

ACKNOWLEDGEMENTS

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Summary: Strengths, challenges and recommendations

The assessment set out here rests on the analysis presented in the background report prepared by Kazakhstan (MESRK, 2013a), the findings of the OECD mission to Kazakhstan and previous OECD work on this country. The framework for the assessment is provided by the analysis of vocational education and training systems developed by both the *Learning for Jobs* exercise –undertaken in 17 countries— and the more recent *Skills beyond School* exercise that is taking part also in several countries. In summary, the OECD review assesses the strengths and challenges of the VET system in Kazakhstan as follows:

Strengths

- Good quality can be seen already in some VET colleges. The colleges visited by the OECD team in Astana, Almaty and Pavlodar offer high quality education and training: they count with updated equipment; the levels of motivation of both teachers and school leaders are high; work-based learning is highly appreciated; and they seem to have well-established communication with employers. Although these colleges might not be necessarily representative of the whole system they are strong evidence that Kazakhstan is able to provide, and it is doing so already in some colleges, VET of good quality.
- Work-based learning is perceived as central to develop VET. By law, all programmes must have a significant amount of work-based learning in Kazakhstan. In principle, this proportion should be at least 40%. This initiative is a positive development as work-based learning offers multiple advantages for all VET stakeholders. Also, enhance work-based learning is one of the central aims of the Kasipkor holding, one of the major governmental initiatives to improve VET in the country.
- Aspiring to an independent certification system. The implementation of an independent certification system, meant to be led by employers in the future (it is led by the Ministry of Education and Science of the Republic of Kazakhstan at the moment), is an important goal for the authorities. Such a development can be helpful in making the system

more coherent and transparent, for both students and employers. Crucially, giving central responsibility to employers in VET certification should be a strong incentive for the system to be used and regularly updated by stakeholders.

- The development of advisory councils. The private sector requires the right context to participate more actively in the development and establishment of good practices in VET. Efforts linked to the creation of advisory councils at different levels (national, regional and sectorial) in Kazakhstan, where employers are meant to play a central role is a very promising development. It is desirable that the National Council involves more school leaders, SMEs and middle-managers from the public sector rather than confining its membership to heads of ministries and representatives of large companies.
- Efforts to improve teachers training. Adequate support and development opportunities for teachers are crucial for the success of VET. There are several efforts to improve teacher training in Kazakhstan. The establishment of the National Centre of Excellence “Orleu” might be seen as one of the most promising of such initiatives as this centre coordinates national efforts previously fragmented across different bodies. This centre monitors the performance of teachers after receiving training support. It would be highly desirable that individual colleges harmonize their programmes and the content of qualification courses with this centre with the aim of measuring the impact of training and detect those teachers in need of support. Also, it should be highlighted that the Kasipkor holding is meant to develop new approaches to upgrade the training and qualifications of VET teachers in general and special disciplines. To do so, modular-based programmes informed by labour market requirements will be prepared by Kasipkor to support VET teachers.

Challenges and recommendations

- Improve quality. The quality of VET in Kazakhstan, as in many countries, is not sufficiently adequate in some specific aspects: i) employers argue that VET graduates do not necessarily gain the skills that firms require; ii) teachers do not seem to have enough access to industry to update their skills regularly; and iii) authorities are conscious that more and detailed information is required for students to inform their education and training choices.

– *Strengthen work to update the VET programmes offered in accordance with labour market requirements; ensure that VET*

teachers' skills are regularly updated with the active participation of employers and through workplace learning; and undertake measures to make it sure that students choices are adequately supported - and their personal preferences balanced -with labour market outcomes information of the VET programmes offered.

- Improve co-ordination in the system while strengthen capacities for the interaction between VET schools and employers. Effective VET systems require adequate co-ordination to ensure the participation of multiple stakeholders of varied profiles. A clear allocation of responsibilities would make co-ordination easier and strengthen employers' participation through national, regional and sectorial councils in Kazakhstan. At the same time, VET colleges should be encouraged and supported to take advantage of their autonomy to offer flexibility in more meaningful ways to facilitate co-operation with employers and other relevant stakeholders
 - *Strengthen the role of the National Council for training of technical and vocational education personnel in order to simplify and consolidate the governance of the system. At the same time, take measures to encourage colleges to make full use of their autonomy and undertake more meaningful interactions with employers and other stakeholders.*
- Strengthen the identity and recognition of postsecondary VET. Despite its size, postsecondary VET in Kazakhstan does not seem to have a clear and strong institutional identity which, in turn, makes it difficult for stakeholders to recognise its distinctive contribution. Stronger postsecondary VET should help industries to tackle a shortage of more advanced technical skills, especially when ambitious upgrading and competitiveness programmes are set out as pillars for economic development and social cohesion. Also, vocational education should be attractive for students that look for opportunities for up-skilling and further education.
 - *Strengthen the identity and recognition of post-secondary VET through: i) meeting labour market needs beyond upper secondary level and clarifying its contribution to economic development and social cohesion; ii) giving a clearer nomenclature to the sector; and iii) considering locate postsecondary VET in institutions with a clear mission to deliver such programmes.*

- Improve assessment and certification processes in VET. Impressive efforts are being made in Kazakhstan to build up a certification system that is independent from colleges. But Kazakhstan should be encouraged to go one step further and give employers a more prominent role in certification. At the same time, professional examinations might be considered as a helpful means to strengthen the validity of this process and facilitating the recognition of prior learning as an additional route for certification.
 - *Strengthen the certification process giving employers more responsibilities as well as improving the examinations associated with certification in order to enhance their validity and facilitate the recognition of prior learning.*
- Support and enhance workplace learning. Although workplace learning is required in VET programmes by law and much effort has been made to secure job internships for students in the country, the VET system in Kazakhstan should be encouraged to continue enhancing the quality of workplace learning as well as improving the framework to facilitate its implementation. At the moment, it remains unclear to what extent workplace learning is truly a standard practice across all colleges in Kazakhstan and how quality is assured.
 - *Strengthen and support the practice of workplace learning in Kazakhstan by enhancing its quality and links with employers through a framework that should aim to include also SMEs.*

Chapter 1

Introduction and initial assessment

This chapter describes the OECD policy study of vocational education and training (VET), the review of Kazakhstan, summarises the main features of the country system and sets out an assessment of its particular strengths. The challenges, dealt with in subsequent chapters, are also listed.

The review of Kazakhstan and its place in the wider OECD study

This review is one of a series of country reports on vocational education and training in OECD and non-OECD countries, prepared as part of a wider OECD study (see Box 1). The series includes *reviews* (such as this one), involving an in-depth analysis of a country system leading to a set of policy recommendations. In addition there are *commentaries*. These simpler exercises are largely descriptive but also including an assessment of strengths and challenges in the country system. The commentaries are designed to be of value as free-standing reports, but are also prepared so that they can become the first phase of a full review, should a country so wish.

Box 1. Skills beyond School: the OECD study of postsecondary vocational education and training

This study addresses the policy challenges arising from the increasing demand for higher level technical and professional skills. It builds on the success of the OECD's previous study, *Learning for Jobs* which examined vocational education and training policy, mainly at upper secondary level through 17 country reviews and a comparative report.

20 separate country studies, involving country visits, analysis and published reports, were pursued. Full country policy reviews were conducted in Austria, Denmark, Egypt, Germany, Israel, Kazakhstan, Korea, the Netherlands, South Africa, Switzerland, the United Kingdom (England), and the United States (with case studies of Florida, Maryland and Washington State). Shorter exercises leading to a country commentary were undertaken in Belgium (Flanders), Canada, Iceland, Romania, Spain, Sweden and in Northern Ireland and Scotland in the United Kingdom. Background reports describing postsecondary systems were prepared for these countries and, in addition, for France and Hungary.

Source: OECD (2010), *Learning for Jobs*, OECD Reviews of Vocational Education and Training, OECD Publishing, Paris, doi: <http://dx.doi.org/10.1787/9789264087460-en>. See also: www.oecd.org/education/vet

This review outlines the main features of Kazakhstan vocational education and training system, and compares its main features with those of other countries. It covers both the education system and the labour market. Drawing in the context of the wider OECD study, this review then provides a brief assessment of the main strengths of the system, and the policy challenges which need to be addressed by Kazakhstan in the future.

This review was prepared using a standard methodology. Kazakhstan authorities provided a background report following which an OECD team made a visit to Kazakhstan during 22 September-2 October 2013, where the

OECD team discussed issues arising with a range of policy makers, stakeholders and staff and students in training institutions.

The background: education, training and the labour market in Kazakhstan

The labour market

According to the World Bank, the Kazakhstan labour force (people aged 15-64) has reached slightly over 9 million people in 2012, an increase of almost 1.5 million since 2000 (World Bank 2014). There has been a slight increase for both genders in terms of participation rates, for men up from 76% in 2000 to 78% in 2012 and for females from 65% to 68% in the same period (World Bank 2014).

Kazakhstan registers relatively low unemployment rates for international standards. According to the World Bank, in 2012, male unemployment averaged 4.3% and female unemployment about 6.4%. Youth unemployment rates (for those people aged 15-24) were slightly lower than those for the total population, that is, 3.8% for young males and 4.7% for young females in 2012 (World Bank 2014). This is opposite to what normally happens in other parts of the world where youth unemployment tends to be higher than total unemployment.

Higher educational attainment offers protection against unemployment also in Kazakhstan. In 2008, 45.1% of the unemployed had only attained primary education; 39.7% secondary education and only 15.2% of them had attained tertiary education (World Bank 2014). At the same time, female workers seem to be more likely to be in vulnerable employment than males, understood as unpaid family workers and self-employed workers. In 2008, 29% of the male employed are in vulnerable jobs compared with 32% of female workers (World Bank 2014).

In 2008, 29% of female employment was in agriculture (31% of male jobs); 12% in the industry (26% of male jobs); and 59% of female employment in services compared with 43% of male jobs (World Bank 2014).

Education and training for young people

Education in Kazakhstan encompasses preschool (kindergarten), primary, basic (lower) secondary, upper (general or vocational) secondary education, as well as postsecondary, higher and postgraduate education (Figure 1). According to the Constitution and the Law on Education preschool (preparing for school - 1 year), primary, lower secondary and

upper secondary education are compulsory and provided free of charge (OECD 2013).

Preschool education

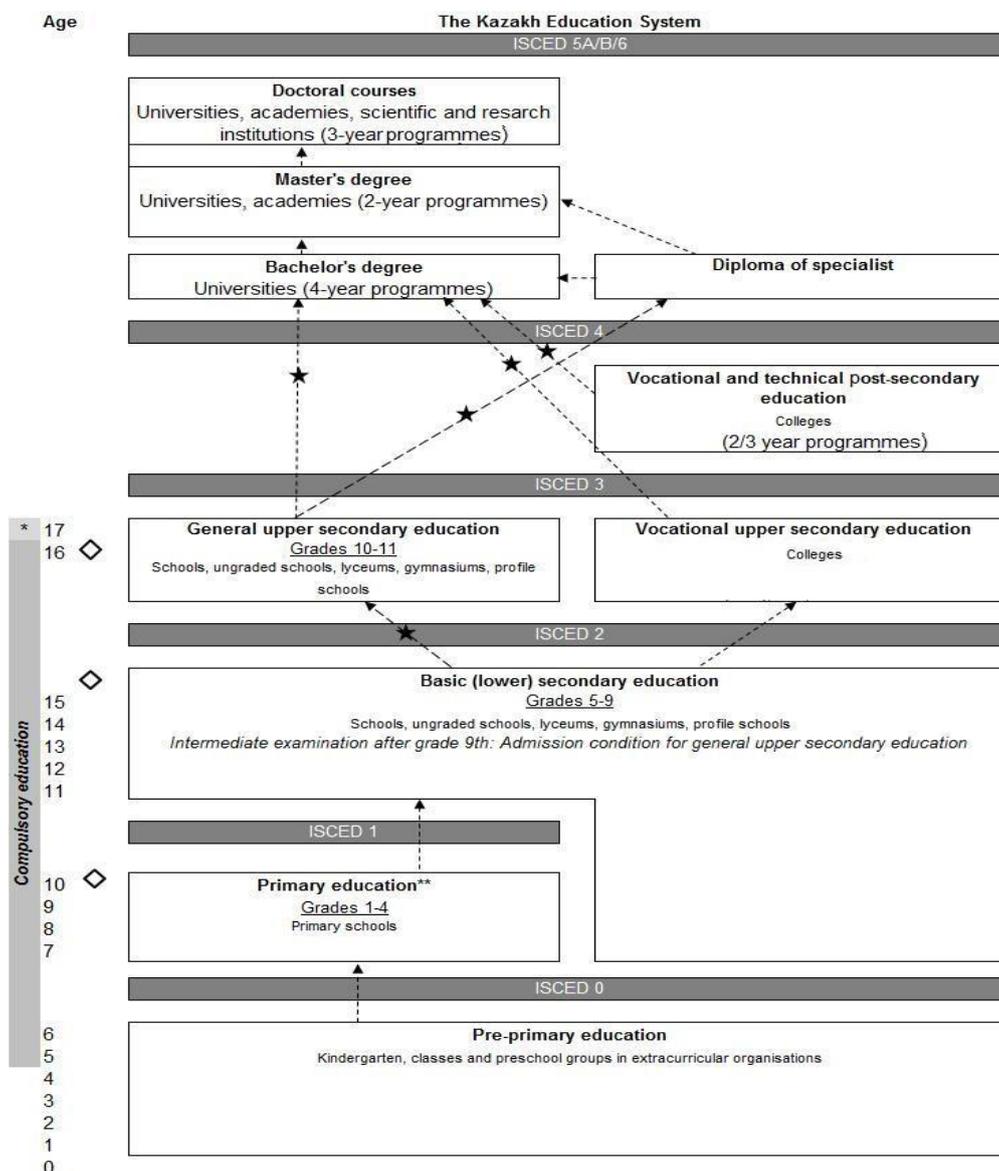
A network of (mostly public) preschool organisations provides pre-school education to children from 0 to 6 years of age. Extracurricular organisations, orphanages and boarding schools ensure pre-school provision to those children left without parental care. The number of pre-school institutions was 8 392 units in 2013 with a net enrolment of 631 489 children, a significant increase from 232 925 children enrolled in 2007 (MESRK, 2013b).

Primary and secondary education

Primary education starts at the age of 6 or 7 and takes 4 years. The duration of lower secondary education is 5 years, followed either by 2 years in general upper secondary education or 3 or 4 years in technical and vocational education. Students that successfully complete general or vocational upper secondary education can attend either postsecondary technical and vocational training programmes or continue to higher education (OECD, 2013).

