

Raising the quality of initial teacher education and support for early career teachers in Kazakhstan

Introduction

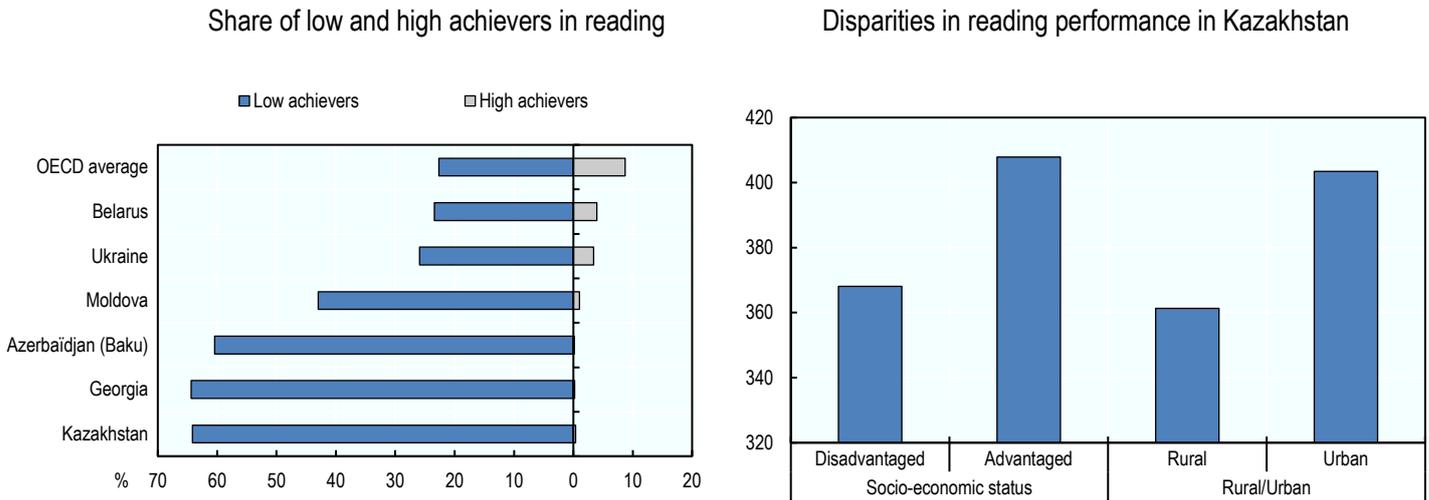
Since achieving independence in 1991, Kazakhstan has undergone rapid development and emerged as a regional economic leader. Recent ambitions, expressed notably in the long-term strategy Kazakhstan 2050, aim to strengthen and diversify the economy in order to position the country as a global leader (Republic of Kazakhstan, 2016^[1]). A key priority in this strategy is to develop the knowledge and professional skills of Kazakhstan's population, 28% of whom were below the age of 15 in 2018 (compared to an OECD average of 18%) (World Bank, 2018^[2]). Kazakhstan has already made tremendous progress in providing access to all levels of schooling. Today, enrolment in primary and lower secondary education is nearly universal. Moreover, almost all graduates from lower secondary school continue to either general upper-secondary school or vocational studies and roughly half of Kazakhstanis between the ages of 25 and 34 now hold a tertiary degree, which is greater than the OECD average of 41% (see Annex A).

Having achieved high levels of educational access, Kazakhstan is now turning its attention towards improving educational quality. To understand progress in this area, Kazakhstan benchmarks its educational performance against those of leading economies through international surveys, such as the OECD's Programme for International Student Assessment (PISA). Results from PISA 2018 reveal that the average Kazakhstani student scored around 100 points below the OECD average in reading and around 64% of Kazakhstani students were unable to achieve a baseline level of reading proficiency needed to participate fully in society (OECD, 2019^[3]). This share of low performers is much higher than the OECD average (23%) and one of the highest among PISA participating countries in the OECD Eurasia Competitiveness Programme (Figure 1)

Results from PISA 2018 also show large degrees of inequity in Kazakhstan. Factors such as socio-economic background and, in particular, school location can influence students' performance (Figure 1). Whether the schools of Kazakhstani students are in rural or urban communities explains a greater share of student variance in reading performance (6.7%) than across OECD countries (4.5%). For instance, students in Nur-Sultan city, the national capitol, scored 428 on average, compared to 344 for students from Atyrau, a comparatively more rural region (Figure 2). These findings can be partially explained by a national focus on developing a cadre of very high-achieving students combined with a lack of adequate attention to improving education provision in marginalised areas. In 2008, the government established the Nazarbayev Intellectual Schools (NIS), a network of 20 high-performing schools to which entrance is highly selective and competitive. While students from these schools achieve impressive outcomes, the

pedagogical initiatives they have incubated are difficult to scale and not always well adapted to schooling environments in all parts of the country. Meanwhile, students in areas such as Atyrau struggle to achieve basic minimum standards, influencing their chances of attending tertiary education and finding good employment.

Figure 1. Reading performance in Kazakhstan in PISA 2018



Note: The 13 countries included in the OECD Eurasia Competitiveness Programme are Afghanistan; Armenia; Azerbaijan; Belarus; Georgia; Kazakhstan; Kyrgyzstan; Mongolia; Republic of Moldova; Tajikistan; Turkmenistan; Ukraine and Uzbekistan. Only countries with PISA data are included in the figure.

Source: PISA 2018 Database.

Figure 2. Regional differences in reading performance



Note: Not depicted are the cities of Nur-Sultan and Almaty, which have special administrative status. Nur-Sultan scored 428, while Almaty scored 424

The challenge of widening inequalities in Kazakhstan is compounded by demographic trends that are straining the system’s capacity to provide a quality education for all students. Rapid urbanisation has created overcrowded schools in cities across the country. As of 2018, over 6% of students attended schools that operated in triple shifts (IAC, 2019^[4]). Meanwhile, achieving universal access to education in a large country with many remote communities has created an extended network of small rural schools that face challenges related to poor infrastructure and staff shortages (IAC, 2019^[4]; OECD/The World Bank, 2015^[5]). Particularly representative of these circumstances are “ungraded schools”, which do not have enough students to form full classes of separate grades. As of 2018, around 41% of public schools were ungraded schools, though they only enrolled 6% of the student population (IAC, 2019^[4]).

To develop the sustainable and knowledge-based economy that Kazakhstan envisions, the government needs to create systems and instruments that help it understand how all students are performing and how they can be supported in their learning. This OECD country review examines four educational policy areas (see Box 1) that Kazakhstan can focus on in order to improve the outcomes of all students.

Box 1. The OECD’s review of education evaluation and assessment policies in Kazakhstan

This policy perspective is one in a series of four that draw on an OECD knowledge base created through reviews of evaluation and assessment policies in over 25 education systems. To complete this review, the Ministry of Education and Science of Kazakhstan (hereafter, the Ministry) and the OECD review team chose a specific policy issue within four broad areas of evaluation and assessment (student assessment, teacher appraisal, school evaluation and system evaluation). The selected issues are:

- Strengthening national examinations in Kazakhstan to achieve national goals
- Raising the quality of initial teacher education and support for early career teachers in Kazakhstan
- Developing a school evaluation framework to drive school improvement
- Developing a national assessment that supports Kazakhstan’s education goals

The review of these policy issues was based on national information that Kazakhstan provided to the OECD, background research and a visit to different parts of the country in November 2019. During the visit, a team of OECD staff met with key actors across the education system to discuss the policy issues. This evidence formed the basis of the policy perspectives, each of which provides actionable recommendations based on insights from international practices to help Kazakhstan strengthen student learning while making learning outcomes more equitable.

