It was built to protect the people from external enemies. And then we have monuments of Islamic architecture. Islam came to Kyrgyzstan in the ninth century, so the Islamic monuments were built after that. Unfortunately our so-called "Soviet party activists" destroyed them because they 'took the head when they were told to remove a hat'.[8] What other archaeological monuments do you know?

***Pupil:*** There is Koshoi-Korgon. It is in Atbashy.

***Teacher:*** Yes, Koshoi-Korgon, a significant trade-city, was built in rectangular form and was 245 to 250 square meters in size. The heights of the remains are between 4 and 8 metres, and 60 fortress bastions can be seen: 19 in the north, 13 in the south, 17 in the east and 11 in the west. There were gates on all four sides. Unfortunately, the walls of the buildings were completely destroyed because of agricultural works. The artefacts indicate that they were from the tenth and twelfth centuries.

***Pupil:*** We also have Babur's[9] house on the top of our saint Sulaiman Mountain – Sulaiman Tak (*Takht-i-Sulaiman*) in Osh.

***Teacher:*** So what do you know about it?

***Pupil:*** Babur's house was destroyed during the USSR era. Then it was rebuilt recently. Now people can see the house of Babur on the top of the mountain. Many Muslims from the Ferghana valley come for pilgrimage to Sulaiman Tak.

***Teacher:*** So, it is our pride. What we should do?

***Pupil:*** We should protect it, plant trees, keep it clean and pass it on to our future generations.

8 A Kyrgyz saying meaning that one overdoes things to please the authorities.

9 Zahir ud-Din Babur (1483–1530), a prominent poet and a founder of the Great Mogul Empire in the Indian subcontinent, built a house on the top of Sulaiman Mountain in Osh in 1496–1498.

***Teacher:*** Good.

***Pupil:*** There is a tower in Özgön town too.

***Teacher:*** OK. Yes, let us discuss about Özgön tower in our next lesson … the time is coming to an end. Several pupils were active and prepared for today's lesson well. I give Aida 'five', Sanjar and Jyldyz also 'five', Nargiza – I give you 'four' – I noted you read homework at home and prepared, so I can see you made good progress. I will ask others the next lesson. Now, take your homework. At home, read your conspectus about monuments again; in the next lesson I will teach you about Towers and Stone Monuments.

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This transcript illustrated this teacher's teaching approaches, including how he interacted with his pupils, dealt with pupils' attendance, checked homework, explained concepts and assigned homework. He went through the homework by asking pupils random questions.[10] He revised the previous lesson material and examined whether pupils had understood the concepts. He then started what he called 'teaching' (introducing a new theme) by lecturing, retelling, asking questions (directed at the whole class and to individual pupils), and responding to pupils' questions. At the end of the lesson, he gave some pupils marks for their performance and assigned homework.

His teaching beliefs and practices reflect the conventional teacher-centred approach. Kanybek used a combination of methods: lecture, question-answer and discussion. His predominant method was the lecture, however, which he explained as being because he wanted to cover the material within the limited time allotted for history lessons. He commented, 'I teach the most important aspects of the theme, and encourage the pupils to study the rest on their own'. He dictated his conspectus to his pupils and had them copy the material to read for homework. By using the lecture method, Kanybek addressed the challenge of the lack of history textbooks, but he also believed his lecturing was preparing his pupils to be able to study at university. He said, 'If I lecture and have the pupils write down notes from my lectures quickly, then it will be very helpful for them when they go to university, because I learned from my university experience that writing notes in a lecture is really tough'. Kanybek believed that teachers' success was usually measured by the number of their pupils who entered higher education institutions.

10 In other lessons, Kanybek called the pupils' names from the class register to make sure that pupils who had not responded in previous lessons got a turn to respond.