Secondary education is provided in schools, “ungraded schools” (UGS), gymnasiums, lyceums and schools offering in-depth study in core subjects. Ungraded, or incomplete, schools (*malokomplektnaya shkola* in Russian) are small schools, mostly in rural areas, which do not have enough pupils to give each year group its own class and so teach pupils of different ages together. Even the smallest communities in Kazakhstan are entitled to have a school so long as they have at least five children of compulsory school age.

Figure 1. The Education System of the Republic of Kazakhstan



Notes:

- * Current transition to 12-year model
- ** The Ministry of Education and Science of the Republic of Kazakhstan does not differentiate between primary and lower secondary education. There are only few “primary education only” schools which comprise grade 1 to 4. Primary education can start at the age of 6 or at the age of 7.

- ★ Specific entrance conditions.
- ◇ Diagnostic test or entrance examination

Source: OECD (2013).

Historically, technical and vocational education was provided in professional lyceums, schools, colleges and higher technical schools, but in 2013 the professional lyceums were renamed as colleges¹. There are also a growing number of evening schools for young people in work who left school without completing their general secondary education (OECD, 2013).

Higher and postgraduate education

In 2012/2013 a total of 139 universities, academies, institutes, conservatoires and higher schools offered postsecondary and higher education in the country. Graduates can obtain the academic bachelor degree after minimum of 4 years of study and 129 ECTS of theoretical education and 6 ETCS of practical training. Admission is based on the results of the Unified National Test at the end of grade 11, which is a combined upper secondary school leaving certification and university entrance examination. In 2012 it covered 75% of all secondary school graduates and 69% in 2013. Kazakhstan joined the Bologna process in 2010 (MESRK, 2013b).

Vocational education and training²

In Kazakhstan, VET has three main functions: i) qualification: to provide the population with the skills needed to foster economic prosperity and social stability; ii) employment: to help the population to find a job suited to their preferences and responsive to societal needs; and iii) integration: to help individuals to insert successfully in the society (Ouzoun, 2010). Students wishing to enter VET institutions in Kazakhstan may do so either at upper secondary level (currently after 9th grade) or after upper secondary schooling (currently after 11th grade) (OECD 2013). Overall, upper-secondary and postsecondary VET are provided at the same institutions in Kazakhstan.

Until 2012, two main types of institutions provided VET: colleges and vocational lyceums. Both types of institution enabled students to obtain a professional diploma in more than 180 professions and 15 fields. The colleges of technical path and professional lyceums, formerly known as *Technikums*, tended to focus on training specialists mainly for industry, building, transport and agriculture. Colleges tended to train specialists outside the industrial sphere, for example for primary teachers or health professions, but also in the field of art, theatre or dance (OECD 2013). Since 2012, these types of VET institutions have been called colleges. The Law on

Education now stipulates in Article 1, Paragraph 35, that³: “College” refers to an educational institution implementing education programmes of technical and vocational education, whether at upper secondary or postsecondary educational levels (OECD, 2013).

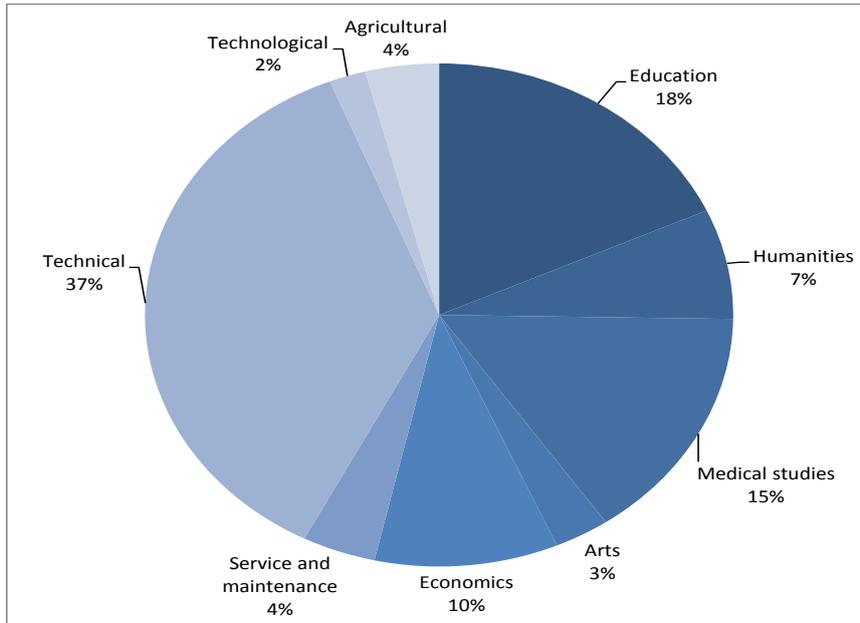
In 2012, a total of 203 974 students were admitted into vocational institutions in Kazakhstan compared with 217 096 students admitted a year earlier (2011). On 1 January 2013, there were 888 VET institutions in Kazakhstan, eight less than in 2012; 499 were public and 389 private. There were 587 310 students studying at those institutions, of which 338 131 students were studying at public VET institutions (about 58% of total) (MESRK, 2013a). In terms of the most demanded specialisations, 37% of the students enrolled were in technical specialties, followed by education (18%), medical studies (15%), agriculture (15%) and economics (10%).

Table 1. Number of VET institutions by region

<i>Region</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>
Akmola	44	43	44	45
Aktobe	40	41	42	42
Almaty	70	73	73	72
Atyrau	23	24	25	24
East Kazakhstan	96	99	100	97
Zhambyl	56	60	56	54
West Kazakhstan	39	39	39	39
Karagandy	90	89	88	84
Kostanai	44	47	48	48
Kyzylorda	34	36	36	37
Mangystau	26	26	26	25
Pavlodar	59	55	55	53
North Kazakhstan	36	32	32	32
South Kazakhstan	92	91	94	99
Almaty city	82	86	87	87
Astana city	32	35	35	35
Republican colleges	19	18	16	15
Total	882	894	896	888

Source: MESRK (2013a).

Figure 2. VET Specialties by Student Population in Kazakhstan
January 2013



Source: Author's elaboration based on Background Report (MESRK, 2013).

From 2011 to 2012, there was a decrease of almost 13% in VET graduates and, in 2013, they decreased a further small 2.2%. At regional level, the most important reduction was experienced in the Zhambyl region (almost 56.6% in 2012) while Mangystau, Kyzylorda and Astana city regions experienced increases during the same period (2011-2013).

Table 2. Number of VET graduates by region

<i>Region</i>	<i>Number of graduates</i>				<i>Annual variation</i>		
	2010	2011	2012	2013	2011	2012	2013
Akmola	5 809	6 352	6 033	5 783	8.5%	-5.2%	-4.3%
Aktobe	7 539	8 442	8 299	7 618	10.6%	-1.7%	-8.9%
Almaty	8 425	9 901	9 974	9 452	14.9%	0.7%	-5.5%
Atyrau	4 572	5 274	4 910	4 942	13.3%	-7.4%	0.6%
East Kazakhstan	11 694	12 139	11 536	10 865	3.6%	-5.2%	-6.1%
Zhambyl	10 324	11 891	7 591	7 307	13.1%	-56.6%	-3.8%
West Kazakhstan	7 276	8 080	6 153	6 075	9.9%	-31.3%	-1.2%
Karagandy	13 757	13 453	12 196	11 518	-2.2%	-10.3%	-5.8%
Kostanai	7 696	7 932	7 736	7 092	2.9%	-2.5%	-9%
Kyzylorda	5 265	6 257	6 346	7 338	15.8%	1.4%	13.5%
Mangystau	4 392	4 632	4 924	5 326	5.1%	5.9%	7.5%
Pavlodar	8 018	8 498	6 895	6 780	5.6%	-23.2%	-1.7%
North Kazakhstan	5 246	5 195	4 533	4 337	-0.9%	-14.6%	-4.5%
South Kazakhstan	16 441	22 299	17 158	19 189	26.2%	-29.9%	10.5%
Almaty city	17 796	19 173	17 202	14 340	7.1%	-11.45%	-19.9%
Astana city	5 586	6 607	6 887	7 274	15.0%	4.06%	5.3%
Republican colleges	385	1 200	361	537	67.9%	-232.0%	32.7%
Total	140 221	157 325	138 734	135 773	10.8%	-13.0%	-2.0%

Source: Elaboration based on Background Report (MESRK, 2013a).

Nowadays, graduates from VET institutions seem to have much better and clearer pathways from college to university in 2013 than they did in 2007, when the OECD and World Bank published the review of Higher Education in Kazakhstan. However it is still not as easy to make this transition as many students expect (OECD 2013:217).

Box 2. The Action Plan for implementing the priority areas of education and science development for 2014-2016.

The Ministry of Education and Science of Kazakhstan has developed an action plan for implementing the priority areas for education and science development in the country for 2014-2016. Regarding VET, this action plan specifies targets and means for: i) increasing the coverage of VET to guarantee equal access and opportunities; ii) improving the quality of teaching and teachers' skills; and iii) creating legal mechanisms and economic incentives to secure partnerships with industry for teachers' training and professional development.

To achieve its 2014-2016 aims, the Action Plan for VET enumerates a series of devices, among them:

- Improving data collection mechanisms in order to identify students' needs more effectively;
- Improving financial planning and infrastructure to enhance access to VET;
- Continuing with the development of Kasipkor holding
- Developing of a national qualifications system;
- Improving the content of VET to make it more responsive to labour market needs and improving its quality in pedagogical terms;
- Increasing the exposure of the system to international standards through partnerships and participation in international events;
- Increasing participation of industry practitioners in the VET sector.

Source: Ministry of Education and Science of the Republic of Kazakhstan (2014).

Kasipkor holding

The Kasipkor holding was created to establish and disseminate best practices in the VET sector in Kazakhstan. The idea behind Kasipkor is that introducing a corporate form of management with the involvement of business would facilitate global best practice in VET. This project involves the creation of two colleges intended to be world-class and four inter-regional professional centres for the preparation of VET teachers. In addition, ten partner colleges have been chosen to introduce international experience (MESRK 2013a:35; Kasipkor 2013). Each college is established in co-ordination with employer partners and it also normally has a partnership with foreign educational institutions. At the same time, these

colleges are expected to use innovative educational and financial approaches in the establishment and development of their programmes (Kasipkor 2013).

The Kasipkor holding contemplates an ambitious dissemination phase of good practices to other colleges. The Kasipkor project considers that these good practices for college success should include: i) provide training in high-demand specialties; ii) develop programmes following international standards and requirements of employers; iii) teachers must have strong workplace experience; iv) colleges must have updated equipment and good college infrastructure; v) programmes must be taught with updated pedagogical materials and methods as well as taking advantage of flexible learning processes; vi) programmes must have a strong workplace learning component; and vii) certification of graduates should be done by employers (Kasipkor 2013).

Previous OECD analysis and recommendations

Previous relevant OECD work in Kazakhstan includes: the OECD Review of Secondary Education (2013); the OECD Private Sector Development Handbook of Central Asia (2013); the OECD Competitiveness and Private Sector Development Review: Kazakhstan (2011); OECD Reviews of Higher Education: Kazakhstan (2007); and the Policy Handbook: Enhancing Skills through Public-Private Partnerships in Kazakhstan's Information Technology Sector (2013).

The OECD Review on Secondary Education of Kazakhstan (2013) recommends: i) improve the status of VET through better infrastructure and programmes; ii) better access for VET graduates to higher education; iii) stronger career guidance at lower secondary level; iv) monitor reforms in the academic sector that might have negative implications for the VET segment; and v) ensure that the current regulation for VET is consistent with the flexibility needed to tailor programmes to meet local labour market needs.

The OECD Private Sector Development Handbook of Central Asia (2013) argues that VET programmes in Kazakhstan need to be tailored to employers' needs through a major involvement of stakeholders in programmes' development. It recommends a major involvement of trade unions and small and medium-sized enterprises (SMEs) in VET. It also encourages better data collection in the field and more research to use such data to support policy development.

The OECD Competitiveness and Private Sector Development Review in Kazakhstan (2011) argues that human capital development is "an essential factor to establishing the mechanisms required to match the supply of skills

to market demand and enhance overall skills in the country” (OECD 2010:25). National objectives should include reducing skills gaps, giving more flexibility to firms when hiring, and creating more effective institutionalised and consultative mechanisms with stakeholders (OECD 2010:25).

The OECD Review of National Policies for Education: Higher Education Kazakhstan (2007) recognises the need to expand VET provision in the country with the creation of new higher technical schools in order to meet employers demand for graduates with lower tertiary vocational qualifications. In addition, as a way to improve the status of VET in the system it is suggested that colleges could be part of the higher education system as well. Also, this review indicates the need for a National Qualifications Framework that reflects national circumstances but capable of “mapping onto the recently adopted European Qualifications Framework” (OECD 2007:208). It also indicates that “close relationships with and involvement of employers should be one of the criteria for institutional accreditation” of higher education institutions (OECD 2007:208).

Finally, the OECD Private Sector Development Handbook: Enhancing Skills through Public-Private Partnerships in Kazakhstan’s Information Technology Sector (2013) proposes that, in order to develop some crucial industries, such as ICT, the country will need to upgrade its secondary vocational education and its tertiary education systems. This report also indicates that the private sector can add specific value by providing workplace training to students through internships and apprenticeships (OECD 2013:18).

Initial assessment of strengths and challenges of the VET system in Kazakhstan

This section of the review provides a brief assessment of the strengths of the Kazakh VET system. This assessment draws on the analysis presented in the background report prepared by Kazakhstan (MESRK, 2013a); the findings of the OECD mission to Kazakhstan; and previous OECD work on this country. The framework for the assessment is provided by the analysis of vocational education and training systems developed by both the *Learning for Jobs* exercise –undertaken in 17 countries— and the more recent *Skills beyond School* exercise that is also taking part in several countries (Box 1). Those challenges identified in the Kazakh system as well as the policy recommendations to face them are presented in subsequent chapters of this review.

Strengths

High standards can be found in Kazakhstan VET already

Kazakhstan is able to reach high quality standards in VET colleges. The colleges visited by the OECD team in Astana, Almaty and Pavlodar offer high quality provision: they have updated equipment; the levels of motivation of both teachers and school leaders are high; work-based learning is highly appreciated; and they seem to have well-established links with employers. Although these colleges are not necessarily representative of the whole system they are strong evidence that Kazakhstan is able to offer good quality provision.