The importance of evaluation in ensuring quality teaching

Like most OECD countries, Kazakhstan is focused on transforming education to ensure that it prepares students for changing socio-economic realities. This transformation implies reforms not only to the curriculum and to national expectations for student learning, but also to expectations for the teaching workforce. The recent introduction of a competence-based approach to learning requires that teachers are able to use student-centred approaches and strategies that develop higher order cognitive abilities. Teachers also must be more adept at integrating new technologies and methods of assessment into their classroom practice that can measure applied learning and cross-curriculum competences. Effective evaluation mechanisms play a fundamental role in supporting teachers to adopt such approaches.

At the system level, quality assurance mechanisms and tools such as standards, guidelines, accreditation and different forms of audit can be powerful levers to redirect teacher education so that it prepares teachers to help achieve educational priorities, deliver the national curriculum and effectively support student

learning (OECD, 2013^[6]). An effective evaluation system gives training providers – including institutions and teacher educators – incentives and support to continuously improve their programmes and build their capacity in order to best support teachers.

At the individual level, teachers need regular feedback throughout their whole career to help them improve their teaching practice (OECD, 2013^[7]). Teacher appraisal (or teacher evaluation—used interchangeably in this policy perspective) refers to how teachers are assessed and given feedback on their performance. An effective appraisal system provides teachers with incentives and support to develop their competences. When used this way, appraisal can not only improve teachers' practices, but can also positively influence their attitudes and motivation, which can help to improve students' learning outcomes (OECD, 2013^[7]). Teacher appraisal also functions as an incentive, recognition and reward for effective teaching and can help raise the overall prestige and quality of the profession.

The role of evaluating initial teacher education and early career support

Initial teacher education (ITE) is a key stage in teachers' career-long professional learning, which ensures that beginning teachers feel confident and competent to start their careers. There is substantial evidence that the quality of teacher education has a significant impact on teacher quality, i.e. course content, opportunities to link theory and practice, as well as regular and constructive feedback given by a competent teacher educator (Darling-Hammond, 2006^[8]; Grossman, Hammerness and McDonald, 2009^[9]). A comprehensive evaluation of ITE institutions programmes and staff, through the usage of programme accreditation and certification processes, can help ensure that teachers enter the workforce well prepared to help students learn.

The transition from ITE to working in schools is a critical stage in the process of becoming a teacher. Strong support during the early years of a teacher's career is fundamental to creating and maintaining a high-quality teacher workforce. High-quality induction programmes, such as mentoring, can reduce beginning teachers' "practice shocks" and isolation, increase their self-confidence, and improve their teaching skills (Ingersoll and Strong, 2011^[10]; Hobson et al., 2009^[11]). Evaluation processes can help strengthen the effectiveness of early career support. These processes include giving substantive formative feedback to early career teachers, but also assessing and developing the competences of mentor teachers to provide appropriate feedback and support. Well-developed professional standards and guidelines for evaluating beginning and mentor teachers are useful tools to strengthen such processes.

Teachers and changes in teacher policies in Kazakhstan

Teachers' demographic characteristics

In the 2017-18 school year, Kazakhstan had 296 960 teachers. Teaching is a feminised profession in most OECD and partner countries, and is even more so in Kazakhstan. Lower-secondary teachers are younger on average in Kazakhstan than in OECD countries according to TALIS data (OECD, 2019^[12]). Given Kazakhstan's large rural proportion, almost half of the country's lower-secondary teachers teach in rural schools compared to only 15% on average in OECD countries. For all levels of education, this proportion was 59% in the 2018-2019 school year.

Table 1. Distribution of teachers by level of education and years of experience

From primary (ISCED 1) to upper-secondary (ISCED 3) schools in 2017

	Number of teachers	Percentage to total
Total	296 960	100%
Level of education		
Higher education	269 568	90.78%
Secondary vocational education (teacher college)	27 207	9.16%
General secondary education	185	0.06%
Years of experience		
less than 3 years	35 831	12.07%
3 - 5 years	28 271	9.52%
6 - 10 years	46 790	15.76%
11 - 15 years	41 329	13.92%
16 - 20 years	33 964	11.44%
More than 20 years	110 775	37.30%

Source: (IAC, 2018^[13]). Statistics of the Education System of the Republic of Kazakhstan for 2017-2018 academic year. Astana. http://iac.kz/sites/default/files/nacionalnyy_sbornik_2017-2018.pdf (accessed 28 April 2020).

While Kazakhstan should not face important overall teacher shortages in the near future – e.g. the number of graduates in the various specialisations well exceed the number of vacant positions – local and specific shortages exist (OECD/The World Bank, 2015^[5]). In particular, ungraded schools often cannot afford having subject specialists because of the low number of students, which means that teachers often teach subjects in which they are not qualified. According to TALIS 2018, 26% of school principals reported that a shortage of qualified teachers hinders the school's capacity to provide quality instruction, which is slightly higher than the OECD average of 21%. This proportion is around 30% in rural areas and villages, while only 17% in cities, although this difference is not statistically significant.

In many countries across the OECD, new teachers work in challenging environments, such as schools with socio-economically disadvantaged students (OECD, 2019^[12]). Working in such environments has a negative impact on teachers' satisfaction with the profession and with their jobs in a number of countries (Mostafa and Pál, 2018^[13]). In Kazakhstan, early career teachers (0-5 years of experience) were about 21% of the teacher population in 2017 (see Table 1). Around one quarter of new teachers start their careers in rural schools and, similar to new teachers across the OECD, almost 30% in schools where the concentration of socio-economically disadvantaged students is high (above 30%). Teacher retention seems to be a challenge in Kazakhstan. National TALIS data shows that only about one third of the country's young teachers (under the age of 30) are planning to stay in the profession until retirement, whereas slightly more than one third would like to leave the education sector entirely (IAC, 2019^[14]) Effectively preparing young teachers through initial training and early career support will be vital for retaining young teachers.

Table 2. Enrolment and graduation in ITE (2018)

	Number of students newly enrolled in 2018	Total number of students enrolled in 2018	Number of graduated students in 2018	Expected graduation in 2019
Universities	47 057	149 028	38 321	44 113
Colleges	20 346	74 607	20 151	N/A ¹

Note: The National Education Database does not include data on expected graduation from college ITE programmes. Sources: Statistics Committee of the Ministry of National Economy (2018^[15]),

National Education Database

Teachers’ qualifications

Over 90% of teachers in 2018-2019 had a higher education degree in Kazakhstan (see Table 1). However, the vast majority of these – 91% – are bachelor’s degrees, while only 2% of teachers hold a master’s degree (Ministry of Education and Science, 2018^[15]). There are five levels in the teaching career track in Kazakhstan since 2018: teacher (newly qualified), moderator teacher, expert teacher, researcher teacher and master teacher.