While conducting his lessons, Kanybek faced the challenge of his pupils' lack of motivation. He struggled to motivate the pupils. Initially he focused on only those pupils who wanted to learn. He noted, 'First, I thought 'why should I bother about those who don't want to learn?' He asked questions of those pupils who prepared their lessons and he concentrated only on them. While a few pupils studied hard, the rest merely idled. He adopted this strategy on the basis of his university education, where most of his professors left it up to the students to study rather than worrying about those who did not want to study. Kanybek eventually changed his approach, however. He felt uncomfortable that many of his pupils were not learning, and he also received criticism from the school administrators and his mentor about neglecting many of his pupils. Kanybek then began focusing on all the pupils, asking everyone questions and motivating them to study, and explaining to them that they needed to study well to succeed.

From the observations of the lessons of Ainura and Kanybek and others, it can be concluded that teacher-centred approaches are common in Kyrgyzstan. These teachers mostly conduct whole-class activities and rarely engage in activities that use small groups and pair work. They spend most of their time asking questions and explaining, and their questions are lower order rather than thought provoking (higher order).

Next is a transcript of a lesson that was observed in 2007. This was an English language lesson for Grade 7 students in Jalal-Abad *oblast* of Kyrgyzstan. The desks in the classroom were arranged in a horseshoe shape, rather than all facing the front of the room. Eleven out of 14 pupils (four boys and seven girls) were present. The four boys were seated together on one side, with the girls in the centre and on the other side of the horseshoe. This lesson featured many elements of interactive and learner-centred teaching approaches. It was conducted by a teacher named Aigul on 7 September 2007.

## Observation notes of an English lesson

***Teacher:*** Good morning (in English)

***Pupils:*** Good morning, teacher (in English)

***Teacher:*** I cannot hear well. Can you repeat? You should greet loudly and enthusiastically. Good morning.

***Pupils:*** Good morning (louder)

***Teacher:*** Good.

(Teacher wrote the date on the board)

***Teacher:*** Now, can you tell me what date is it today?

***Pupils:*** It is the 7th of September (in chorus).

***Teacher:*** Very good. What day of the week is it today?

***Pupil:*** It is Friday today.

***Teacher:*** Very good.

***Teacher:*** Today we are going to talk about school in our lesson and we will review grammar. Past Indefinite Tense, do you remember what it is? Did you review it over the summer break?

(No one responded, so the teacher repeated the question three times, then three girls said that they had reviewed it.)

***Teacher:*** Now, let us work in small groups. Count 1 to 3 and make groups according to your numbers.

(Pupils counted 1 to 3, and then they moved into three groups.)

***Teacher:*** I am now going to share instructions. Please listen to the instructions attentively. I would like you ask questions from each other, in English, about what you all did during the summer break. Let us talk about what you did during the summer break and where you spent your summer holidays.

(Students asked each other and responded to their questions.)

***Pupil:*** I spent my vacation in *jailoo* (summer pasture) in the mountains with my grandparents.

***Pupil:*** I spent my vacation in Bishkek and we visited many parks.

***Pupil:*** I spent my summer holidays in Issyk-Kul and I enjoyed nice weather and swimming in our beautiful lake.

***Pupil:*** I worked on our farm in the summer.

***Teacher:*** Now, can someone in your groups share what you talked about in your groups and what you learned about each other's summer breaks?

(Pupils responded.)

***Teacher:*** Okay. We will give a prize to the winner at the end of lesson. The winner will be the student who is the most active and responds to the most questions.

***Teacher:*** Now, let us move to the next activity. It is a 'true and false' activity, and be prepared for that. You should prepare true and false statements about Kyrgyzstan and then read your sentences; then other students should decide which sentence is false and which sentence is true. Are you ready?

***Pupils:*** Yes. (The teacher tried to involve most students in this activity. The students worked in small groups and prepared true and false statements. Then, one student from each group read out their statements and other students guessed which ones were true and false.)

***Pupil:*** Kyrgyzstan is a multicultural state situated in Central Asia.

***Pupil:*** True.

***Pupil:*** Bishkek is the capital city of Kyrgyzstan.

***Pupil:*** True.

***Pupil:*** There are many beautiful seas in Kyrgyzstan.

***Pupil:*** False.

***Pupil:*** Lake Issyk-Kul is the most popular place for tourists.

***Pupil:*** True.

***Pupil:*** There are many lions and elephants in Kyrgyzstan.

***Pupil:*** False.

***Pupil:*** The population of Kyrgyzstan is more than 7 million.

***Teacher:*** Bakyt, can you tell us whether this sentence is true or not (the teacher tried to involve a timid boy in the activity).