Workplace learning is perceived as central to develop the VET system

By law, **all programmes must have a significant amount of work-based learning** in Kazakhstan. This proportion should be at least 40%. This initiative is a positive development as work-based learning offers multiple advantages for all VET stakeholders. Stronger work-based learning is one of the central aims of the *Kasipkor* holding, one of the major governmental initiatives to improve VET in the country.

An independent certification system

The implementation of **an independent certification system, meant to be led by employers in the future, is an important goal for the authorities** (it is led by the Ministry of Education and Science of the Republic of Kazakhstan at the moment). Such a system can be helpful in making the system more coherent and transparent, for both students and employers. Crucially, giving central responsibility to employers in VET certification in Kazakhstan should be a strong incentive for the system to be used and regularly updated by stakeholders.

The development of advisory councils

The private sector requires the right context to participate more actively in the development and establishment of good practices in VET. Efforts linked to the creation of **advisory councils at different levels (national, sectorial and regional)** in Kazakhstan, where employers are meant to play a central role is a very promising development. At the same time, it would be desirable that such advisory councils involve more school leaders, SMEs and middle-managers from the public sector.

Efforts to improve teachers training

Adequate support and development opportunities for teachers are crucial for the success of VET. There are several **efforts to improve teacher training** in Kazakhstan. The establishment of the National Centre of Excellence “Orleu” (and with regional offices across the country) might be seen as one of the most promising of such initiatives as this centre co-ordinates national efforts previously fragmented across different bodies. This centre monitors the performance of teachers after receiving training support. It would be highly desirable that individual colleges harmonize their programmes and the content of qualification courses with this centre with the aim of measuring the impact of training and detect those teachers in need of support. Also, it should be highlighted that the Kasipkor holding is meant to develop new approaches to upgrade the training and qualifications of VET teachers in general and special disciplines. To do so, modular-based programmes informed by labour market requirements will be prepared by Kasipkor to support VET teachers.

Challenges

Improve quality

The quality of VET in Kazakhstan, as in many countries, faces relevant challenges in different aspects; chapter two deals with three of them. Firstly, many employers in Kazakhstan argue that VET graduates do not necessarily gain skills that firms require; secondly, teachers do not seem to have enough access to industry to update their skills regularly; and thirdly, authorities are conscious that more information is required for students in order to better inform their education and training choices through adequate labour market information about the programmes offered.

Improve co-ordination while strengthen capacities for VET schools and employers

Effective VET systems require adequate co-ordination to ensure the participation of multiple stakeholders of varied profiles. A clear allocation of responsibilities would make co-ordination easier and strengthen employers’ participation through national, regional and sectorial councils in Kazakhstan. At the same time, VET colleges should be encouraged and supported to take advantage of their autonomy to offer flexibility in more meaningful ways to facilitate co-operation with employers and improve responsiveness to labour market needs.

Strengthen the identity and recognition of postsecondary VET

In Kazakhstan, postsecondary VET needs to be reinforced in order to respond more effectively to labour market needs. Stronger postsecondary VET should help industries to tackle a shortage of more advanced technical skills, especially when ambitious upgrading and competitiveness programmes are set out as fundamental pillars for economic development and social cohesion. At the same time, a stronger postsecondary VET segment would make vocational education more attractive for students as it would offer clearer opportunities for up-skilling and further education.

Improve assessment and certification processes in VET

Impressive efforts are being made in Kazakhstan to build up a certification system that is independent from colleges and where employers can play a relevant role. But the three already independent assessment centres closely linked to employers are still in a pilot phase. The current assessment procedure, in place since 2008, has been enlarging its coverage of specialties, students and institutions year after year and the proportion of graduates that has passed the exam has increased to reach 80% in 2012. But this assessment process is still run by the Ministry of Education of the Republic of Kazakhstan. In this regard, Kazakhstan should be encouraged to go one step further and give employers a more central role in the certification process extending to the whole system what it is currently done at the three independent centres. At the same time, professional examinations might be considered as helpful means to strengthen the validity of this process and facilitating the recognition of prior learning as an additional route for certification.

Support and enhance workplace learning

Although workplace learning is required in VET programmes by law and much effort has been made to secure job internships for students, its quality and monitoring should improve. At the moment, it remains unclear to what extent workplace learning is routinely implemented across all colleges in Kazakhstan and how its quality is assured.

Notes

- ¹ Lyceums can also refer to some general education schools, which the Law on Education defines as “educational institution implementing lower and upper secondary education programmes providing extended and advanced education in science and mathematics” (Article 1). These schools are not unaffected by the renaming of VET schools.
- ² For a detailed description of VET institutions in Kazakhstan and their governance system please check the background report elaborated to inform this review by the Information Analytic Centre of the Ministry of Education and Science of the Republic of Kazakhstan (MESRK, 2013).
- ³ The same article stipulates that “lyceum” refers to an educational institution implementing lower and upper secondary education programmes providing extended and advanced education in science and mathematics and that “vocational school” refers to an educational institution implementing lower secondary, upper secondary and/or post-secondary education programmes, including technical and vocational education programmes, in the field of culture and art (OECD, 2013).

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Chapter 2

Improve quality

This chapter sets out recommendations to improve quality in Kazakhstan VET in three specific aspects: i) the labour market relevance of VET programmes; ii) the role of workplace learning for the skills of VET teachers; and iii) career guidance services.

Challenge

The quality of VET in Kazakhstan, as in many countries, faces challenges in several respects; this chapter deals with three of them more specifically. Firstly, employers in Kazakhstan argue that VET graduates do not necessarily gain all the skills that firms require. Secondly, teachers do not seem to have enough access to industry to update their skills regularly. Thirdly, authorities are conscious that better information is required for students to inform their education and training choices.

VET does not fully offer the quality expected to tackle current labour market needs

In Kazakhstan, many employers believe that the workforce is inadequately prepared for those jobs available in the labour market. As Table 3 shows, about half of the firms surveyed in a World Bank exercise identified an “inadequately educated workforce” as a major constraint in the country; this proportion is bigger for large firms and it is substantially higher than both the OECD and Eastern Europe and Central Asia countries averages. Firms in Kazakhstan offer formal training to their own staff at a level similar to the OECD average. In a more recent exercise undertaken by the OECD (2012) 14% of employers identified the difficulty of finding workers with the required skills as a main labour barrier to doing business in Kazakhstan and about 70% of the employers surveyed identify the shortage of adequate workforce skills as a problem (OECD, 2012).

Table 3. Indicators of workforce education and training by firm size in Kazakhstan 2009

(Average values)

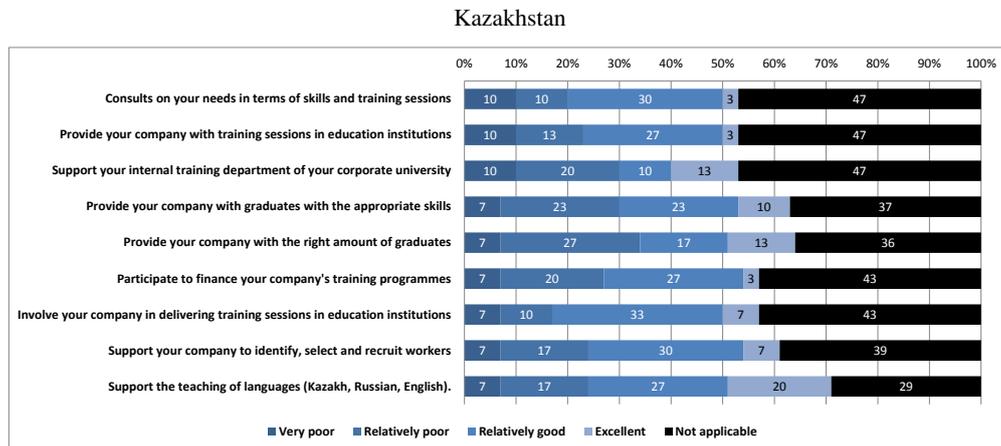
Size of the firm	Percentage of firms offering formal training	Percentage of unskilled workers (out of all production workers) (%)*	Percentage of firms identifying an inadequately educated workforce as a major constraint
World	38	29	28
OECD average	41	23	14
Eastern Europe & Central Asia	39	23	25
Kazakhstan	41	22	51
Small (5-19)	29	16	41
Medium (20-99)	44	24	57
Large (100+)	51	28	58

*This indicator is computed using data from manufacturing firms only.

Source: Calculations based on data from Enterprise Surveys (<http://www.enterprisesurveys.org>), The World Bank.

In Kazakhstan, employers do not seem to be particularly satisfied with the government support they receive to develop workforce skills. According to the OECD Private Sector Survey on Kazakhstan, few employers surveyed (3%) assess as “Excellent” the quality of public sector consultation regarding their needs in terms of skills and training sessions; 30% assess this consultation as relatively good. In the same vein, employers’ assessment of other services is not high: training sessions in education institutions; providing the right graduates with the appropriate skills; or involving the company in delivering training sessions in education institutions are other examples in which a low quality is perceived overall. The area with the best assessment received is the one related to support the teaching of languages, that is, Kazakh, Russian and English (Figure 3).

Figure 3. Private sector’s assessment of public services in the area of skills and training



Source: Adapted from OECD (2012) Private Sector Survey on Kazakhstan.

The capacity of VET institutions to respond quickly to labour market demand is limited by rigid regulation. Colleges’ programmes and curricula are required to conform to the State Compulsory Educational Standards for technical and vocational education and educational programmes devised by the Ministry of Education and Science of the Republic of Kazakhstan (MESRK, 2013:50). Each potential change or adjustment requires the approval of top authorities in a strictly vertical process so individual colleges are not well-positioned to respond quickly to the needs of companies in highly competitive industries that might need a constantly upgraded and updated workforce.

The content of many VET programmes in Kazakhstan is highly theoretical and abstract. Although directors of VET institutions are supposed to approve and implement academic plans and programmes taking into account the views of employers, it is not clear how this works in reality (MESRK, 2013:50). In practice, employers are sceptical about the quality of the mechanisms the public sector has to consult companies’ needs of workforce skills. At the moment, employers’ more practical participation seems to be mainly confined to the terrain of the National, Regional and Sectorial Councils (to be discussed in Chapter 3 of this review).

VET teachers require more support to update their skills

VET teachers and trainers do not receive adequate preparation. The requirements to be either a VET teacher in general disciplines or in industry-specific ones are often too low and do not pay enough attention to the needs of the labour market (MESRK, 2013:88). The Centre for Excellence “Orleu”, based in Almaty, has an ambitious and detailed programme of work that is intended to monitor VET training throughout the country. It is mandatory for teachers to take Orleu’s training courses once every five years at least, but there is no restriction on the number of courses teachers can take voluntarily. But it is not clear to what extent individual VET colleges are able to participate in these training procedures. It seems too early to evaluate the real impact of Orleu on the system. Other examples of strong training practices for VET teachers can be observed in engineering disciplines, but there not seem to be similar schemes for other disciplines.

Kasipkor is also trying to tackle the need for better training to enhance the skills of VET teachers. According to MESRK, the module-based programme developed by Kasipkor to improve the qualifications of teachers, gives central attention to the specificity of VET teacher work. This refers to a combination of an effective educational process while forming professional skills. Each module of the programme developed by Kasipkor is meant to provide step by step an upgrading of teachers’ professional competences and skills, to match their need for practical experience, their involvement in high technology utilization, and their learning of new methods of teaching. This Kasipkor programme is meant to prepare teachers to fulfil integrated professional-pedagogical work that composed both psycho-pedagogical and industry-engineering components. According to MESRK, the remarkable fact is that this programme consists of issues in professional pedagogy; modern approaches in organizing professional and technical training; modules to acquire operational qualifications for the teaching profession; and, very importantly, this programme also includes internships in the industry for teachers.

There is also a shortage of teachers and trainers. The background report and conversations of the OECD team with local stakeholders suggest that the low salary level of VET teachers and trainers is an obstacle for the best candidates. This may inhibit industry practitioners from pursuing a career as vocational teachers (because colleges have to compete with companies) (MESRK, 2013:89).

Students receive insufficient career guidance

Across many countries, more complex careers, with more options in both work and learning, are expanding opportunities. But they are also

making decisions harder as young people face a sequence of complex choices over a lifetime of learning and work. Helping young people to make these decisions is the task of career guidance. But in many countries career guidance faces a number of challenges: too often those offering guidance are inadequately acquainted with labour market issues, with career guidance sometimes playing a subsidiary role to psychological counselling; guidance services can be fragmented and, under-resourced, so that those who need guidance most may fail to obtain it. Also, advice sometimes lacks objectivity because guidance personnel are based in education institutions with a pro-academic bias; relevant labour market information is not always available or readily digestible and comprehensible; and the evidence base on “what works” in career guidance is too weak. Crucially, students need to be well informed of wages and employment prospects in different occupations, to encourage convergence between student preferences and skills needs (OECD, 2010).

Career guidance services in Kazakhstan VET institutions do not seem to have adequate data to undertake their work more effectively. In particular they lack reliable labour market data, disaggregated by industry, profession and regions, as well as salary information and career prospects for graduates. So it is difficult for students and their families to receive good quality information about the labour market outcomes of their choices on education and training.

While career guidance services in Kazakhstan seem to be highly regulated on paper it is not clear how these regulations help them to work better in practice. Each individual VET college advises students on their choices in an *ad hoc* fashion. Approaches include open-doors days, on-site career guidance lectures, presentations explaining the nature of the future profession and employment prospects, among others (MESRK, 2013:76). While this is all commendable, it is not clear if this is underpinned by evidence on different occupations, the need for staff in these professions as well as reliable information on employment conditions.

Recommendation

Take measures to improve the quality of the VET system ensuring the labour market relevance of the programmes offered; ensuring that VET teachers’ skills are regularly updated with the active participation of employers; and pursuing stronger career guidance.

Supporting arguments

This recommendation is supported by three arguments: first, ensuring the labour market relevance of VET programmes should help to improve the status of VET and the labour market outcomes of its graduates; second, stronger measures to refresh the teaching workforce with industry experience will yield many benefits for all parties; and third, stronger career guidance services should help students to inform their investments in education and training with knowledge of local career prospects and labour market needs.