Teacher salaries

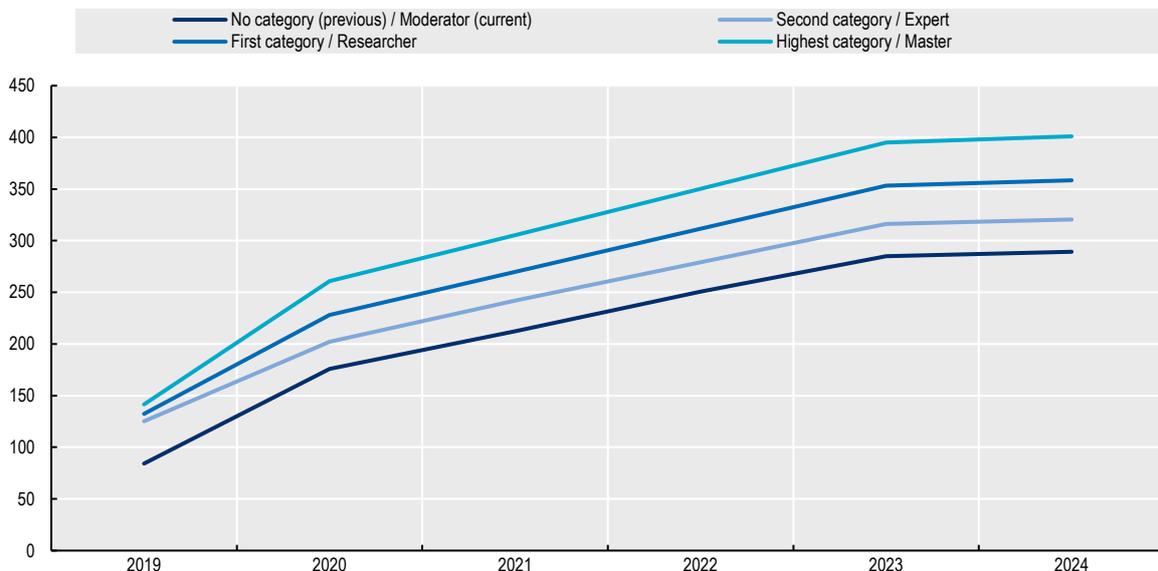
Teachers are paid according to the salary scale defined for civil servants. Compensation includes their basic salary, career development-related compensation, compensation for additional tasks, and special allowances (OECD/The World Bank, 2015^[5]). Salary supplements for the different career stages are, with respect to the base salary:

- moderator teacher - 30%
- expert teacher - 35%
- researcher teacher - 40%
- master teacher - 50%

The government has planned a gradual and substantial increase to teachers’ salaries (Figure 3).

Figure 3. Planned increase in teachers’ salaries in Kazakhstan

Monthly total salary (in thousands of Kazakhstani Tenge) for teachers with a higher education degree and teaching in general education, including supplements for additional tasks.



Notes: Categories represent a teacher’s status under the previous system and their status under the current system. The previous career system had four career stages, while the current one has five. Data in the figure is missing for teachers with no category (at the beginning of their career) in the current career system. Source: Data provided by the Ministry of Education and Science.

Additional tasks for which teachers receive compensations are: working in special conditions, correcting students' homework assignments, classroom management, new curriculum, class supervision and mentoring. With the exception of mentoring, teachers in all career stages receive these supplements as a percentage of their fixed or base salary. The supplement for mentoring has recently been introduced (taking effect in 2020) and is a fixed amount that only researcher and master teachers in general education receive. The most lucrative is teaching one of four science subjects in English (200% of the base salary), which supports the country's priority of making Kazakhstan a trilingual nation.

Recent and upcoming reforms in teacher policies

The OECD has recommended that Kazakhstan strengthen its teaching profession by making it more attractive and raising qualification standards (OECD/The World Bank, 2015^[5]). In line with this recommendation, Kazakhstan has been working on increasing the status the profession and revising teachers' rights, social benefit systems, as well as duties and responsibilities.

In the new State Programme for the Development of Education and Science, the government aims to improve teachers' working conditions, as well as initial and continuing teacher education. The Ministry of Education and Science (MoES) engaged teachers, university faculty, public servants and parents in a public discussion on the draft law that responds to the objective. The new law took force in January 2020 (Government of Kazakhstan, 2019^[16]). Changes include:

- Developing alternative ways to enter the teaching profession for people with disciplinary qualifications (e.g. with physics, mathematics, history degrees) but no teaching qualifications.
- Recognising mentors' work legally and guaranteeing a salary supplement.
- New working conditions, including salary increases (spread out for the period of 2020-25) and fewer teaching hours (defined for each level of education).
- Introducing reward systems, including salary supplements for teachers who hold a master's degree and "Best teacher" awards.

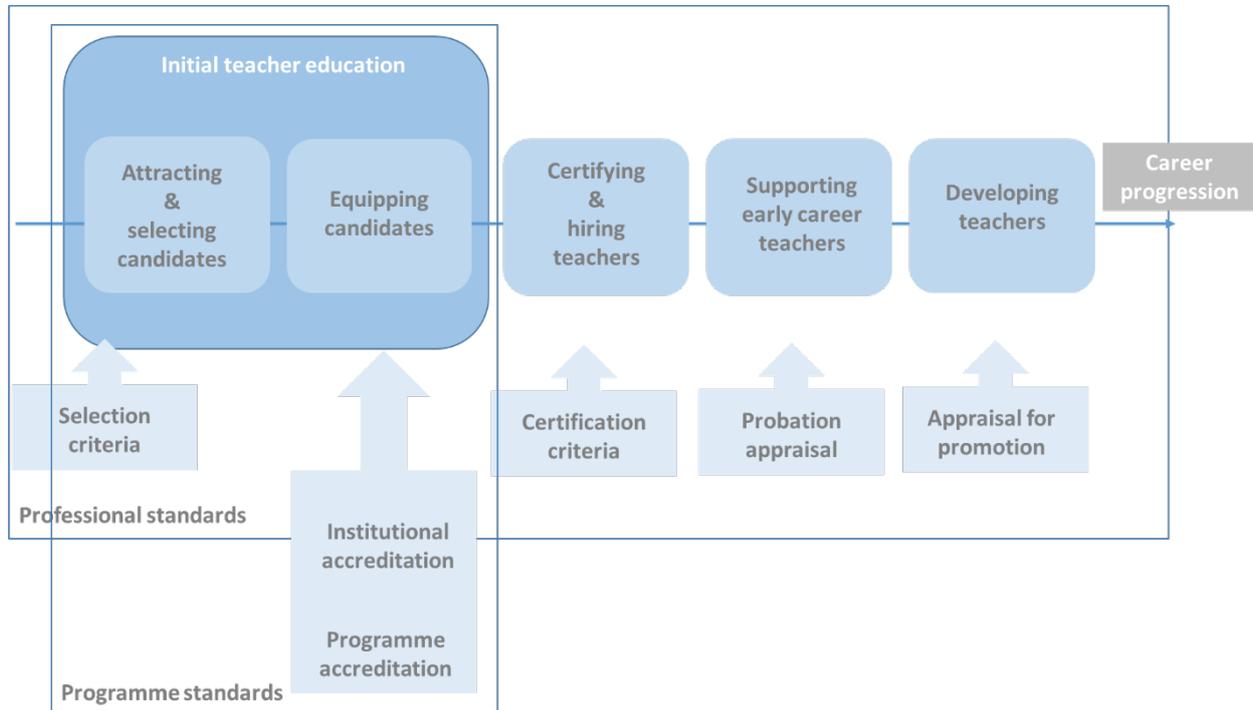
Kazakhstan also introduced professional standards for teachers in 2017 and a new career system for teachers in 2018. While previously there were four teacher categories, there are now five (see section above), each linked to particular teacher competences. The new system is accompanied by new teacher appraisal mechanisms. In particular, there are plans to introduce an external certification mechanism that evaluates newly qualified teachers. Further changes to the related appraisal system are also anticipated.

As part of improving the quality of teaching, Kazakhstan is also planning to consolidate its initial teacher education system. The Committee for Quality Assurance in Education is currently tasked with developing requirements for licensing ITE institutions. The World Bank is also supporting the country by developing 30 study programmes for the education major (26 at the bachelor's and four at the master's level) in line with the new school curriculum. ITE institutions will then be able to adapt these to their own needs and capacity (World Bank, 2017^[17]).

Key features of evaluating initial teacher education and early career support in Kazakhstan

Ensuring quality teaching requires a systemic perspective that considers teachers' career progression as a continuum, starting from attracting candidates to the profession through continuously developing in-service teachers. Each of the key stages of teachers' career progression (depicted in Figure 4) is supported by various types of evaluation mechanisms. These are described next.