***Bakyt:*** False.

(All students participated in this activity and even those students who did not say much, still seemed to participate, as they listened attentively and they often nodded when others were speaking.)

***Teacher:*** We have now revised our ideas of Kyrgyzstan.

***Teacher:*** Now, let us start the next activity. I would like you to open your textbooks and read the text 'Schools in England'. After that, you will need to write about your understanding of this text on these three posters. One of them, as you see, is about the school teachers, the second one is about students and the third one is about school subjects.

(Students read the text individually and after about seven minutes they started to write their understanding on the posters.)

(Students later moved from their posters to their peers' and corrected each other's mistakes. At the end, one student from each group presented their poster.)

***Teacher:*** Okay. I hope you now know about school system of England. At home, I would like you to compare the school systems of Great Britain and Kyrgyzstan and write about them. We will discuss it in our next lesson.

(Most students wrote down the homework assignment in their notebooks.)

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In this lesson it was observed that the teacher conducted several activities to promote active learning (group work, presentation, students asking questions from one another, and a game and competition). The teacher tried to involve the maximum number of students, though three girls were more active and responded more than others. Another positive thing was that she tried to engage the students to share their own experiences regarding what they did during the summer vacation.

Although this teacher tried to adopt non-conventional methods of teaching, she still had a didactic approach to teaching. Thus, the lesson had elements of both active and conventional lessons. On the one hand, the teacher tried to do many modern activities as described above, on the other hand, the teacher still dominated the class activities. She spoke most of the time, asked questions and expected the students to respond, and when the students could not respond, she answered her own questions.

## Discussion and conclusions

In recent decades, the Government of Kyrgyzstan has attempted to improve the quality of education in this country and to align it with international standards. Programmes are being implemented to shift from content-based to competency-based curricula (National Curriculum Framework, 2010) and,

at the same time, teachers are being trained to teach differently. Teachers are today expected to enable their students to learn higher-order thinking skills such as application, synthesis, problem solving and critical thinking. In particular, teachers should ask, and encourage students to ask, open-ended and conceptual questions, teachers should encourage discussion, and should ask students for their views and opinions.

The findings of this study indicate that the curriculum reforms have had only a limited impact so far on teachers' pedagogical practices. This was clearly seen in the results of the PISA 2006 and PISA 2009 (Shamatov, 2014 and Shamatov and Sainazarov, 2010) as well as in the results of national assessments such as National Scholarship Tests (Shamatov et al., 2014), in which only a small fraction of urban children, primarily those from elite private institutions, achieved the highest scores and proved capable of responding to tests that measure higher-order thinking skills. Kyrgyzstan decided not to participate in PISA 2012, being afraid that the students of this country would end in the lowest position again. It is necessary, however, to learn from the poor results and to continue to attempt to improve education quality. Scholars and educators need to actively advocate for re-engaging with PISA in the future, for example in PISA 2015. Participation in PISA competitions would enable scholars and educators to track changes in the literacy level of the Kyrgyzstan students, assess factors affecting learning outcomes and effectiveness, learn from successful education approaches used in world practice, and elaborate recommendations and strategies to reform Kyrgyzstan's education system.

The findings of this study also indicate that there are issues related to equity and access to good quality education. The post-Soviet education policy officially endorsed the diversification of schools, resulting in the creation of a 'new type' of schools, which further stratified Kyrgyz society, and today only a small number of parents can afford to choose good quality education for their children (Shamatov, 2013). The clear disparities in the quality of education that existed during the Soviet era between Russian- and non-Russian-secondary schools persist today. Korth and Schulter (2003) observed that Russian-secondary schools continue to offer a better standard of education than schools taught in Kyrgyz and other local languages. Russian-secondary schools continue to enjoy high prestige and are attended by children of various linguistic backgrounds, while Kyrgyz-secondary schools are attended exclusively by ethnic Kyrgyz children (Korth and Schulter, 2003).