Ensure the labour market relevance of VET programmes

The current procedure for defining programmes and the mix of provision (see Chapter 3 of this review), although undertaken through a decentralised procedure on paper (OECD, 2013), does not seem to reflect labour market needs adequately. Instead, a process that emanates from VET colleges themselves, in close consultation with local employers, would be a good alternative. The new procedure would require VET colleges, when applying for accreditation, to provide an analysis of labour market relevance and prove that the programme is needed to meet labour market needs. These would be two essential requirements for the accreditation file to be submitted to the Ministries of Education and Science, Labour and Social Protection or the National Council for training of technical and vocational education personnel and their corresponding local executive bodies. In other words, the content of programmes and the mix of places offered should be determined in close coordination between individual VET institutions and local employers. Sectorial and local Councils for training of technical and vocational education personnel and VET development should play an essential role as leading the collection of labour market information that should inform the mix of provision needed.

The accreditation procedure for new VET programmes should be transparent and follow clear pre-established criteria. The accreditation analysis should assess labour market demand for the programme based on data at the appropriate level of disaggregation (e.g. sectorial employment/unemployment rates by geographical unit) and an assessment of employment opportunities and career prospects for graduates (e.g. using interviews with HR managers in relevant companies). Any proposal for a new VET programme should also provide strong evidence that it will attract enough students by identifying those geographical areas from which the programme will receive them; it would describe existing related VET programmes and their enrolment numbers, as well as specifying how many additional students might be enrolled in the proposed new VET programme.

For re-accreditation of existing programmes the VET applicant institution may conduct the analysis itself. The analysis of labour market demand of an existing programme must analyse the employment outcomes of graduates, information on the relevance of their studies to the jobs held by graduates, an assessment of the course contents by the graduates with regard to their current employment situation, and institutions should collect feedback from companies and organisations that employ their graduates. Crucially, institutions should be expected to provide information on the number of applicants and enrolled students, as well as updated information on related VET programmes. This accreditation and re-accreditation procedure for VET programmes is modelled on the *Austrian* example (FH Council, 2010).

Making sure that a mandatory proportion of workplace training for both students and teachers in any VET programme actually takes place can also be an effective way to make sure that there is a relevant labour market connection. The commitment to offer workplace training can be interpreted as a strong signal from employers that a specific VET programme is of relevance for them. In 2013, more than 22 thousand agreements between colleges and companies were signed in Kazakhstan; 2 091 teachers undertook internships in the industry and, according to the background report submitted by the local authorities for the elaboration of this review, a total of 170 359 job placements were offered to VET students by companies (MESRK, 2013). However, if we take into account that 587 310 students were registered in VET institutions in 2013, less than one third of them had the opportunity of workplace experience in the course of 2013.

Box 3. Quality Assurance Mechanisms in Northern Ireland

In Northern Ireland, the Quality and Performance Branch of the Department for Employment and Learning undertakes a programme of compliance monitoring visits to contracted suppliers and participating employers. These visits aim to monitor supplier performance in relation to the performance standards set out in their respective contracts. The Education and Training Inspectorate inspects the quality of provision across all further education, training and employment programmes. In addition, all further education colleges, training suppliers and lead contractors of the Department's employment programme are required to submit an annual self-assessment of the quality of their own provision (DEL, 2013:43-53).

DEL publishes an annual assessment of quality and performance across its key programmes and provision. The latest report, *Delivering Success through Excellence* published in May 2012, seeks to augment and give context to the work of the Department's Quality and Improvement Adviser and wider assessments of quality, such as those conducted by the Education and Training Inspectorate and the Quality Assurance Agency. The report provides an update on a range of important performance indicators across the spectrum of DEL provision and outlines the progress that has been made on the implementation of the Department's Quality and Performance Action Plan (DEL, 2013:54).

Source: Álvarez-Galván (2014) and Department for Employment and Learning (2013), *Skills beyond School: OECD Review of Post-Secondary Vocational Education and Training. Background Report for Northern Ireland.* Northern Ireland Executive.

Ensure that VET teachers skills are regularly updated with the active participation of employers while facilitating part-time contracts for practitioners to teach in VET

To sustain and update their knowledge and industry experience, VET teachers should be encouraged to spend time at the workplace. This might involve part-time teaching combined with part-time employment in the industry, or short periods spent in industry for full-time teachers. For example, in Finland, the *Telkkä* programme allowed teachers to spend two months on-the-job and brought a wide range of benefits to teachers (Box 4).

Box 4. Teacher-worker pairing: co-operation between VET

The Telkkä programme in Finland was based on close co-operation between teachers and workplace trainers. It aimed to improve the ability of VET to respond to the needs of working life. The programme included a two-month on-the-job period for teachers, during which teacher-worker pairs were formed. This offered an opportunity for teachers to update their professional skills and for workers who also work as workplace trainers to improve their pedagogical skills. The training period was preceded by a seminar and planning (to clarify goals and expectations) and followed by feedback from teachers and workers and dissemination to the broader community.

Teachers reported a wide range of benefits, such as increased familiarity with recent work practices and requirements and the equipment used, easy access to firms for study visits, the contacts necessary to invite people from industry to give lectures at their VET institutions, increased confidence, respect from students and motivation. The training period also allowed teachers and workers to discuss issues related to workplace training for students and improve training plans and assessment methods. Participants improve their skills and self-esteem, and disseminate knowledge to other colleagues. This exercise has been evaluated by the Economic Information Office in Finland as one of the best ways of developing teachers' professionalism.

Source: Cort, P., A. Härkönen and K. Volmari (2004), PROFF – Professionalization of VET Teachers for the Future, CEDEFOP, Thessaloniki.

Incentives are needed for VET institutions to support and encourage teachers to upgrade their skills. For example, part-time teachers may be more difficult to handle administratively and it may be complicated to replace teachers during the period they spend in industry. One option could be to include arrangements for skills updating in institutional evaluation criteria, or include them in development contracts concluded between each institution and the corresponding ministry (Field et al, 2012).

During the visits to several colleges in Kazakhstan, the OECD team was told that the current tax legislation makes it difficult for teachers to have two-part time jobs (one at the VET college and other one at the industry) if so, an appropriate framework should be designed to facilitate this combination.

Box 5. Development of VET teachers: Northern Ireland

In Northern Ireland, there is much attention to the preparation of teachers and trainers in VET. Following an evaluation of the teacher education programme in Further Education in 2006, DEL revised the teaching qualification in order to meet the needs of the 14-19 agenda and facilitate the transfer of teachers' skills across the post-primary education sector. This qualification is known as the Post Graduate Certificate in Education (Further Education) and is delivered by the University of Ulster. The qualification is underpinned by the Lifelong Learning UK professional standards for teachers. With effect from September 2009, this has become a mandatory qualification for all new-entrant, permanent, full-time and associate lecturers who are not qualified teachers. The induction component must be completed within the first year of teaching and be followed within the next two years by the successful completion of the second year of the postgraduate certificate (DEL, 2009:2-3). In addition, the Department is currently piloting a short programme to allow part-time lecturers to develop the requisite pedagogical skills. The aim is to provide appropriate content delivered in a flexible manner to ensure the requirements to exercise a teaching activity in the Further Education sector do not become barriers for the incorporation of industry trainers hired on a part-time basis.

Source: Álvarez-Galván (2014) and Department for Employment and Learning (2009) Qualifications Required to Teach in Institutions of Further and Higher Education. 11pp. Circular. Draft Version. Northern Ireland.

Any organisation that hosts teachers for a short period of time needs to perceive a benefit in doing so. A major benefit for receiving companies or institutions is that VET graduates will be better prepared for their jobs, because their teachers will be familiar with current workplace requirements and teach these in their course. Teachers can also help to improve and reduce the cost of hiring as they could be able to identify good job candidates among their students and/or tailor their teaching to the needs of specific local employers or industry. So a positive social network effect that can be beneficial for both employers and students when teachers spend time at work placements. As mentioned in the previous paragraph, a carefully designed administrative framework (in particular concerning the wages of teachers during their time spent in industry) may also encourage companies and other institutions to offer such skills upgrading opportunities for VET teachers (Field et al, 2012).

Effective measures to guide students to programmes involving all relevant VET stakeholders as much as possible

Reliable information and advice on different options can help students to decide on whether or not to enrol in VET programmes. With good career guidance, students' enrolment decisions and choices of subjects can reflect their needs, expectations and abilities as well as help them to complete their studies successfully. Some countries have made substantial efforts to provide students with comprehensive information about labour market conditions in order to inform career choices. Students and their families need as much as information as possible about the links between educational options, labour market outcomes and career prospects in a way that can make options truly and easily comparable. In Mexico, career guidance information is made available using portable memory devices and, in some US states, there is detailed and complementary information for students about educational options and labour market conditions (see Box 6). Career guidance services and data should develop within the framework of a coherent career guidance profession, independent from psychological counselling and with close connection with relevant authorities and stakeholders – such as Ministries of Labour or Industry Associations (OECD, 2010).

Box 6. Data, career guidance and VET programmes

The Mexican Ministry for Education has developed “Career guidance in my memory” (*Orientación vocacional en mi memoria*), a USB stick distributed to students and also available through the Internet. It includes tools that help students to identify their strengths and interests, information on institutions offering particular programmes, and data on labour market outcomes. Thanks to data on outcomes collected by the Mexican Labour Market Observatory (*Observatorio Laboral Mexicano*), students can compare different career options, exploring whether graduates work in an occupation related to their training, how much they earn and their average working hours. Although currently it does not cover all occupations and levels, it is an interesting example of a user-friendly, interactive guidance tool, which takes advantage of new technology (SEMS, 2010).

Box 6 Data, career guidance and VET programmes (continued)

The *Occupational Outlook Handbook (OOH)*, published by the **Department of Labor**, compiles information on education and training requirements, growth projections, working conditions, and earnings for the over 250 occupations that comprise nine out of ten jobs in the US economy (www.bls.gov/OCO). The *Career Guide to Industries (CGI)* complements the OOH by providing information on earnings, expected job prospects, working conditions, and education and training requirements for 40 industries that generate two out of every three jobs in the US economy (www.bls.gov/oco/cg/). Career Voyages, a joint project of the Departments of Education and Labor, aims to provide information on in-demand occupations and related education and training requirements. It provides resources and career decision-making guides for students, parents, career changers and career advisers, and gives lists of apprenticeships and tertiary programmes linked to jobs in high growth industries (www.careervoyages.gov/).

Overall, the example of the Danish system on career guidance could be helpful to Kazakhstan. In Denmark there are measures that effectively combine widening access to different academic and vocational options with support for students. In this country, education institutions must, by law, refer students that wish to drop out or change programmes to regional guidance centres (Danish Agency for Higher Education and Educational Support, 2012). Municipalities are legally obliged to make contact with, and offer guidance to, young people that are not working and not enrolled in education at least twice a year up to the age of 19 but some municipalities extend the system beyond this age (Field et al. 2012).

In Denmark, career guidance is widely available for young people, through a range of services, many of them within the education system. Denmark is unusual among OECD countries in having specific legislation on educational and vocational guidance¹ (OECD, 2002). The Ministry of Science, Innovation and Higher Education is responsible for the seven regional guidance centres and other services including a national guidance portal and a call centre (Field et al. 2012).

In Denmark, career guidance aims primarily to assist the transition of young people between secondary and postsecondary education, offering information both about available programmes and the careers associated with them. In co-operation with the different stakeholders – in particular social partners and local municipalities, different workshops, seminars, career fairs, individual and group guidance sessions are also developed and organised; also, the centres provide their services in different settings

(*e.g.* schools, public libraries) (Danish Agency for Higher Education and Educational Support, 2012).

Finally, the quality of guidance in Denmark is underpinned by linkages between guidance services and all relevant stakeholders, making it relevant for both education institutions and the labour market. A decentralised and flexible structure in Denmark produces a diversity of practice and exchange of experiences, knowledge and best practice, with strong local ownership by the several stakeholders involved – including youth education and higher education institutions, and the social partners in industry and commerce (Danish Agency for Higher Education and Educational Support, 2012).

Note

- ¹ An Act on Vocational Guidance was passed in the mid-1950s. It was replaced in 1981 by an Act on Educational and Vocational Guidance, which was revised in 1996. From 2004 a new Act on Educational and Vocational Guidance was implemented.

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Chapter 3

Improve co-ordination while strengthen capacities for VET schools and employers

This chapter sets out recommendations to improve VET co-ordination in Kazakhstan. Effective VET systems require adequate co-ordination to ensure the participation of multiple stakeholders of varied profiles. A clear allocation of responsibilities would make co-ordination easier and strengthen employers' participation through national, regional and sectorial councils in Kazakhstan. VET colleges should be encouraged to take advantage of their autonomy to offer flexibility in more meaningful ways to facilitate co-operation with employers and improve responsiveness to labour market needs.

Challenge

The VET system in Kazakhstan is highly regulated and vertically integrated, with decision making concentrated at the top. These characteristics do not seem to be well-suited to facilitate effective co-ordination and participation among authorities, colleges and employers.

VET decision making do not seem to grant substantial responsibilities to employers

In Kazakhstan, a National Council for training of technical and vocational education personnel (National VET Council) was established by the government in 2011¹. This National Council is designed to coordinate work and to ensure that training is guided by labour market needs; that cross-sectorial co-operation takes place and that employers' involvement is encouraged at all levels of the VET system (MESRK 2013:59). But it is not clear to what extent this Council has real decision making powers. The Council is expected to develop proposals to: i) facilitate the implementation of training policies; ii) identify priority areas for VET development; iii) make recommendations on co-ordination for staffing problems; iv) create a single national qualifications system; v) create a favourable legal and investment environment to ensure training of skilled personnel; vi) ensure employer participation in training; vii) plan and forecast labour market needs for skilled workers; viii) modernise the structure and content of the VET provision; ix) enhance the quality of personnel training; x) improve the management and financing of VET; xi) facilitate participation of sectorial government agencies, professional associations and employers in training and in the development of professional standards as well as the assessment of workforce qualifications; and xii) arrange industry internships and job placements for VET students (MESRK, 2013:60).

There is no concrete distribution of places in this Council so the composition of this body changes each year. In the 2013 version, the government had 32 whereas the industry, represented by employer associations, enterprises and trade unions, had only At the Working Group that should prepare Council meetings, 15 of its 36 members were government officials at Vice minister or director level; 18 members represented employers; one represented employees and trade unions and two represented independent experts. The chairman of the Working Group was the Vice-minister of Education and Science of the Republic of Kazakhstan, who also held the post as secretary of the National Council. The director of the VET department of the Ministry of Education and Science of the

Republic of Kazakhstan was both deputy chairman and secretary of the Council Working Group (GIZ, 2013:21).