Figure 4. Ensuring quality teaching – analytical framework



The initial teacher education landscape

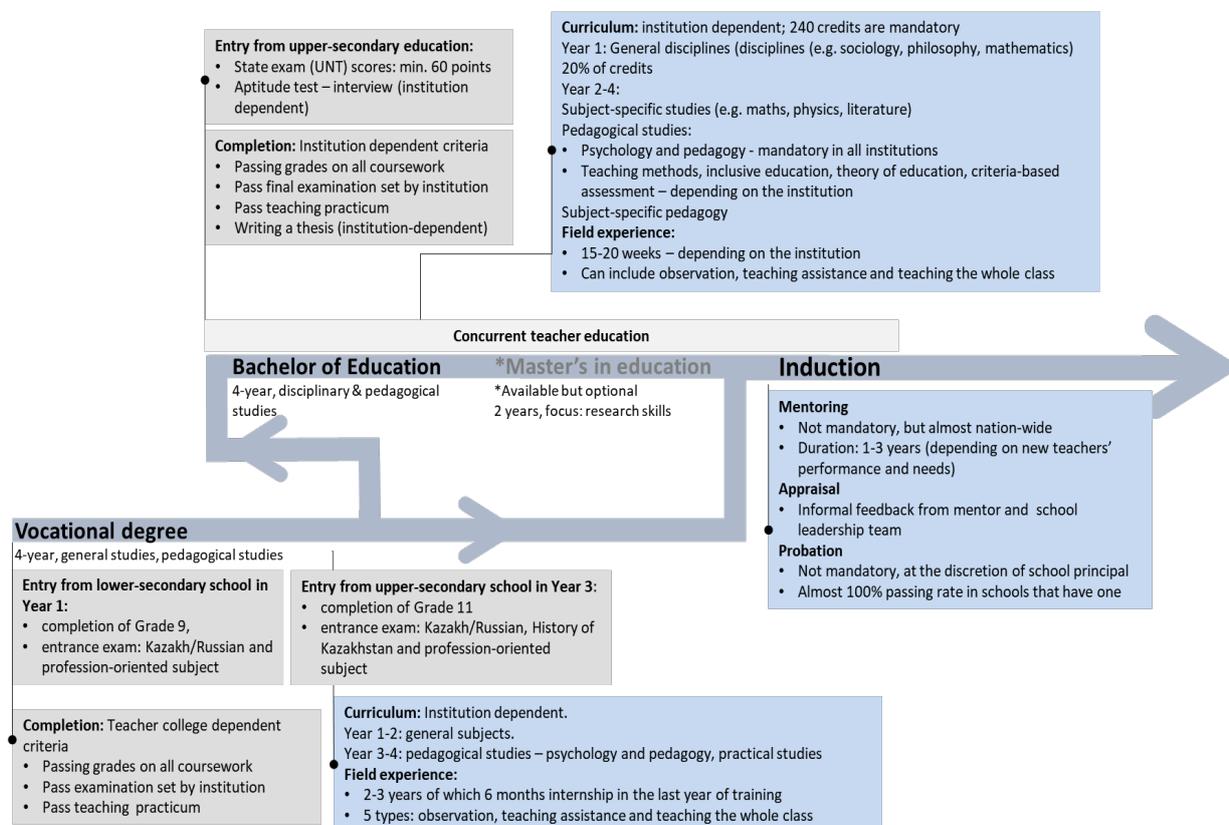
Most countries offer different pathways into teaching, including various degree programmes, concurrent and consecutive programme structures. Offering both graduate and postgraduate programmes is important for providing flexible routes into the profession. Postgraduate programmes can contribute to raising the status of teaching. A master’s degree is the minimum requirement for secondary-level teachers in most OECD countries (OECD, 2014_[18]), and increasingly more countries require a master’s for primary school teachers (Toril, Lund and Simonsen, 2018_[19]). Offering a vocational (post-secondary, non-tertiary) track to enter the teaching profession is rare in OECD countries and usually only prepares pre-primary teachers (OECD, 2014_[18]).

Alternative routes for established professionals who wish to transition into teaching exist in around half of countries with available data (OECD, 2014_[18]). These options can broaden the recruitment base, which is especially important in countries with teacher shortages. Most of these routes include some training in traditional teacher education institutions, although it is also possible to enter the teaching profession without specific training under certain conditions (OECD, 2014_[18]).

The various pathways into teaching in Kazakhstan – as well as the entry requirements, the key components of programmes, and completion criteria – are summarised in Figure 5. In Kazakhstan, only concurrent programmes are offered that lead to either a bachelor’s, a vocational or a master’s degree. Kazakhstan has just introduced alternative routes to enter the teaching profession, available for those who hold a non-teaching qualification and have just started to work as teachers, within the framework of the law “On Teacher’s Status”. The programme for alternative routes are determined on an individual basis in between an ITE institution (university) and the student, taking into account the needs of the labour market, the expectations of employers and the individual interests of the student in line with the teaching standards (Ministry of Education and Science, 2020_[20]).

Figure 5. Pathways to teaching in Kazakhstan

Degree programmes, curriculum, entry and completion requirements



There are 86 higher education institutions in Kazakhstan that offer ITE programmes, of which nine are pedagogical universities that only offer teacher education courses. Graduates of these programmes receive a bachelor's degree. Some universities also offer master's degrees in some subject specialisations.

There is also 277 teacher colleges in the country, of which 266 are comprehensive colleges with ITE programmes and 11 are specialised ITE colleges (based on 2018 data). These vocational institutions accept individuals who graduated from lower-secondary school (Grade 9) or those who graduated from upper-secondary school (currently Grade 11). The duration of vocational studies is four years for the former, and three years for the latter. Graduates of teacher colleges obtain a post-secondary vocational degree that qualifies them to teach in primary schools and certain subjects (arts, music, physical education) in lower-secondary schools. College students who graduate in a subject major (e.g. Kazakh/Russian language, mathematics, physics) are entitled to teach their subject in lower-secondary schools. In OECD countries, holders of a post-secondary, non-tertiary qualification cannot teach in primary and higher levels (OECD, 2014^[18]). The majority of vocational graduates in Kazakhstan, however, continue their education in a teacher education bachelor's programme. Only about 19% of primary school teachers do not have a higher education degree (IAC, 2018^[21]). The new law on teacher status incentivises obtaining a master's degree with salary supplements and allows schools to require a master's degree from new teachers.

The number of ITE providers in Kazakhstan needs to be considered within the geographical and demographical context of the country. While it is important to make ITE available across the large country, the 352 (266+86) institutions are globally oversupplying Kazakhstan with teachers. In comparison, Australia, which has a comparable population spread across large rural areas, has only 48 ITE providers

(OECD, 2019^[22]). In 2015, the OECD recommended that Kazakhstan consolidate its ITE provision and discontinue post-secondary, non-tertiary teacher training programmes (OECD/The World Bank, 2015^[5]).

Attracting and selecting candidates

Attracting and selecting the right candidates into teacher education can raise the status of the teaching profession and help develop a motivated and competent teaching workforce (OECD, 2019^[23]). Effective selection mechanisms are underpinned by clear and objective criteria that consider academic achievement and “soft” competences such as professional responsibility and career goal orientations (OECD, 2019^[23]). The assessment of candidates’ competences can be based on school grades, final examination results and entrance examinations that can be general or specific to teacher education. A comprehensive assessment also includes interviews or portfolios that assess candidates’ motivational characteristics.

In 2014, 25 out of 36 OECD countries had selective criteria or additional requirements in place to enter or to progress in ITE (OECD, 2014^[18]). While ITE in high-performing systems is generally selective, this is not the only quality feature of ITE systems. An ITE programme may not be highly selective, but may still do an excellent job in preparing teacher candidates (Feuer et al., 2013^[24]).