One of the reasons for the limited impact of reforms is that pre-service teacher training in student-centred methods has by and large been neglected. While some in-service teacher training in modern methods has been provided, including by international agencies, this training has had limited impact. The majority of teachers continue to use conventional teaching approaches, as seen in the examples of lessons observed in the study. In some cases, these programmes were poorly designed, given the local context, and in most cases the implementers did not work closely with the government institutions that are mandated to offer professional development to the teachers. In general, however, most teachers do not adopt active learning and learner-centred methods because they do not have in-depth knowledge and awareness of the philosophies behind this pedagogy. These teachers did not learn these ideas in their pre-service education, because those institutions have not yet experienced significant reforms. Another key issue restricting the ability of teachers to switch to using learner-centred pedagogy is that the majority of teachers in Kyrgyzstan have excessive teaching hours and heavy workloads.

The lack of impact of the reforms is also a result of broader contextual issues. Since independence, Kyrgyzstan has seen a myriad of international education assistance projects. From the early 1990s, various international inter-governmental and aid agencies, private foundations, philanthropists and international non-governmental organizations (NGOs) have been working actively in the field of education in Kyrgyzstan, with the result that most reform initiatives and documents are conceptualized and designed by international agencies. 'Education system reforms have been driven primarily by the agendas and procedures of the funding and technical assistance agencies' (Silova and Steiner-Khamsi, 2008, p. 10). Such reforms are adopted out of fear of falling behind internationally (Silova and Steiner-Khamsi, 2008, p. 60). Therefore, reforms are imposed externally rather than initiated internally. While the contributions of donors and other international agencies are much needed, there is often dissonance between the discourse of donors and local needs. It is still unclear whether international initiatives truly reflect local needs and bring about sustainable improvements. A KAE specialist noted the following.

> It is true that there are many international organizations working in the education sector, but the problem is that in most cases they choose the education issues and problems for their project themselves without asking the MoES for suggestions. Sometimes, they repeat already implemented projects. Unfortunately, the MoES also does not actively suggest educational issues (interview, 25 June 2009).

This tendency to adopt external solutions rather than generate solutions internally is partly due to a lack of strong capacity among local education experts and policy-makers. Reforms are implemented sporadically with various planning agencies and implementing bodies that do not communicate effectively with each other. Thus, the various components of education, such as the overall curriculum framework, subject-specific curriculum, assessment, teacher training and textbook development are being worked on by different agencies, which often operate in isolation.

There is also no effective coordination between the international and national institutions working in the education sector. Systemic change in the education system is only possible when all stakeholders – both national and international – coordinate their activities and when the initiatives focus on strengthening institutions and sustainability. The lack of systematic, well-coordinated efforts (REP Assessment Specialist, 3 April 2010) often leads to overlap and duplication. Furthermore, most reform initiatives are not institutionalised, indicating a lack of sustainability (Steiner-Khamsi et al., 2007).

These outcomes reflect the findings of Fullan and Miles (1992) who, analysing the history of successful and unsuccessful reforms, assert that most reforms fail because those who push for change do not involve all stakeholders, fail to recognize the complexity of their problems, and adopt superficial and quick solutions. Another cause of failure of reforms is the failure to institutionalise an innovation. To truly bring about the necessary changes, reforms in the education system of Kyrgyzstan must be systematic and sustainable, and based on the inputs of all stakeholders.

Recently, there has been a change in donor behaviour through implementing a sector wide approach, along with putting the government in the driver's seat and, more importantly, building capacity among government staff to develop policies informed by evidence and international experience. The government-led Local Education Group, which includes all international and national donors as members, serves as a forum to discuss education issues and coordinate assistance. World Bank support, via its Rural Education Project, is aligned to the country's sector strategy and plan to implement government-initiated programmes rather than 'donor imposed' projects. Nevertheless, due to low capacity of government education actors, donors continue to mostly lead, if not dictate, current education reforms in the country. There is a need to systemize efforts to develop local capacity (of government staff and teachers) so that there will be a sustainable impact in the long-term and all

teachers gain an in-depth understanding of effective teaching and learning methods and can use these methods to achieve better learning outcomes for their students.

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