In the 14 sectorial councils created, the relevant Vice-minister chairs the meetings and a director from the relevant line minister is in charge of the secretariat. In the case of the 16 regional councils (14 regions plus the cities of Almaty and Astana), the council is typically led by the head of the AKIMAT (regional body of executive authority in Kazakhstan) and secretarial assistance is provided by the head of the AKIMAT VET department (GIZ, 2013:22).

A comprehensive VET governance apparatus that seems to inhibit a more active exercise of colleges' autonomy capacities

In Kazakhstan, decision making tends to be top-down. The Ministry of Education and Science of the Republic of Kazakhstan is the central executive body and within it the Department of Technical and Professional Education. Public VET institutions are licensed, supervised and accountable to the regional departments of control in the sphere of education under the MESRK, while regional education management bodies set the budget and enrolment targets (OECD, 2013:224). At the same time, college programmes and curricula are required to conform to the State Compulsory Standards for technical and vocational education and educational programmes devised by the Ministry of Education and Science (MES, 2013:50). Since 2012, all VET institutions became colleges and state-funded institutions have been re-constituted as state-owned municipal enterprises that are expected to generate at least some portion of their own income (OECD, 2013:224).

VET institutions in Kazakhstan are managed through the principles of undivided authority and joint management. This means that the principal of each school is personally responsible for the overall performance of the institution including the quality of training; adequate financial, accounting and contractual discipline; and the preservation of the property and other assets owned by the institution (MES 2013:51). The legislation also establishes the presence of four deputy directors²: for academic affairs; teaching and production affairs; educational affairs; and economic affairs (MESRK, 2013:51). In addition, if there are more than 561 students in a college then one more staff position is added in the form of a Deputy Director for Learning Support³.

Joint management is normally exercised by teacher and student councils (MESRK, 2013:51). The teacher council, that exists in all schools regardless of their ownership type or department affiliation, this is a collective board that includes all teaching staff and chaired by the school director that makes

decisions on the choice of educational contents, methods, and ways of implementation (MESRK, 2013:51). The student council is elected for one year and it is expected to participate in the planning and implementation of educational activities within the institution (MESRK, 2013:52).

Recommendation

Strengthen the role of the National VET Council in order to simplify and consolidate the governance of the system. Enhance the participation of social partners and encourage colleges to make effective use of their autonomy.

Supporting arguments

This recommendation is supported by two arguments. First, the current governance framework for VET overlaps with some crucial attributes that the National VET Council is supposed or expected to have. Second, colleges' autonomy and flexibility are formally attached to a strict vertical regulatory process that, in practice, inhibits the exercise of some critical capacities also stipulated by law.

Co-ordination is stronger with a clear division of responsibilities

Across OECD countries, managing multiple vocational institutions and programmes to deliver strategic coherence and co-ordination without damaging diversity and innovation is a major challenge. Institutional autonomy, while promoting local innovation, can add to the challenge of coherence and coordination. In addition, there are particular challenges for vocational programmes because of the specific need to engage social partners with their different agendas.

A clearer division of tasks between Councils and the government should help to improve co-ordination and policy development and implementation. The responsibilities of the National VET Council in Kazakhstan overlap with those of the government while some critical responsibilities for employers are absent. For example, the responsibilities of the National Council include the financing of VET, but it is not clear how the Council can pursue this topic which is mainly on government terrain. On the other hand, despite the exhaustive list of issues where the Council is expected to make recommendations, the development of programmes and curricula does not appear, or at least not explicitly.

OECD countries often maintain co-ordination bodies designed to provide an overall steer for the VET system, just as Kazakhstan is trying to

do with its National VET Council. Box 7 provides some examples of institutional arrangements. The frameworks in Denmark and Switzerland build on strong industrial bodies (employer organisations and trade unions) and a long tradition of engagement in VET. The industry-led UKCES in the United Kingdom involves high profile representatives of large and small employers as well as other stakeholders.

Box 7. National strategic bodies steering VET policy

In Denmark the Council of Academy Profession Programmes and Professional Bachelor Programmes (i.e. short and medium cycle postsecondary VET) was set up in 2008. The board has up to 21 members, including those appointed by the Minister of Science, Innovation and Higher Education after nomination by various employer organisations (8 members), trade unions (2), the organisation of Danish regions (1), organisation of local governments (2), student organisations (2), University Colleges (1) and Academies of Professional Higher Education (1). The Council meets six times a year and advises the Minister about the development of new programmes, the mix of provision, quality assurance and improvement. It also provides a yearly report, which reviews existing programmes and describes new initiatives.

In Switzerland, the involvement of professional organisations in VET policy making is required by law. The term “professional organisations” in Switzerland refers to trade associations, employer associations and trade unions, and includes both companies and business people. Professional organisations have the leading role in the content and examination process of both secondary and postsecondary VET programmes (in Switzerland postsecondary VET is referred to as “professional education and training”, PET). Professional organisations in postsecondary VET, as in secondary level VET, draft core curricula for PET college degree programmes, which are then approved by the Swiss authorities (Confederation). National examinations leading to a federal diploma are also led by professional organisations. They ensure those federal PET diplomas are relevant to the needs of the profession and the labour market. Professional organisations draft examination rules, which cover admission requirements, occupational profiles, the knowledge and skills to be acquired, qualification procedures and the legally protected title. They also conduct examinations. The role of Swiss authorities (at Confederation level) includes approving examination rules, supervising examinations and issuing federal diplomas.

Box 7. National strategic bodies steering VET policy (continued)

In the UK, the UK Commission for Employment and Skills (UKCES) was launched in April 2008 with the aim of increasing the employer voice in the United Kingdom's VET system and promoting investment in skills to drive enterprise, jobs and growth. It is led by commissioners from large and small employers, trade unions and the voluntary sector. It also includes representatives of further and higher education institutions and from the Devolved Administrations. Its strategic objectives are: *i*) to provide world-class labour market intelligence which helps businesses and people make the best choices for them; *ii*) to work with sectors and business leaders to develop and deliver the best solutions to generate greater employer investment in skills; *iii*) to maximise the impact of changed employment and skills policies and employer behaviour to help drive jobs, growth and an internationally competitive skills base. The UKCES works with government departments and agencies, as well as with researchers across the UK to develop an evidence base and pool expertise. The UKCES also funds and manages the Sector Skills Councils and oversees their relicensing process. As a UK-wide body, it helps ensure a strategic approach to skills development that covers all four nations (with devolved administrations for education and training policy) of the UK.

A recent shift in the approach to employer engagement encourages employers to own their skills agenda and develop their own initiatives, rather than relying on a policy agenda set by government with incentives for employers to join in. In 2011 the Prime Minister announced a fund of up to GBP 250 million to test out approaches that empower employers to take control of skills development. The UKCES is working closely with government to develop this approach.

Source : Danish Agency for Higher Education and Educational Support (2012), Skills beyond School: OECD Review of Post-Secondary Vocational Education and Training – National Background Report for Denmark, <http://en.fivu.dk/publications/2012/oecd-review-skills-beyond-school/oecdreview-skills-beyond-school-denmark.pdf>; Fazekas, M. and S. Field (2013), A Skills beyond School Review of Switzerland, OECD Reviews of Vocational Education and Training, OECD Publishing. doi: <http://dx.doi.org/10.1787/9789264062665-en>; UK Commission for Employment and Skills (UKCES) (2013), OECD Review: Skills beyond School. Background Report for England. Briefing Paper February 2 www.ukces.org.uk/publications/oecd-skills-beyond-school-england.

Enhance the participation of social partners

Social partners should have a more prominent role in the National VET Council of Kazakhstan. At the moment, the prevailing presence of public sector representatives in this National Council (but also in the regional and sectorial versions) gives rise to two problems: 1) duplication of efforts already undertaken by the Ministry of Education and Science and the

Ministry of Labour and Social Protection; and 2) inhibits social partners from a more active and responsible participation in the system. Therefore, a clear division of responsibilities is needed between the National VET Council in Kazakhstan and what is done by the Ministries of Education and Science and Labour and Social Protection in the country.

A more balanced membership is required for the National VET Council to effectively achieve its goals in Kazakhstan. For example, the German Agency for International Co-operation suggests that the number of Council members should be reduced (30 maximum) and that a truly tri-partite structure should be encouraged, that is, including government, employers and employees (GIZ, 2013:22). At the same time, there must be more clarity and transparency in the way members of the Council are elected or invited. Most of the current members of the National Council seem to be either top level government officials or representatives of large companies.

Finally, the National VET Council and the regional and sectorial versions must have real and effective decision-making capacities. At the moment, there is a pilot version for this kind of body, the 'Interregional Centre for Training, Retraining and Enhancing Qualifications of Personnel', based in Atyrau and established in collaboration with industry partners. Examples from other countries can be helpful. For example, in Denmark, both the employers' and the employees' sides are very engaged in the planning, design and the steering of the system. Denmark has a deeply rooted tradition of consensus-building in politics and industrial relations (CEDEFOP, 1999), linked to the so-called "Danish model", which seeks to reduce the level of labour market conflict without unnecessary government interference. It depends on the representation of both labour and employers by centralised bodies that have the right to enter into binding agreements on behalf of their member organisations⁴ (Juil and Jørgensen, 2011). At secondary level, the State sets out the legal framework for the VET system and controls the funding for these activities as well as the quality of the activities. It also encourages the supply of training placements by means of financial incentives (CEDEFOP, 1999; Juil and Jørgensen, 2011). At postsecondary level, the social partners play an active role in defining new courses and programmes and in advising on existing programmes. The involvement of social partners and other stakeholders at the national level is reflected in a special Council that was set up by the Minister for Education and Science in April 2008 (see Box 7). At the institution level, the social partners may be represented in the educational advisory committees which the institutions set up within the various disciplines of their programmes. The committees advise on the quality and relevance of existing and future programmes of study. The social partners may also sit on the board of the

university colleges and academies of professional education (Danish Agency for Higher Education and Educational Support, 2012).

Encourage schools to make use of their autonomy in order to build stronger linkages with employers and tailor their programmes and curricula to labour market needs

Since the early 1980s, in an effort to raise performance, there has been a global tendency to provide schools with greater autonomy (Whitty 1997; Carnoy 2000; Braslavsky, 2001). In general, more decision-making responsibility and accountability have been devolved to school principals and, in some cases, management responsibilities have devolved to teachers or department heads (OECD 2010:68). Schools that are given responsibility for resource allocation are not necessarily entitled to make curricular decisions. Trade-offs are always present. For example, the logistics and technical efforts related to the undertaking of national evaluation procedures tend to be bigger and more demanding when autonomy for institutions increases (Bottani and Favre, 2001).

VET colleges in Kazakhstan are expected to exercise their autonomy within a rigid framework of regulation by national and regional authorities. On paper, colleges in Kazakhstan are expected to make their own hiring procedures and decisions but are not able to decide on teachers' wages. Programmes and students places are determined by regional and central authorities. Formally, Kazakhstan has a mechanism⁵ to identify and address the need for workforce provision that seems to require little involvement from VET colleges. First, local executive bodies collect information from companies to create regional employment requirements maps that must be transferred to the authorities of the corresponding regions. Once the information is verified and completed, these employment requirements maps are handed over to the Ministry of Labour and Social Protection which creates an employment requirements map that is transmitted to the Ministry of Education and Science in order to draft the state commissioned education order for training specialists in different areas and levels of training (MESRK, 2013:54). Provision should be aligned with the aims of major national projects⁶ but there is no formal requirement to involve VET colleges more effectively in this process.

It is not clear to what extent colleges are able to co-ordinate and consult their academic plans and programmes with employers. Academic plans and programmes for VET colleges in Kazakhstan must be approved by relevant State Compulsory Education Standards depending on the institution profile (MESRK, 2013:52). Once approved, they are implemented through a working academic plan elaborated by the VET institution on the basis of a

model that stipulates the list of academic disciplines, their sequence, intensity, organisation, forms of knowledge and skills assessment (in accordance with the rules stipulated by the Assessment of Professional Training Level), and approved by the director of the corresponding VET institution. The director of this VET institution is supposed to make its approval based on the teacher council decision and in coordination with employers and representatives of the department of education in the corresponding region (MESRK, 2013:52). However, the OECD team saw no significant evidence, in the colleges visited, that employers are systematically consulted when academic plans and programmes are developed.

We would recommend that a certain proportion of VET programmes and curricula should be adapted to tackle specific local labour market needs. For example, 80% of the curricula could be national based while the remaining 20% could be tailored to the needs of local employers. Local employer engagement can contribute to the content of the study programmes, for example by providing case studies, as visiting lecturers or participating in joint vocational-oriented developmental work. VET authorities in Kazakhstan seem to be very conscious of the importance of having strong links at individual level with companies in order to offer internships for students but not necessarily in the tailoring of programmes and curricula to local employers' needs.

Box 8. Adapting VET programmes to labour market needs: The German Experience

Fachschule curricula in Germany are developed by each *Land* within the framework agreement established by the Standing Conference of Ministers of Education and Cultural Affairs of the Länder (*Kultusministerkonferenz*) allowing 20% of the syllabus to reflect local needs.

In Germany, the qualifications offered are largely determined by labour market associations, most importantly chambers, with employer and professional organisations mainly defining the content of advanced vocational examinations (Hippach-Schneider et al. 2012).

Source: Fazekas and Field (2013).

The visits of the OECD team to different colleges in Kazakhstan also reveal that colleges need support to identify what is the optimal use of their autonomy. For example, the recent reform that transformed all VET institutions into colleges was meant, among other things, to give these colleges the legal powers to produce their own income through different

means, for example, through small scale commercial activities. But it seems that not all institutions were aware of this. While some colleges have successfully embarked on small scale subcontracting arrangements with industry partners, with the aim of providing students with some on-the-job and entrepreneurial experiences, other colleges have not been able to establish strong links with employers or just complain that they were not allowed to do so. In any event, it is clear from the experience of the OECD team visiting Kazakhstan that there is a substantial gap between the autonomy established by law and that which colleges are able or willing to exercise in practice.