To enter university-based ITE in Kazakhstan, candidates are required to pass the Unified National Test (UNT, tertiary education entrance examination). Students with a minimum score of 60 could be admitted until 2020, which was lower than for medical programmes but higher than the minimum UNT passing score of 50. The minimum score was increased to 70 in 2020. Some universities have introduced an aptitude test since 2016 to raise entry requirements, which consists of problem-solving skills in a teaching situation. However, most universities report difficulties in attracting candidates, which, in the end, results in little selection. Universities also report differences between candidates coming from upper-secondary schools and those coming from vocational teacher colleges. The latter group is often more motivated to become teachers and are better prepared because of their vocational training and substantial field experience. Kazakhstan has recognised the importance of raising the status of the profession (see new law) which, in the long run, will hopefully impact the number of candidates teacher education programmes can attract.

Equipping candidates through ensuring quality teacher education

Equipping teacher candidates with the necessary knowledge and competences is essential for them to support student learning as new teachers. Quality assurance, however, needs not only to focus on outcome measures and ensuring minimal standards, but should also develop internal capacity to continuously improve programmes (Toon, Jensen and Cooper, 2017^[25]). In the case of teacher education, this includes ensuring that institutions have the autonomy and capacity to adapt their programmes to changing national school curricula and integrate emerging research on teaching and learning.

A high level of autonomy creates the conditions for competition among universities and provides space for institutions to lead improvements (OECD, 2017^[26]). However, it potentially results in a high degree of variability across different programmes and ITE providers. Therefore, autonomy should be accompanied by well-designed quality assurance mechanisms that ensure that all programmes meet minimum standards and support capacity building. Some form of quality assurance is mandatory in most OECD member countries (OECD, 2019^[27]). The two most prominent tools are institutional and programme accreditation.

Accreditation of higher education institutions and programmes

Institutional accreditation concerns an institution’s registration and continued operations as a higher education institution (OECD, 2019^[27]). In some countries it is compulsory, in others it is voluntary and serves as a mark of quality to stakeholders that the institution meets certain educational standards (OECD, 2019^[27]). Programme accreditation ensures that specific programmes meet general standards in areas,

such as learning and teaching, research and research training, institutional quality assurance, governance, accountability and information (OECD, 2008^[28]; OECD, 2019^[27]). Accreditation procedures usually define the stages and frequency of accreditation, as well as its consequences.

Following the recommendations of the OECD in 2015 and 2017 (OECD/The World Bank, 2015^[5]; OECD, 2017^[26]), Kazakhstan has given more autonomy to its universities. Today, institutions can develop their own educational programmes and can choose to implement joint academic activities and programmes with partner universities, including foreign partners. Higher autonomy was accompanied by establishing external quality assurance processes. However, institutional and programme accreditation (this latter called specialised accreditation in Kazakhstan) for both higher education and secondary / post-secondary vocational institutions remains voluntary in Kazakhstan.

Previously only two Kazakhstani and four foreign agencies had the right to conduct accreditation in the country. In 2018 a new law lifted this constraint and established the National Register of Accreditation Agencies (Minister of Education and Science, 2016^[29]). The law sets out criteria and procedures for agencies to become registered, suspended or excluded. There is no maximum number and today approximately ten agencies are in the register. Some of these specialise in certain domains such as engineering, the medical profession or music, while others have a more general profile. Institutions can apply to one of the agencies and need to cover the accreditation costs. Approximately half of all higher education institutions and 60% of pedagogical universities are accredited by the Independent Agency for Quality Assurance in Education (IQAA). The Independent Agency for Accreditation and Rating (IAAR) is the other major agency and has accredited about one third of higher education institutions (ENIC, 2019^[30]).

Agencies develop their own accreditation standards in line with national regulations. Some of them, such as the IQAA and IAAR, have well-developed standards and procedures in line with international standards (e.g. both IQAA and IAAR standards and procedures correspond to the European Standards and Guidelines and the Bologna process). All agencies issue accreditation for a given period of time (e.g. five years for IQAA) and require regular re-accreditation. According to IQAA procedures, universities that fail to meet a standard get conditional accreditation and the agency re-evaluates the situation two years later.

Accreditation of initial teacher education programmes

To address challenges that relate to the teacher workforce, many countries have teacher-education specific standards or guidelines instead of, or in addition to, generic programme standards. For example, Australia and some states in the United States have accreditation processes specifically for teacher education programmes, whereas Norway has national guidelines for primary and lower-secondary ITE programmes (Ministry of Education and Research Norway, 2011^[31]; AITSL, 2015^[32]; CAEP, 2016^[33]).

ITE programme standards or guidelines need to be aligned to professional teaching standards, standards for school curriculum and expected student learning outcomes. Key elements can include the programme's organisation, academic content (including subject content, pedagogical studies, teaching practicum), teaching, learning and research (e.g. teaching methods, assessment of students) and institutional partnerships (e.g. with schools). Table 3 shows the teacher-education specific programme standards from Australia.

Table 3. Australian ITE programme standards

	Standards	Illustrative elements of the standard
1	Programme outcomes	Programme design and assessment processes identify where each Graduate Teacher Standard is taught, practised and assessed require pre-service teachers to have successfully completed a final-year teaching performance assessment Providers describe and evaluate the intended outcomes of their programmes
2	Programme development, design and delivery	Programme development, design and delivery are based on a coherent rationale and a coherent and sequenced delivery of programme content including professional experience take account of contemporary and emerging developments in education, curriculum requirements [...] and the perspectives of stakeholders The resourcing for the programme and its teaching and assessment strategies is consistent with the programme's rationale and expected outcomes
3	Programme entry	Providers apply selection criteria for all entrants, which incorporate both academic and non-academic components The programme is designed to address the learning needs of all pre-service teachers admitted Entrants to initial teacher education will possess levels of personal literacy and numeracy broadly equivalent to the top 30% of the population
4	Programme structure and content	Programmes comprise at least two years of full-time equivalent professional studies in education and are structured so that a graduate has undertaken a four-year or longer full-time equivalent programme(s) that leads to a higher education qualification [configurations are specified] Initial teacher education programmes prepare pre-service teachers for the school curriculum and learning areas of their chosen discipline and/or stage of schooling [mandatory content requirements are specified for all levels of education]
5	Professional experience	Formal partnerships are developed and used by providers and schools/sites/ systems to facilitate the delivery of programmes, particularly professional experience for pre-service teachers The professional experience components: include no fewer than 80 days in undergraduate and double-degree teacher education programmes and no fewer than 60 days in graduate-entry programmes consist of supervised and assessed teaching practice undertaken over a substantial and sustained period are as diverse as practicable provide opportunities for pre-service teachers to observe and participate purposefully in a school/site as early as practicable in a programme.
6	Programme evaluation, reporting and improvement	Providers have processes in place for the ongoing collection, analysis and evaluation of data to inform programme improvements and periodic formal evaluation of the programme Evidence of outcomes, including impact, is provided, evaluated and interpreted for the programme at the end of each accreditation period

Source: (AITSL, 2015^[32]). AITSL. Accreditation of Initial Teacher Education Programs: Standards and Procedures.

Accreditation agencies in Kazakhstan have general programme standards, and there are no regulations or guidelines specific to teacher education. The content of programmes is determined by general educational curricula, which are developed based on state standards for higher education. Kazakhstan has moved away from the previously highly prescriptive system, and ITE institutions can now determine 80% of their bachelor's, 85% of master's, and up to 95% of doctoral programmes' curricula. Once a programme is accredited, institutions can regularly update 30% of the actual curriculum and course structure within teacher education programmes. More substantial changes require re-accreditation. While some universities reported doing regular updates, new teachers reported that their teacher education curricula have not yet been aligned to new school curriculum. Similarly, education research institutions, such as the Graduate School of Education of Nazarbayev University, contend that many ITE institutions have not integrated recent research on high priority educational issues (e.g. on multilingualism or inclusive education) in their programmes.

Some programme standards, such as those of the IQAA, make explicit reference to aligning programmes to professional standards. However, close, nationwide alignment between professional teaching standards and teacher education programmes cannot exist without unified programme accreditation that is specific to teacher education.

Appraisal of teacher educator staff

A specific aspect of evaluation is directed to ensuring the quality of teacher education staff, which is a key component of ITE programme quality. Teacher educators need to provide an authentic and coherent role model of teaching to their students. In addition to being knowledgeable and competent in teaching adult students (andragogy), teacher educators also need to know how to develop teacher candidates' pedagogical skills. Therefore, criteria for staff evaluation and career advancement need to include such skills. There has been an improvement in this respect in recent years in a number of OECD countries (OECD, 2019^[27]). Estonia requires all staff in teaching positions to have teaching skills and experience, whereas the Netherlands developed teaching qualifications for academic staff in universities (OECD, 2019^[27]).

In Kazakhstan, universities can decide how they appraise teacher educator staff and what professional learning opportunities they provide. While institutional and programme standards of some quality assurance agencies include focus on the teaching practices of staff, there is no specific mention of what they need to know and be able to do to support teacher candidates.

Certification

Teacher certification serves to ensure that those who enter the profession have the basic competences required for good teaching. In most OECD countries, initial certification requires successful completion of teacher education programmes. However, many OECD countries also require that teacher candidates pass an external certification (or licensing) examination, which can help guarantee that basic minimum standards are met (OECD, 2014^[18]). Such exams usually look at both subject and pedagogical knowledge, and sometimes include more qualitative measures (e.g. interviews, observation or portfolio assessment) to capture motivation and socio-emotional skills.

External certification is particularly important in countries without a unified quality assurance system for ITE providers. It is also often used in countries where teachers are civil servants and this certification guarantees a job. For example, in France certification is directly linked to hiring; while in many countries there are separate hiring procedures. Methods and criteria for selecting teachers for a job can also take into consideration predictors of future teaching performance in a given context. Some countries, such as the Netherlands and Norway, apply “try before buy” strategies through offering internships or teaching assistant positions to those still in training and hiring them following successful certification (OECD, 2019^[34]).

According to the Kazakhstani state standards for higher education, upon successful completion of tertiary ITE teacher candidates receive their bachelor's degree, which is a state-recognised diploma that enables them to enter the profession. Graduation requirements differ across institutions. Some require both passing an examination and a thesis, while in others students can choose from these. Universities reported close to 100% completion rates for those students who get to the final year of ITE. These facts suggest that assessment of teacher candidates during ITE is not particularly rigorous and graduation does not guarantee that newly qualified teachers have demonstrated that they are competent in helping students learn.

After graduation, teacher candidates can choose to pass the National Qualification Test (NQT), an external written examination. This gives them access to a higher teacher category from the start of their career. To

date there is no national examination to guarantee that all graduates meet the standards to obtain certification. However, Kazakhstan is currently planning to introduce a new external certification mechanism. Starting from 2021, all graduates will have to pass certification to be able to start working as teachers. While the exact design is to date unknown, this certification process will include the observation of a lesson by an independent committee. The evaluation is planned to be based on an Observation Sheet that assesses if teachers are able to engage all students in active learning through the use of “modern technologies and innovative teaching methods”.

Supporting early career teachers: induction, probation and mentoring

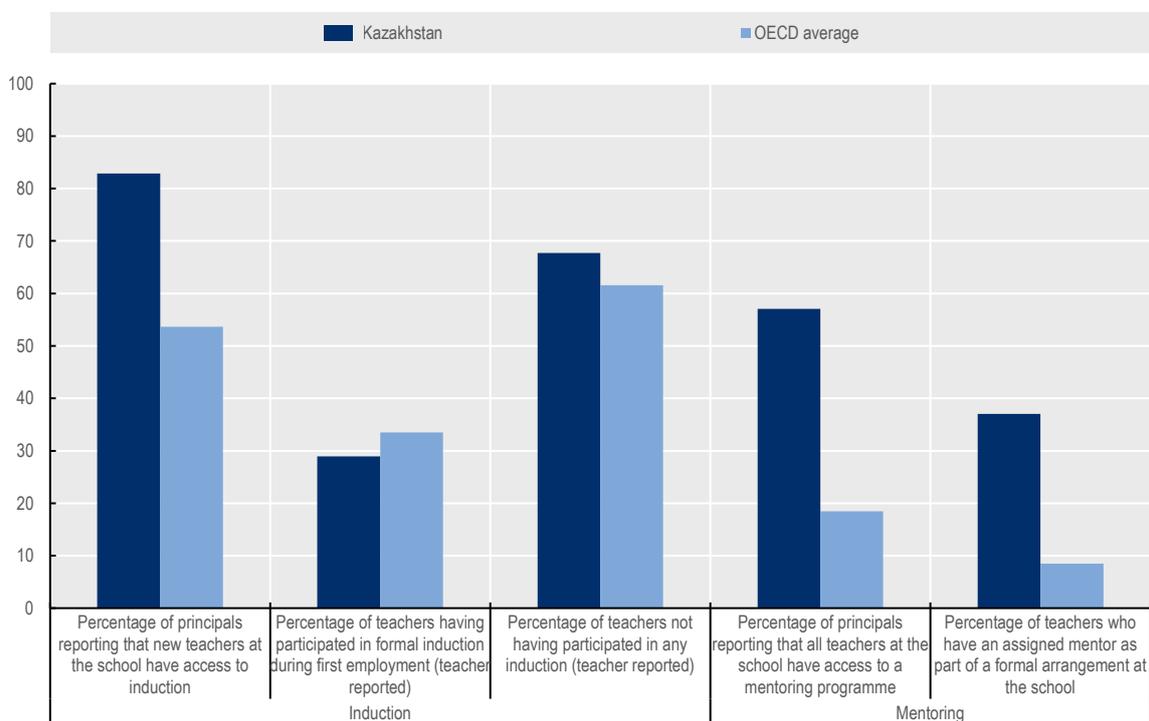
Professional learning and support during the early years of a teacher’s career typically fall within two categories:

- Formal induction programmes: formal, structured programmes designed to support new teachers’ introduction to the teaching profession and to support experienced teachers who are new to a school. Programmes can be developed at the national level, or devolved to lower levels (regional, local or school). These can include formal mentoring programmes (e.g. regular bi-weekly meetings, appraisal and reporting).
- Informal induction: informal induction activities can include peer-learning with other new teachers, or a handbook for new teachers. Mentoring can be an informal activity if there are no fixed frames (i.e. if processes and activities are entirely up to the mentor and mentee).

Effective evaluation mechanisms, such as continuous collective reflection on practice combined with formative evaluation, can help new teachers gradually improve their competences and increase their confidence. Some studies suggest that early years should be considered as a residency – similarly to the medical profession – during which teachers receive support to be able to hone their skills in sheltered environments (Paniagua and Sánchez-Martí, 2018^[35]). To ensure the quality of mentoring, some countries have developed professional standards for mentor teachers (Teaching Schools Council, 2016^[36]; New York State Education Department, n.d.^[37]). Such standards can help motivate mentor teachers to update their knowledge and competences, help confirm that they possess adequate mentoring skills, and can also help set standards for designing mentoring programmes.

Teachers in some countries have a probation period when they first enter their positions, at the end of which the school makes a decision on the new teacher’s contract extension based on their performance evaluation. Such summative probation appraisal requires that new teachers demonstrate their teaching skills before they acquire full certification or get a permanent teaching position. In addition to probation, re-certification and high stakes appraisal are common practices that set a high bar for retention after several years of work experience, rather than just after initial certification (OECD/The World Bank, 2015^[5]).