Notes

- ¹ Government Regulation No. 298, 30 March 2011.
- ² Government Regulation No. 77, 30 January 2008.
- ³ Government Regulation No. 77, 30 January 2008.
- ⁴ Another important condition behind the success of the Danish model is the high organisational membership rates among employers and employees.
- ⁵ Order of the Minister of Labour and Social Protection of the Republic of Kazakhstan No. 299, 1 July 2013.
- ⁶ Such as the “State Programme for Accelerated Industrial-Innovative Development”, the “Road Map for Business 2020”, the “Roadmap for Employment 2020” as well as town or regional-based development programmes (MESRK, 2013:53)

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Chapter 4

Strengthen the identity and recognition of postsecondary VET

This chapter sets out policy recommendations to strengthen the identity and recognition of postsecondary VET in Kazakhstan. Around the world, well-established post-secondary VET can help to provide industries with more advanced technical skills, especially in the context of ambitious up-skilling and competitiveness strategies. Strengthened postsecondary VET in Kazakhstan could make vocational education more attractive for students as it would offer clearer opportunities for up-skilling and further education.

Challenge

In Kazakhstan, the identity and recognition of postsecondary VET need to be reinforced in order to respond more effectively to labour market needs. Stronger postsecondary VET should help to provide industries with more advanced technical skills, especially due to the ambitious upgrading and competitiveness programmes that have been set out as fundamental pillars for a national economic development strategy that cares about social cohesion as well. At the same time, a strong and well-defined postsecondary VET segment would make vocational education more attractive for students as it would offer clearer opportunities for up-skilling and further education.

Despite its size and importance the identity and position of postsecondary VET remain relatively unclear in both the educational system and the policy agenda

Postsecondary VET in Kazakhstan is substantial by international standards. Understood as those programmes offered after graduation at 11th grade, it represents a substantial proportion of VET in the country. In 2012, postsecondary VET students represented 41% of all enrolled VET students; 49% of the new admissions in the whole VET system; and 48% of the graduates in VET. This contribution is one of the largest observable across many countries (Table 4).

Despite its size, the identity and position of postsecondary VET in Kazakhstan remain relatively blurred in the educational system. This can be explained by: i) the upper secondary level has more visibility because is the entry point for VET education; ii) both upper and postsecondary levels are usually taught in the same institutions and there are not, in practice, clear dividing lines in functional and administrative terms between the two; iii) there is an undergoing transition to a 12-year secondary education system, that is planned to be finalised in 2015, and that might generate confusion about the boundaries between upper secondary and postsecondary VET.

Table 4. Main Indicators of VET in Kazakhstan (2013)

	Total (individuals)	Type of college		Distribution		
		Public	Private	Total	Public	Private
Student population	587 310	338 131	249 179	100%	58%	42%
Upper secondary (after 9 th grade).	349 402	216 305	133 097	59%	62%	38%
Postsecondary (after 11 th grade).	237 908	121 826	116 082	41%	51%	49%
Admissions	203 974	112 717	91 257	100%	55%	45%
Upper secondary.	104 934	63 729	41 205	51%	61%	39%
Postsecondary.	99 040	48 988	50 052	49%	49%	51%
Graduates	184 520	109 880	74 640	100%	60%	40%
Upper secondary.	95 326	62 115	33 211	52%	65%	35%
Postsecondary.	89 194	47 765	41 429	48%	54%	46%

Source: Based on MES (2013): Table Main in Indicators of VET as 01/10/2012.

Despite the relevant role assigned to vocational education as a whole, the specific role of postsecondary VET remains unclear in the policy agenda. The State Programme for the Development of Education, which is the main reference for education policy development in the country, considers VET as a whole one of the central priorities of the country¹. The current version of the Programme, for 2011-2020, identifies a need to meet labour market demand, modernise the system, and meet the needs for an innovative industrial environment as key priorities. Such priorities are supposed to be aligned with other major reference policy development plans such as the State Programme for Accelerated Industrial-Innovative Development, the Road Map for Business 2020 and the Road Map for Employment 2020 (MESRK, 2013) but there is no distinct strategy for postsecondary (or upper-secondary) VET. However, the governmental documents mentioned above do not identify how exactly postsecondary VET should be tackling these challenges in terms of: i) updating VET with regard to the needs of an innovative development of the economy; ii) developing training infrastructure; iii) enhancing the prestige of VET education and its teachers; iv) elaborating new mechanisms to finance

education to improve accessibility; v) ensuring high-quality teaching staff for the system; and vi) improving the management of the system. Also, the Action Plan 2014-2016 regarding the implementation of the strategy for education and science development in the country (MESRK, 2014) illustrates this point well. Although the document is detailed and ambitious in terms of the general development of VET, it does not specify the contribution or targets expected for the postsecondary segment in particular.

It remains unclear how Kasipkor will contribute to reinforce the specific identity and recognition of postsecondary VET

The Kasipkor holding has been set up with the goal of leading the development of “high-quality, high-level and high-prestige technical education meeting international standards”, and “to pioneer new approaches to VET provision which can in due course be extended to all colleges, including stronger relationships with business”². According to the 10-year Development Strategy of the Holding company “Kasipkor”, its main objectives are: to modernise the structure and content of vocational education and training in Kazakhstan, to develop new educational programmes, to attract strategic international partners, to prepare teachers for the VET system, and to build world-class colleges in the cities of Astana and Almaty (OECD, 2013:229).

Students and employers might benefit from a clearer division that also corresponds to different career prospects, workforce skills and up-skilling possibilities of what is on offer in Kasipkor. It is clear that Kasipkor embraces many of the good practices that the OECD has identified in other countries: strong partnership with employers; a significant proportion of workplace learning; and good support for teachers and trainers, among other elements. But it remains unclear how postsecondary VET would be incorporated into this initiative. Because Kazakhstan tends to offer both upper and postsecondary VET in the same institution this differentiation might be perceived as not crucial but such a distinction might help to signal the right labour market value of any VET qualification.

Recommendation

Strengthen the identity and recognition of postsecondary VET through: i) meeting labour market needs beyond upper secondary level and clarifying its contribution to economic development and social cohesion; ii) giving a clearer nomenclature to the sector; and iii) locating postsecondary VET in institutions with a clear central mission to deliver such programmes while shorter programmes can be allocated in several institutions.

Supporting arguments

This recommendation is supported by three arguments. First, postsecondary VET in Kazakhstan is already large in size for international standards but it does not have enough recognition and a strong identity. Second, a stronger and more prestigious higher level vocational option should help to attract more students to pursue vocational education. Third, international experience suggests that it is desirable to allocate postsecondary VET to institutions with a clear mission to deliver such programmes.

Give postsecondary VET in Kazakhstan a recognition that parallels its size and contribution to skill formation

In the United States around 12% of the labour force have a postsecondary ‘certificate’ (often a one year programme) as their highest qualification – and certificate graduation rates are burgeoning – tripling in recent years. A further 10% have an associate degree (2-year degree), many of which will be vocational (Kuczera and Field, 2013). Similarly in Canada, around one quarter of the cohort gains a (typically professional) associate degree as their highest qualification (Department of Human Resources and Skills Development Canada, 2012). In Korea, roughly one third of the youth cohort enters junior college or polytechnic programmes, which are dominated by two year vocational programmes (Kis and Park, 2012).

Box 9. Diversity in postsecondary VET

Many postsecondary VET institutions were created in reaction to the doubts that arose concerning the capacity of traditional universities to handle rapid growth, the demands of individuals and a gradually more knowledge-based economy. While these institutions are enormously varied, they are commonly employer-oriented and responsive to local labour market needs. Therefore, postsecondary VET institutions are deeply embedded in the various national labour market and industrial relations systems (Grubb, 2003; OECD, 2008; Bosch and Charest, 2010).

The new types of institution were sometimes also part of regional development strategies, as they were seen as more responsive to the needs of local communities and as more accommodating of the growing diversity of individual qualifications, and career plans of students. They have some significant benefits compared to university – greater flexibility, greater access and equity, and more overtly occupational and economic goals (Grubb, 2003).

Sometimes, even when the institutions have a relatively simple identity, the programmes on offer are diverse. For example, community colleges in the United States offer everything from a two-year associate degree to short courses of a few weeks in demand among local employers. Often, the expansion of postsecondary VET has involved diversification of institutions and institutional missions. In Japan for example, the tertiary sector now includes in addition to universities themselves: Junior colleges typically offering two-year sub-degree qualifications within a baccalaureate four-year bachelor's degree framework; Colleges of Technology, or Kosen, offering high-level vocational qualifications through teaching and related research; Professional training colleges offering practical vocational and specialised technical education aiming to foster abilities required for vocational or daily life, or provide general education; Graduate schools conducting academic research, in particular basic research, and training researchers and professionals with advanced skills; and Professional graduate schools oriented towards high-level graduate entry to key professions – for example, law, business studies, etc. The cultivation of diversity is now a stated policy aim (OECD, 2008).

Source: Field et al. (2012).

Growing provision on the supply side seems to correspond to growing demand for these kinds of midlevel professional qualifications. A forecast of employment change in the 27 EU countries between 2010 and 2020 implied that nearly two thirds of overall employment growth would be concentrated in the “Technicians and associate professionals” category - the category (one of nine) most closely linked to postsecondary VET. The same category

currently represents only 15% of EU employment (CEDEFOP, 2012). Similarly in the United States, a recent forecasting exercise (Carnevale et al., 2010) predicts that in the decade to 2018, nearly two thirds of job vacancies will require more than high school education, but only half of these, or one third of all vacancies will require four-year degrees or higher qualifications. So nearly one third of the vacancies will require some postsecondary qualification but less than a four-year degree – in most cases a postsecondary vocational qualification (such as an associate degree, certificate, or certification).

In 2011, around two thirds of 9th graders in Kazakhstan continued to general upper secondary education while one third enrolled in vocational education (IAC, 2012). Almost half of the VET enrolments in Kazakhstan occur at postsecondary level and this is promising given the ambitious development plans undertaken by the country. However, the scale and importance of postsecondary VET in Kazakhstan is not specifically recognised by development strategies. In particular, it remains unclear how postsecondary VET is dealing with some challenges such as: the labour market relevance of its programmes; employers' engagement; up-skilling of teachers and trainers; and providing adequate work-based learning.

Strengthen the identity of the sector, especially for short cycle programmes

By 'postsecondary vocational education and training' this review refers to the programmes and qualifications that aim to prepare students for particular occupations or careers, that are beyond upper secondary level, and that would normally require at least 6 months full-time or equivalent preparation, up to and including bachelors programmes. Postsecondary VET usually includes two levels of programme:

- Short cycle postsecondary programmes. These take place in diverse institutions and with diverse nomenclature for the programmes and qualifications. They include at the top end of the spectrum, two-year associate and foundation degrees in the US, UK, Korea, Netherlands and Flanders, but also certificates in the United States, professional academy programmes in Denmark, two year Fachschulen programmes in Germany, professional college qualifications in Switzerland, the final part of five year vocational college programmes in Austria, post-high school in Romania, higher level vocational programmes in Spain, higher national diplomas in Scotland in particular, but also in the rest of the UK. In Kazakhstan, this might refer to short-term courses, delivered either by VET colleges or employers, lasting up to 6 months, or to those courses, lasting up to 1-year, and delivered only by VET colleges to

those students graduated after 11th grade. In Kazakhstan, these short courses are conceived to provide accelerated retraining or up-skilling to students. However, there might be a possibility for these programmes to be redefined as upper secondary after the reform to expand secondary education up to 12th grade is completed.

- Bachelor degrees, sometimes described as such, and sometimes simply the subset of bachelor programmes that are designed to prepare for a profession. Sometimes these degrees are pursued in a dedicated tier of institutions – the Fachhochschulen, University Colleges in Scandinavia, HBOs in the Netherlands, and polytechnics in Finland; in other cases they are undertaken in universities – and often there is no strict dividing line between professional and academic bachelor degrees. In Kazakhstan, these courses refer to those programmes offered by VET colleges after graduating from 11th grade and lasting no less than 2 years.

Globally the large and growing sector of short cycle postsecondary VET is characterised by an extraordinary diversity of names, for qualifications, programmes and provider institutions, and lacks any appropriate statistical measures which are valid internationally.

Kazakhstan can use current educational reform to use a nomenclature that might reinforce the identity of postsecondary VET. Few countries have terminology to describe, not just particular qualifications, but the whole domain of short cycle postsecondary VET. One exception is Switzerland where 'Professional education and training' has been established to describe both the programmes in professional colleges, and the set of examinations which correspond to Swiss federal diplomas and advanced diplomas. The expression has therefore been road-tested in Switzerland with translations into French, German, and Italian already. This might be a strong foundation for the international nomenclature.

Box 10. The Merger of Postsecondary VET Institutions in Northern Ireland

In Northern Ireland the reorganisation of Further Education colleges as six regional bodies merged smaller colleges, taking advantage of synergies between different institutions, and economies of scale. Such mergers are always difficult to handle but typically fruitful, and the successful realization of these mergers is a real strength. The colleges have missions to serve their regional communities, but at the same time, they enjoy a significant degree of autonomy: employing their own staff, owning their own property and having the right to charge fees where necessary (DEL, 2013:46). The Department for Employment and Learning does, however, retain the power to do all that is necessary or expedient for the purposes of the exercise of its duty under Article 3 of the Education Reform (Northern Ireland) Order 1989 in so far as it relates to further education. In particular, the Department may make grants, loans and other payments for the purposes of, or in connection with, the provision of further education and also establish, amalgamate, recognise or provide for the discontinuance an institution of further education.

Source: Álvarez-Galván (2014) and Department for Employment and Learning (2013), Skills beyond School: OECD Review of Post-Secondary Vocational Education and Training. Background Report for Northern Ireland. Northern Ireland Executive.

Locate postsecondary VET in institutions with a clear mission to deliver such programmes while shorter programmes can be allocated in several institutions

Kazakhstan might benefit from an examination of the experience of other countries in establishing institutions to deliver vocational education and training. The growth and success of institutions dedicated to more vocational and technical bachelor programmes is very striking – in countries like Finland and Austria, much of the overall growth in tertiary participation has been associated with these institutions and their programmes. In Denmark, the consolidation of single profession training institutions (for example in nursing and teaching) into larger institutions has been accomplished successfully. To some extent the success of these institutions and their programmes reflects the economies of scale and synergies arising from the amalgamation of single-profession training institutions, but also, relative to universities, to the possession of distinctive missions, focused on professional education, which are clearly different from universities.

Around the world, it is notable that vocational education and training tends to flourish where it is associated with institutions which champion its delivery as a central part of their mission, like Kasipkor intends to do. In this

respect, Kasipkor embraces the advantages of those institutions exclusively dedicated to the delivery of VET; but programme levels (either upper or postsecondary) also need to be clearly visible to signal the value of specific qualifications in the labour market and to facilitate permeability across the educational system.