Figure 6. Early career support in Kazakhstan as reported by school principals and teachers



Source: TALIS 2018 Database

Kazakhstan does not have a nationally defined formal induction programme, though early support systems are strong in schools (see Figure 6). Overall, access to mentoring is almost universal in Kazakhstan, with less than 3% of lower-secondary school principals reporting that no mentoring programme is available at their schools. Any teacher can be appointed as mentor by the school leadership team, however only researcher and master teachers receive a salary supplement for mentoring. Mentoring competences are evaluated through teachers’ portfolios submitted for the attestation process (see appraisal for promotion section below). However, this evaluation is unlikely to be consistent across schools as there are no specific criteria for evaluating mentoring. The extent to which mentors are internally evaluated by school leadership teams varies as well.

Teacher standards and appraisal

Standards are essential to aligning teacher policies as they represent a common reference point that anchors the overall understanding of teacher responsibilities and expected performance (OECD, 2013^[6]). Teacher standards describe what teachers should know and be able to do, including the description of a desirable level of performance (Ingvarson, 2002^[38]). In order to maximise the potential of standards to raise teacher quality, systems need to empower actors to engage with standards and facilitate a constructive dialogue through which teacher education programmes are aligned to standards (Révai, 2018^[39]). Such dialogue should also facilitate the regular revision of standards.

Some countries have one set of core standards for all career or proficiency stages, while others, sometimes called roadmap standards, identify standards for the different stages (Toledo, Révai and Guerriero, 2017^[40]). In Australia these are: Graduate; Proficient; Highly Accomplished and Lead teachers. In Scotland, they include different job families: Standards for Registration; Career-Long Professional Learning; Leadership and Management; Lecturers. Roadmap standards can help:

- articulate what teachers should improve and set out directions for professional learning.
- support the development of career paths by formalising professional roles such as mentoring or research.
- provide a basis for more valid systems for teacher accountability and performance across the career (Kleinhenz and Ingvarson, 2007[41]).

Kazakhstan introduced professional teacher standards in 2017. The standards describe the knowledge and competences required in the various job categories (e.g. primary, secondary, vocational). The main purpose of the professional standards in Kazakhstan is to serve as a basis for developing teacher training and certification. They are not roadmap standards as they do not define the career stages of a teacher.

The different career levels of Kazakhstani teachers are described in the “attestation” procedures, an external performance evaluation that takes place every five years. There is no link between career progression and professional standards at present. Attestation consists of taking the “National Qualification Test” (NQT), which is composed of an assessment of subject content knowledge (70%) and pedagogical knowledge (30%). This latter is mainly about teaching methods and student assessment. The NQT is the same for all teacher categories. The competence levels are reflected in different passing thresholds for each category. Teachers must also submit a portfolio including documentation during the period since the last attestation (or certification) on:

- the progress of students’ performance and students’ special achievements (participation and performance in competitions);
- the quality of teaching (lesson observation sheets) and the teacher’s professional performance (participation and performance in competitions).

The regional education departments are responsible for carrying out the attestation processes, while the National Testing Centre (NTC) conducts the NQT. An expert council examines teachers’ portfolios and draws conclusions. An attestation commission then makes the final decision about teachers’ attestation status based on the test results and the conclusions of the expert council. In general, there is a lot of emphasis on high-performing students (i.e. those who participate and have good results in student competitions such as Olympiads) in teacher appraisal. This is also reflected in the new law on teachers’ status, which rewards teachers who prepared competition-winning students.

Review of the context

Kazakhstan has recognised that teachers are central for excellence and equity in education, and has recently introduced a new law to raise the status of the profession. The quality of teacher education is fundamental to raising the status of the profession. However, current evaluation mechanisms do not ensure that new teachers are equipped with the necessary knowledge and competences to start their careers. In addition, they do not guarantee a coherent learning experience for new teachers from initial teacher education to early career support.

First, there is a lack of systemic, long-term perspective for improving the quality of ITE that links the reform of teacher education to the overarching vision for the teaching profession and schooling. One key obstacle for establishing such a perspective is the lack of information on ITE programmes and quality. Another is a general lack of understanding of what quality teacher education means.

Second, there are concerns that current accreditation mechanisms do not ensure high-quality ITE provision across the country. Programme accreditation is not mandatory and accreditation standards vary for different quality assurance agencies. The lack of teacher-education specific evaluation mechanisms may also result in highly variable practices regarding institutions’ relationship with schools, although such

partnerships are crucial for ensuring coherent professional learning for future and beginning teachers. In addition, requirements of graduate teachers are not clearly defined. These concerns imply that there is no information on the quality of teachers that each of the pathways produce, and there is no guarantee that new teachers have the necessary minimum competences.

Third, there is no structured support for beginning teachers that is accompanied by feedback based on established standards. The new certification plan could establish professional standards for newly qualified teachers, but achieving these standards requires high-quality learning opportunities for all teacher candidates. While schools have widespread mentoring practices for early career teachers, there is no structured induction programme and no clear expectation on what new teachers should achieve as an outcome of early career support. Effective selection into the profession is therefore not ensured.

Last, the appraisal system of those responsible for training new teachers does not ensure a coherent learning experience for early career teachers. There are no consistent standards for teacher educators in ITE institutions and their requirements and opportunities for professional development are unclear. Similarly, school-based mentor teachers' status and professional development needs are not recognised, which can lead to varying quality of mentorship.

The recommendations below provide suggestions about how Kazakhstan can better ensure the quality of ITE and provide coherent learning experiences for future and new teachers.

Recommendation 1. Develop a long-term strategy for ensuring the quality of initial teacher education (ITE) and make it a driver of educational change

Effectively implementing Kazakhstan's ambitious educational reforms and tackling large inequities in student outcomes requires a competent teacher workforce. This in turn calls for high-quality teacher education across the country. Yet, in Kazakhstan, the teacher education landscape is fragmented. The high number of initial teacher education (ITE) institutions, the diverse pathways into teaching and a paucity of data result in a general lack of understanding of the quality of ITE in the country. Addressing these issues is not possible without a clear vision and a long-term strategy to improve the quality of ITE.

1.1. Develop a vision and a strategy for quality initial teacher education and make this a central element of Kazakhstan's new education strategy

Evidence

Increasing the quality of teacher learning with ITE as a first milestone in a continuous professional learning process requires strategic thinking (OECD, 2019^[23]). A strategy first needs a vision for initial teacher education shared among all key stakeholders and an agreement on the key dimensions of quality. It also needs clearly defined requirements for ITE graduates in terms of knowledge and competences and for ITE programmes in terms of outcomes, content, structure and entry criteria (see also the section on Programme accreditation and standards). These various requirements need to be well-aligned to ensure coherence. Implementing a strategic approach also requires data on teacher demand and supply to inform decisions on entry requirements and the consolidation of ITE provision.

While Kazakhstan has been investing considerably in preparing teachers for the competence-based shift, these efforts seem to have been targeting almost uniquely the continuous professional development of in-service teachers. The new reforms were developed by NIS schools and the Y. Altynsarin National Academy of Education (NAE), and the new curriculum and methods (e.g. criteria-based assessment) were scaled through school networks and professional development centres, namely the NIS Centre of Excellence (CoE) and Orleu. In contrast, the role of ITE in new reforms has been marginal, with only some

ITE institutions present as observers. ITE institutions had little (almost no) role in developing the new school curriculum and pedagogical approaches.