Shorter postsecondary VET programmes in Kazakhstan can be pursued in different types of institutions, as in many other countries. The shorter professional education and training programmes can be found located in upper secondary vocational institutions, (as in Spain and Romania and German Fachschulen) in universities or other institutions also providing bachelors level qualifications, (associate degrees in HBOs in the Netherlands), in free standing institutions (community colleges in the US, professional colleges in Switzerland, polytechnics and junior colleges in Korea), or have a variable institutional location as in the Swedish higher vocational education system.

Box 11. Shorter programmes as stepping stones towards higher tertiary qualifications in OECD countries

In France, it is possible for *institut universitaire de technologie* (IUT) students after the first two years of study to be admitted by the *grandes écoles*, whose masters-level graduates may in turn, pursue doctorates at universities (Dunkel and Le Mouillour, 2009).

In Norway, where credit recognition between institutions has been mandatory since 1981, between 10 and 20% of students change institutions during the course of their studies, mostly from universities to university colleges during the first three years, while the flows reverse afterwards (OECD, 2008).

In the United Kingdom, legislation allows two-year foundation degree students to progress to an honours degree (which otherwise would be a three year full-time programme) through one additional year full-time, or two years part-time. Access or bridging courses are organised to prepare the transition from short-cycle to degree programmes but they are neither compulsory nor always available or needed. Professional experience is taken into account and facilitates the transition. In 2007-2008, 59% of students who studied full-time for their foundation degree went on to study for an honours degree in 2008-2009. Fewer part-time qualifiers progressed to an honours degree (42%). Most students who continued their studies did so at the same institution at which they were registered for their foundation degree.

Source: EURASHE (2011), “Short cycle Higher Education in Europe Level 5: the missing link”; Dunkel and Le Mouillour (2009); OECD (2008), Tertiary Education for the Knowledge Society: Volume 1 and Volume 2, OECD Publishing. doi: <http://dx.doi.org/10.1787/9789264046535-en>

Notes

- ¹ In January 2014 the Minister of Education and Science of the Republic of Kazakhstan presented a new Strategy for Education and Science Development for 2014-2016 where priority areas of improvement were identified in all educational levels. In the sphere of technical and vocational education the following tasks are highlighted: i) education and business partnerships should better integrated; ii) employers' engagement in various aspects of VET (governance, financing, content development) should be strengthened and increased; iii) personnel training should be harmonized with the State Program priorities of the Industrial-Innovative Development Programme of Kazakhstan for 2010-2014. (Currently State Programme for Industrial and Innovation Development of the Republic of Kazakhstan for 2015-2019).
- ² Official information provided to the OECD team by Kasipkor.

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Chapter 5

Improve assessment and certification processes in VET

This chapter sets out policy recommendations to strengthen VET assessment and certification in Kazakhstan. At the moment, impressive efforts are being made in Kazakhstan to create an assessment and certification system that is independent from colleges; but this system is still run by the government. Kazakhstan should be encouraged to go one step further and give employers a more direct role in the assessment and certification process while enhancing the instruments, such as examinations, to certify vocational qualifications and facilitate prior learning recognition.

Challenge

Impressive efforts are being made in Kazakhstan to build up a certification system that is independent from colleges and where employers play a relevant role. But the three already independent assessment centres closely linked to employers are still in a pilot phase. The current assessment procedure, in place since 2008, has been enlarging its coverage of specialties, students and institutions year after year and the proportion of graduates that has passed the exam has increased until reaching 80% in 2012. But this assessment process is still run mainly by the government. Kazakhstan should be encouraged to go one step further and give employers a more central role in the certification process extending to the whole system the approach of the three independent centres already working. At the same time, the use of professional examinations might be considered as a means of strengthening the qualification system and facilitate the recognition of prior learning as an additional route for certification.

Despite recent efforts employers remain relatively absent from the certification process

The current examination and certification processes in VET do not involve employers fully in Kazakhstan. The current system involves two steps: first, the vocational college establishes both practical and theoretical examination and issues a diploma to those students who pass the test; second, the Republican Scientific Methodological Centre for the Development of VET and Qualifications Assessment undertakes its own assessment also involving practical and theoretical examination and issues a certificate to students who pass the procedures (GIZ, 2013; MESRK, 2013). These two procedures are stipulated by the Law of the Republic of Kazakhstan on Education (article 28, paragraph 10) (MESRK, 2013). But this system has been criticized as not being independent because it allows the provider to assess the quality of its own service¹ (GIZ, 2013). In addition, it is not clear if individuals not enrolled in a VET college can apply for certification; if only VET graduates can do so then Kazakhstan VET might face also the challenge of recognition of prior learning.

The Assessment of the Professional Training Level (MESRK, 2013) is being extended to more specialties and colleges. For the period 2008-2009 the assessment was held in 70 VET specialties at 741 institutions nationwide while for the period 2011-2012 the assessment exercise was undertaken in 737 VET specialties at 140 institutions in Kazakhstan. During the four years in which the assessment has been undertaken the pass rate has increased from 65% to 80% (MESRK, 2013).

Employers take part in this assessment process but, in practice they seem to be relatively absent. Regulations in Kazakhstan indicate that the assessment of vocational qualifications is undertaken by a qualification committee that is formed by the heads of educational institutions and employers that provide internship placements. Although this exercise has been able to improve the quality of training in VET according to the Ministry of Education and Science of the Republic of Kazakhstan (as shown by the increase in the pass rates over the last four years), the practice seems to be afflicted by limited employer engagement.

There are only three independent certification centres operating in close cooperation with employers: tourism (with the Tourist Association), oil and gas (with the Kazenergy holding); and mining and metallurgy (where a Centre for HR-Projects has been created with the purpose of administer the assessment). But these centres are still operating as pilot exercises (MESRK, 2013). To tackle this challenge, the Kasipkor Holding is planning to create independent certification centres for construction, housing and community facilities, machinery, information and communication technologies industries based on the corporate fund “KACEBI”. Also it is planned to create independent certification centres for the transport and logistics industries.

Finally, in 2014 it is planned to increase the number of accredited students and to expand the scope of specialties under pilot certification in several regions of Kazakhstan.

The importance of assessment and certification to verify and to validate people’s skills

Certification processes are intended to help VET to secure its labour market relevance. Certification should effectively follow transparent and coherent mechanisms to generate information that, in turn, should facilitate decision-making and resource allocation for different stakeholders. This means that certification systems should guarantee that the information provided is reliable and that it has been collected with impartiality and fairness. These are essential characteristics when dealing with the verification/validation of formal qualifications and/or testing competences through examinations.

From a formal perspective, the International Standards Organisation (ISO) indicates that certification should be understood as means of providing assurance that the certified individual meets the requirements of the certification scheme (ISO/IEC, 2012:2). So certification systems should include at least one certification body that administers the procedure stipulated by the certification scheme. Most of the time, such a scheme

should include rules for administering the evaluation of competences and issuing certificates. Among the different means to evaluate competences, examinations are the most common. In this context, an examination should be understood as a “mechanism that is part of the assessment which measures a candidate’s competence by one or more means, such as written, oral, practical and observational, as defined in the certification scheme”² (ISO/IEC, 2012:2).

Box 12. An International Standard in Examinations for Professional Certification (ISO/IEC 17024)

The International Standard Organisation (ISO) and the International Electro-technical Commission (IEC) have developed a standard for personnel certification programmes (ISO/IEC, 2012). According to the ISO/IEC there is a development in the certification schemes for people: “in response to the ever increasing velocity of technological innovation and growing specialisation of personnel [that] can compensate for variations in education and training and thus facilitate the global job market” (ISO/IEC 2012:v). The international standard developed for the certification of persons “specifies requirements which ensure that certification bodies for persons operating certification schemes operate in a consistent, comparable and reliable manner” (ISO/IEC, 2012:v).

According to the ISO/IEC, examinations play a central role in the certification system because: “one of the characteristic functions of the certification body for persons is to conduct an examination, which uses objective criteria to measure the competence and scoring” (ISO/IEC, 2012:v). Nonetheless, it is also recognised that additional requirements can be included in order to reduce the risks of a conflict of interest in the administration of such examinations (ISO/IEC, 2012:v).

Source: International Standards Organisation and International Electro-technical Commission (2012) ISO/IEC 17024 standard for personnel certification programmes website: http://www.iso.org/iso/home/news_index/news_archive/news.htm?refid=Ref1625. Accessed 11 December 2.

According to the international standard, the certification process should be undertaken under principles of: i) impartiality: which means the presence of objectivity; ii) fairness: which refers to giving equal opportunity for success to each candidate in the certification process; iii) validity: which means providing evidence that the assessment measures what is intended to measure as defined by the certification scheme; and iv) reliability: which means the extent to which examination scores are consistent across different examination times and locations, different examinations forms and different examiners (ISO/IEC, 2012:2-3). Despite differences across countries, transparency and coherence are critical characteristics of effective certification systems. It does not matter what kind of institutional

arrangements are in place, a certification system must be transparent and coherent.

Recommendation

Strengthen the certification process giving employers' associations more responsibilities as well as improving the examinations associated with certification to enhance their validity and facilitate the recognition of prior learning.

Supporting arguments

This recommendation is supported by two arguments. First, employers' participation reinforces the value of certification. Second, additional routes to prepare examinations to obtain certification facilitate the recognition of prior learning and other forms of learning.

Employers are important for certification and examinations

In Germany, examinations are regulated by chambers representing employers from the relevant geographical region (Länd). Criteria and procedures for federally regulated examinations are defined by top level employer and trade union organisations (German Employers' Organisation for Vocational and Further Training and Confederation of German Trade Unions) (Hippach-Schneider et al. 2012). The content and method of examinations regulated by the chamber are defined by local chambers following the national legal framework and broad guidelines of the national chamber association (Fazekas and Field, 2013). A chamber-regulated examination can receive federal recognition if it exists in a few different states (Länder), has been in place for at least five years, and attracted at least 500 candidates over a specific period of time (Hippach-Schneider et al. 2012).

In Switzerland examinations are developed and conducted by professional organisations (employers, trade unions, trade associations and branch organisations) in response to demand for new skills. The federal administration approves examination rules submitted by professional organisations and provides support in organising examinations. It provides detailed guidance on how the exam should be conducted (e.g. main parts of the exam, their relative weight in the final score, types of assessment); who the examiners should be (e.g. experts coming from outside the professional association), and what level of competency the examinees should demonstrate. When reviewing examination rules it ensures the examination is supported and sponsored at national level, that there is a demonstrable

need for the examination, and that new credentials will not duplicate those already existing. This evaluation is supported by qualitative and quantitative analysis of the labour market. Development of new examination standards might involve some cost for professional organisations. If they are unable to cover costs on their own the federal government may provide a subsidy (OPET, 2011).

Additional routes to access certification, such as the recognition of prior learning, can make certification more transparent and stronger

The recognition of prior learning has multiple benefits. It helps to reduce the direct and opportunity costs of formal learning; by making acquired skills transparent, it improves the efficiency of the labour market; it helps adults with limited formal education to re-enter education and advance their careers; also, it might reward and therefore encourage learning in informal settings (Field et al., 2013).

Box 13. Monitoring the Recognition of Prior Learning in Iceland and France

In Iceland, the Education and Training Service Centre (ETSC) co-ordinates the development of a national strategy. The centre has, through pilot projects, developed a recognition of prior learning methodology with the main target group being people with poor formal education. The 12 lifelong learning centres around the country and the two centres for certified trades co-operate in carrying out recognition of prior learning projects. The ETSC is currently implementing a project on recognition of prior learning whereby upper secondary schools document the results of this practice and return the data to the ETSC. The information covers age, gender, subjects validated through recognition of prior learning methods and number of units, hours spent by assessors and guidance personnel. The ETSC track the costs of recognising prior learning based on this information.

In France, a 2007 survey was undertaken on those preparing for a level 5 qualification, drawing a sample from applicants for recognition of prior learning and covering a period ranging from 18 to 24 months, during which the applicants were in the process of accreditation. Outcomes were categorised according to whether accreditation was total or partial, whether applicants were waiting to sit examinations or had abandoned the procedure. A questionnaire compared occupational situations before and after the recognition of prior learning procedure was undertaken. In the case of employed workers, recognition of prior learning was found to have more of a positive effect within the employing organisation than on external mobility, in respect of promotion and increased job satisfaction.

Box 13. Monitoring the Recognition of Prior Learning in Iceland and France (*continued*)

Source: Méhaut, P and A.J Lecourt (2010), “Accreditation of Prior Experiential Learning in France: An Evolving System with National Characteristics” in CEDEFOP (2010), The European Journal of Vocational Training No. 48, 2009/3, www.cedefop.europa.eu/EN/Files/EJVT48_en.pdf; Recotillet, I and P. Werquin (2010), “APEL Pathways: A Passport to Employment” in CEDEFOP (2010), The European Journal of Vocational Training No. 48, 2009/3, www.cedefop.europa.eu/EN/Files/EJVT48_en.pdf.

Stakeholders need to see benefits from the recognition of prior learning. For individuals, the recognition of prior learning makes existing competences transparent to employers or to educational institutions. For the teaching profession the recognition of prior learning can be seen as a threatening since it involves “recognising” that knowledge and skills commonly imparted by professional teachers and trainers can also be acquired informally. It is no surprise that teachers and trainers may be reluctant to accept this conclusion. For educational institutions the recognition of prior learning may be unwelcome if it exempts someone from pursuing a course or programme, and as a result the institution loses out financially. For an employer, the recognition of prior learning may also be a threat. Workers commonly have informally acquired skills, and often those skills are only visible to their existing employer. From an employer’s point of view, the ideal employee is a highly skilled worker with skills visible only to their current employer and who therefore can only command a modest wage. Therefore recognition of prior learning is unattractive to employers as it may make the skills of their employees more visible to other employers. In practice, however, it is commonly observed that many employers do support training providing transferable skills – and one of the commonly cited reasons is that the skills acquired through training are only imperfectly observable by other employers –consequently they do not allow wages to be bid up (Field et al. 2013).

There are different ways to recognise prior learning. One approach is through professional examinations, pursued in one form in the Germanophone countries in the higher level examinations for master craftsman and other qualifications, but also in a quite different way in the common use of industry-driven examinations in the United States, or through occupational examinations, administered by the Ministry of Trade and Labour, in Israel. In these cases professional examinations are typically industry-led tests of competence in a profession. As such, there are typically

no or few mandatory requirements for preparatory courses, although many of those involved need to pursue such courses. Typically they are undertaken by those already working in a profession and in many cases experience in the profession is a precondition for pursuing the examination (Field et al. 2013). They therefore represent a mix of recognition of prior learning with the acquisition of further skills, coalesced into an exam and associated qualification.

Notes

- ¹ The German Agency for International Co-operation (GIZ) and the Government of Kazakhstan have been engaged in substantial efforts to develop and Independent Assessment and Certification. For more information, please check: German Agency for International Cooperation, GIZ (2013) *Support to Vocational Education and Training in the Republic of Kazakhstan*. Draft Version.
- ² The certification verifies that a competence - understood as the ability to apply knowledge and skills to achieve intended results- really exists (ISO/IEC, 2012). If the person fulfils all the requirements needed the certification body will issue a certificate that can be, depending on what is indicated by the certification scheme, of fixed or open-ended duration.

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Chapter 6

Support and enhance workplace learning

This chapter sets out recommendations to support and enhance workplace learning in Kazakhstan. Although by law, workplace learning is supposed to be part of VET programmes in Kazakhstan, there is little information about how this requirement is implemented in practice. This chapter recommends that workplace learning should be developed in order to improve the labour market relevance of VET and enhanced through an adequate framework.

Challenge

Although workplace learning is required in VET programmes by law and much effort is made to secure job internships for students it remains unclear to what extent workplace learning is fully implemented across all colleges in Kazakhstan and how quality is assured.

Workplace learning is mandatory by law but it remains unclear to what extent this is a standard practice.

Workplace learning is critical to the quality of VET. For this reason, the Ministry of Education and Science of Kazakhstan intends that elements of the dual system of training should be pursued in VET colleges. Students should undergo workplace learning under the supervision of an industry master at enterprises that have signed agreements for this purpose. The type, duration and content of the workplace learning component of VET programmes in Kazakhstan are supposed to be determined by each college through specific academic and working plans (MESRK, 2013).

According to the law no less than 40% of total study time should be undertaken as practical training inside companies (MESRK, 2013). But the Ministry of Education and Science also indicates that only 176 colleges follow this dual practice. If this figure is correct, only about 20% of VET colleges in Kazakhstan in 2013 are fully implementing this kind of dual system learning requirement (MESRK, 2013).

Important efforts have been made in Kazakhstan to secure job internships for VET students and teachers but they seem to remain insufficient.

According to the Ministry of Education and Science, more than 22 thousand agreements have been signed with employers to facilitate workplace learning placements for about 170 thousand students. But these represent only about 29% of all VET students enrolled in 2013 (587 310 students) (MESRK, 2013). In addition, agreements have been signed with employers for 5 thousand students to receive a stipend from companies while undertaking workplace learning placements with them (MESRK, 2013). Teachers are also beneficiaries of work placements. In 2013, almost 2 thousand VET teachers undertook some type of internship in industry.

Some large companies seem to be better positioned and willing to undertake workplace learning practices with students and VET colleges than others. For example, the Ministry of Education and Science has indicated that eight large companies of the Samruk-Kazyna Fund (that groups some of

the most important companies in the country) signed agreements with thirty VET institutions regarding co-operation in the introduction of workplace learning practices (MESRK, 2013). But there is little information about the level of engagement of other companies, SMES in particular, in similar agreements in Kazakhstan.

In theory, Kasipkor regards work-based learning central to good quality VET but, during conversations with the OECD team, Kasipkor staff indicated their concern about the challenges for upscale this project in those situations where VET institutions have fewer resources, employers are of smaller size and where there is no tradition or any precedent in the form of public private partnership between colleges and companies. This concern seems to be reinforced by the relative absence of SMEs representatives in VET discussions.

Recommendation

Strengthen and support the practice of workplace learning in Kazakhstan by enhancing its quality and links with employers through a framework that aims to include SMEs as well.

Supporting arguments

This recommendation is supported by two arguments. First, good quality workplace learning reinforces the labour market relevance of VET. Second, an adequate framework for employers' engagement should help in the implementation and monitoring of workplace learning.

Workplace learning reinforces the labour market relevance of VET.

Workplaces provide a strong learning environment in which to develop hard skills on modern equipment, and soft skills through real world experience of teamwork, communication and negotiation; workplace training facilitates recruitment by allowing employers and potential employees to get to know each other, while trainees contribute to the output of the training firm. Workplace learning opportunities are also a direct expression of employer needs, as employers will be keenest to offer those opportunities in areas of skills shortage. But the benefits of workplace learning depend on its quality. To reap these benefits, the placement has to be of quality, and this is not always the case. In the absence of quality control, workplace training opportunities for young people can degenerate into cheap labour, or involve very narrow and firm-specific skills (OECD, 2010c). In order to assist Kazakhstan with some examples of good practices

on this respect, the cases of Switzerland and Denmark in dealing with quality in workplace learning are presented in Box 14 below.

Box 14. Quality assurance in workplace learning in Denmark and Switzerland

In **Switzerland**, quality in postsecondary Professional Education and Training (PET) is controlled at two levels. Host companies are responsible for checking the progress of students. To help companies improve quality, the Swiss Conference of VET/PET Agencies and employers', employees' and trade associations created the *QualiCarte* project. It provides a checklist of 28 quality criteria describing key aspects of workplace training (including the engagement of the company, particular aspects of the initial phase of the training and the subsequent training process). These criteria are used by companies for self-assessment. Cantonal authorities control the quality of workplace training by issuing licences, which host companies must obtain to provide workplace training to students. To acquire a licence, companies must meet technical and staff criteria, and demonstrate that their training programme complies with quality standards and the content of training matches the needs of the occupation.

In **Denmark**, quality assurance mechanisms for workplace training in postsecondary programmes have three key features:

- The quality assurance process is built into the work placement arrangements: these are a decisive factor for the accreditation of new programmes by the Danish Evaluation Institute.
- Attention is given to making these placements as useful as possible for both VET programmes and employers and the analysis of those links forms part of the accreditation process by the Danish Evaluation Institute.
- The work placement arrangements are designed to be closely linked to learning outcomes. Subsequently to their placement, students report back to their institutions and they are assessed to see if they have met their learning objectives. To ensure this, each student has a teacher or a supervisor for guidance.

Source: OPET (2008), Vocational and Professional Education and Training in Switzerland, National report from Switzerland contributing to the OECD Review of VET, "Learning for Jobs"; Field, S., et al. (2012), A Skills beyond School Review of Denmark, OECD Reviews of Vocational Education and Training, OECD Publishing. doi: <http://dx.doi.org/10.1787/9789264173668-en>.

Kazakhstan should be encouraged to ensure that the mandatory character of workplace learning is fully implemented, not only in those 176 colleges aiming to introduce dual system practices. There are several options

that Kazakhstan could follow in order to fully integrate workplace learning to all VET programmes and colleges. In many countries, outside formal apprenticeships, where workplace learning is the central element, VET programmes make variable, but sometimes extensive use of workplace learning as a component of programmes, often in the form of fixed “blocks” such as three month internships. In some cases the requirement is mandatory. For example the Spanish two-year higher vocational education programmes include a required three-month internship right at the end of the programme (sometimes facilitating labour market insertion); in Denmark short cycle Academy programmes include a mandatory three month internship, while the professional bachelor programmes include a mandatory six month internship. A mandatory arrangement is sometimes initially difficult, as employers and vocational training institutions adjust. Courses designed primarily for part-time students who are in work often make less formal use of workplace training, since it is often assumed that students are already gaining relevant experience through their ordinary work. More detail about the Spanish and Danish cases is offered in Box 15 below. It is worth nothing that, in the Danish case, the provision of VET can be actually limited to the availability of workplace training places for students.

Box 15. Mandatory workplace training in school-based VET programmes: Spain and Denmark

In **Spain** all postsecondary (as well as upper secondary) VET programmes include a compulsory module of workplace training. Only students who have at least one year full-time relevant work experience may be exempted. The work placement lasts between 10 and 20 weeks, depending on the qualification targeted by the programme. The objectives of work placements include complementing school-based learning to facilitate transition into the labour market, learning about work environments, promoting professional identity and maturity, and evaluating learning outcomes that cannot be assessed outside a work context. Generally, students participate in workplace training after successful completion of other modules included in the programme. But if the type of training or the availability of places in companies requires it, work placement may be completed at another point of the programme. During the work placement students receive guidance and support from a teacher at the VET institution they attend and from the person who supervises their work at the company.

Source: Spanish Ministry of Education and Science (2007), Real Decreto 1538/2006, Boletín Oficial del Estado; Spanish Ministry of Education, Culture and Sport (2011), El portal de la formación profesional, www.todofp.es, accessed December 2011.

In **Denmark** participation in workplace training has been mandatory in all postsecondary VET programmes since 2009. The aim of making it mandatory was to ensure that programmes are professionally oriented, and relevant to employers and students. In the majority of occupations vocational provision is limited to the availability of workplace training opportunities – institutions cannot increase student intake if work placements are not available for additional students. In a small number of occupations (*e.g.* teachers, nurses) provision is regulated by government defined quotas. The duration of the work placement is three months in short-cycle (academy) programmes and six months in medium-cycle (professional bachelor) programmes and it can take place at one or several companies. VET institutions are responsible for ensuring that the work placement is adapted to the content of the programme. Although not required by law, many institutions prepare an agreement with the company that offers workplace training, setting out the content of the work placement. At the end of their placement students are individually assessed to check that they have acquired the targeted competences.

Source: Danish Agency for Higher Education and Educational Support (2012), Skills beyond School: OECD Review of Post-Secondary Vocational Education and Training National Background Report for Denmark, <http://en.fivu.dk/publications/2012/oecd-review-skills-beyond-school/oecd-review-skills-beyond-school-denmark.pdf>

An adequate framework for partnerships between colleges and companies might facilitate workplace learning implementation and monitoring its quality.

Offering workplace training creates various challenges for companies. Kis and Park (2012) indicate that workplace learning involves additional administrative tasks for companies. Experienced staff needs to allocate part of their time to supervising the trainee, a task that requires both management and training skills. For these authors, this can be burdensome for small and medium enterprises, which may lack the administrative and managerial capacity to deal with these additional tasks (Kis and Park, 2012:104). This is why an inclusive framework for workplace learning practices can be particularly useful for SMEs. In other parts of this review, it has been emphasized that VET teachers need also to pursue workplace learning arrangements. Whatever framework is adopted it should establish clear obligations for both employers and VET colleges as well as mechanisms for monitoring compliance and undertaking adjustments as needed. The box below, offers some details about the framework for workplace learning undertaken by the Community of Madrid, Spain. The framework covers the specification of training plans as well as mechanisms for monitoring and evaluating the practice.

Box 16. Legal framework for workplace training: Community of Madrid, Spain.

In **Spain** national legislation stipulates that participation in work placement is mandatory for all upper secondary or postsecondary VET students. Autonomous communities create their own legal framework for implementation. The instructions set by the education authorities of the Community of Madrid include, among others, the following requirements:

Collaboration agreements. Workplace training takes place under collaboration agreements signed by the company's (or other collaborating institution's) legal representative and the school's principal, subject to approval by the General Directorate for Secondary and Vocational Education. Annexes to the agreement will specify information on participating students, the place of training, start and end dates, hours of work, and details of the training programme.

The **training plan**, annexed to the collaboration agreement, specifies the set of training activities that the student will perform while in the company. The training plan is agreed between the teacher who supervises the workplace training on behalf of the school and the person responsible on behalf of the company.

Timing. Workplace training takes place after the completion of other modules required by the programme. It takes place during the academic year (*i.e.* excluding holidays), unless specific circumstances require it to be otherwise.

Monitoring and evaluation. The workplace training module is evaluated by the teacher who supervises the module on behalf of the school. The teacher has to visit the company at least every two weeks. The purpose of the visits is to interview the in-company supervisor of the student, observe the students and document the monitoring process. The evaluation of the workplace training module will take into account the evaluation criteria defined for the training plan, information collected during visits to the company, information provided by the students and the company's assessment of the student.

Relationship between the student and the company (or other collaborating institution). Students are covered for workplace accidents under the regulations on Student Insurance.

Source: General Directorate for Secondary and Vocational Education, Community of Madrid, Spain (2009) Instrucciones de la Dirección General de Educación Secundaria y Enseñanzas Profesionales, por las que se acuerdan, para los centros públicos, determinados aspectos relativos al módulo profesional de formación en centros de trabajo, www.madrid.org, accessed December 2011

At the moment, employers' involvement in workplace learning in Kazakhstan seems to be in two areas mainly: either large state-owned companies participating in specific projects, like Kasipkor, or where individual VET colleges seem to be well-positioned to establish partnerships with employers in an ad-hoc basis. In this sense, a broader framework or arrangement should be encouraged to trigger sustainable partnerships between VET institutions and companies making it sure that SMEs and smaller VET colleges are included. As mentioned in other section of this review when dealing with autonomy at school level, it seems that not all VET institutions are currently able to get the most out of the links with employers so the co-ordination and grouping several social partners and colleges might help to create arrangements that would otherwise be difficult for individual agents given their size or lack of resources. The examples of Australia and Norway are relevant (see Box 17).

Box 17. External bodies involved in the organisation of workplace learning for VET students

In **Australia** Group training organisations (GTOs) are not-for-profit organisations supported by public authorities, with some charges to host employers. The role of GTOs is to employ apprentices and hire them out to host employers. They sometimes focus on a particular industry or region. The tasks performed by GTOs include:

- Selecting apprentices to suit the needs of employers.
- Arranging and monitoring training both on and off the job.
- Taking care of the administrative duties involved.
- Ensuring that apprentices receive a broad range of training experience (if necessary, apprentices are rotated from business to business).
- For research papers on GTOs see: www.ncver.edu.au/publications/bytheme.html.

Source: Department of Education, Employment and Workplace Relations (DEEWR) (2011), training.com.au website www.training.com.au, accessed December 2011.

Box 17. External bodies involved in the organisation of workplace learning for VET students (*continued*)

In Norway, Training offices (opplæringskontor) are owned by companies and usually concern specific trades. They work actively to identify potential training companies and establish new apprenticeship places, supervise companies with apprentices, and train staff involved in the tutoring of apprentices. Many training offices organise the theoretical part of the apprentices' training. They often sign the apprenticeship contracts on behalf of smaller training enterprises, thereby becoming accountable for completion of the training and its results.

Source: Norwegian Directorate for Education and Training (2008), Responses to the National Questionnaire – OECD Learning for Jobs, unpublished.

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