Kazakhstan has recently engaged in promising reforms with regards to teacher education, including introducing more selective criteria for entry into ITE, raising institutional autonomy and plans for a new certification scheme. However, several elements are lacking and, without them, it is hard to know what the country expects from ITE and how to strategically raise its quality. There are no unified standards for graduates and for ITE programmes. Institutions have high autonomy without mandatory quality assurance procedures, meaning that there is no measure of the quality of newly qualified teachers. What information and data that are available about the quality ITE is limited and fragmented.

Recommended actions

To develop a vision and a strategy for quality ITE, the OECD recommends Kazakhstan:

1. Identify key stakeholders who should be involved in developing a shared vision and strategy for ITE.

In order that key stakeholders have ownership over reforms, the process of developing a vision and strategy needs to be inclusive (Viennet and Pont, 2017^[42]). In particular, it should include representatives of ITE providers (both universities and teacher colleges), schools (school leaders, teachers, unions), quality assurance agencies (those that accredit ITE programmes), professional development centres (Orleu, Nazarbayev Intellectual Schools Centre of Excellence), experts (education researchers, representatives of teacher attestation committees, local authorities' methodological cabinets) and agencies that have data on teachers and teacher educations (IAC).

2. Designate a leading committee and task them with developing a shared vision engaging all key stakeholders.

The vision should be a short document that considers teacher education as a continuum and sees ITE as a central initial step. The vision statement serves as a foundation for communicating changes in teachers' status, legitimate new entry and graduation requirements, and help justify the consolidation of ITE provision. Actively engaging stakeholders in the process of developing the vision, for example through workshops and consultations, is key to making sure that this becomes a shared vision that all stakeholders will be committed to work towards. The vision statement should clearly communicate:

- the ultimate purpose of ITE institutions and programmes such as developing competent and confident teacher candidates
- the process of achieving this purpose, such as equipping teacher candidates with the necessary knowledge, skills and confidence
- the additional roles of ITE: realising education priorities, functioning as a driver of change in education, being able to identify and address present challenges and prepare for future ones.

3. Establish a state of play of the current situation

In order to develop the course of action in the strategy, a thorough understanding of the current situation is necessary. This understanding can be used to identify strengths, weaknesses, opportunities, threats (SWOT) in the current system. Forming this understanding requires:

- reviewing relevant reports and literature (e.g. OECD, World Bank and other national and international reports produced for Kazakhstan)
- collecting available information and data on the teacher education system and teacher workforce in Kazakhstan including demographic trends of teachers and students
- having a clear sense of the funds available (in collaboration with the Ministry of Finance).

4. Develop a long-term strategy

The leading committee should then develop a long-term strategy based on this state of play and the vision to improve the quality of initial teacher education. The strategy needs to focus on long-term systemic goals, such as providing an equitable ITE system by reducing the gaps in quality of ITE across the country and ensuring that highly competent graduates are hired in schools, especially in challenging areas. The vision and long-term strategy should be integrated into strategic documents such as the State Programme for the Development of Education and Science and the law on teachers' status.

Furthermore, the strategy needs to clearly define features of quality ITE based on international research and in line with Kazakhstan's education strategy and context. It should consider the actions to be taken, timelines and the roles and responsibilities of the different stakeholders, in particular in developing the following elements:

ITE provision

- Approach to the consolidation of ITE provision with regards to the number and type of programmes and pathways.

Kazakhstan should carefully consider various approaches to consolidating ITE provision, including reducing the number of ITE providers through closing ITE programmes, creating a network of ITE providers in which high-quality providers would lead the collective development and potentially shared provision of programmes by member institutions, or a combination of these approaches. In addition, the consolidation plan should include the timeline and approach to progressively discontinuing post-secondary, non-tertiary tracks, developing pedagogical master's programmes to introduce consecutive ITE programmes, and further developing alternative pathways.

- Guidelines for ITE providers to design and develop their programmes in line with programme accreditation standards
- Approach to determining entry requirements to ITE programmes in line with supply-demand data
- Approach to the allocation of grants, scholarships

Requirements for ITE graduates and programmes

- A roadmap that defines standards for the different stages in the career starting with graduate standards
- Standards for teacher educators including university and college staff as well as school-based mentors (see Recommendation 4.2)
- Criteria for certification (see Recommendation 3.2)
- Programme accreditation process in all its dimensions (standards, capacity and procedures). Define the phases of its introduction and the consequences (regular reporting, reapplying for accreditation, potentially closing programmes) (see Recommendation 2.1 and 2.2).

1.2. Create a data strategy and support the collection and use of ITE programme data across the system

Evidence

The effective collection and use of data by stakeholders can support the continuous improvement of teacher education, and thus contribute to raising its quality. Countries use various mechanisms to support the collection and use of data, including national data strategies, accountability mechanisms that require the publication of programme effectiveness data, and candidate performance assessments (OECD,

2019^[23]). CentERdata in the Netherlands developed a tool (Planmirror) that provides insight into the future labour market for teachers and future development of costs for (groups of) institutions, school boards and regional education units (CentERdata, n.d.^[43]). Information about expected attrition, substitution supply and job openings are included. Planmirror can also perform scenario analyses, for example, to view the effects of changing student estimates and student-teacher ratios per school (<http://www.planmirror.nl/>). In Australia, work is underway on the Australian Teacher Workforce Data (ATWD) collection, which will link ITE data and teacher workforce data from across the country to provide a national picture of the entire teacher workforce to assist in future workforce planning and policy development (AITSL, 2017^[44]).

The Information Analytic Centre of Kazakhstan has been developing a data system (the National Education Database) that includes extensive data on its whole education system. However, some data on ITE is still lacking. This is partly because of the poor definition of what constitutes quality teacher education and schooling (see also policy perspective on school evaluation). For example, the ITE quality data collected through accreditation procedures is not aggregated and is not shared across the agencies. Moreover, Kazakhstan has not yet developed a clear notion of how to use this data strategically to raise the quality of teacher education. As a result, it is difficult, if not impossible, to identify areas, institutions or programmes where improvement is needed, to define how selective ITE institutions can become, and how many teachers they would need to train.

Recommended actions

To ensure that data is available and can usefully inform teacher education policies, the OECD recommends the following:

1. Identify indicators that could constitute the basis for appropriate evidence to inform the system on ITE quality.

There is a wide range of data that can serve quality improvement, including input and process measures, such as the number of enrolments in ITE programmes, number of courses offered by the university, as well as output measures, such as certification results, employment outcomes, and candidate and principal feedback surveys (OECD, 2019^[23]). Indicators should be identified to monitor progress toward the vision for ITE and in line with the strategy. In order to make informed decisions on ITE provision and quality (e.g., how many ITE programmes and places are needed per subject and oblast/rayon, how to determine the entry and certification requirements), ITE data needs to be interpreted in light of trends in student demographics and the teacher workforce.

2. Establish data collection and analysis mechanisms.

A first step is to map what data is already available in the system. For example, ITE institutions collect data on enrolment, dropout, completion, teacher candidates' results, quality assurance agencies have data on accreditation, and agencies such as the IAC also collect various data about the system (see policy perspective on system evaluation). Available data should then be mapped against identified indicators to define what is still lacking. Procedures to guarantee the quality (reliability, validity and comparability) of data also need to be put in place. Given its considerable expertise in data collection, management and analysis, the IAC would be a suitable agency to serve as a centre that defines such mechanisms and procedures, supports the various stakeholders in these, collects (aggregates), stores and analyses data.

3. Establish a strategy for the analysis and use of data to improve the ITE system.

Data accessibility, but also privacy and security, are crucial for well-functioning data systems. It is important that regular analysis is carried out by a competent agency (e.g. the IAC) to inform key policy decisions in the system. However, it is also fundamental that stakeholders (e.g. ITE institutions, schools, students) are incentivised to use the data. User friendly tools for data visualisation and analysis can facilitate widespread use. The strategy for data use should be established in line with the strategy for quality ITE, and identify

how the different stakeholders can use data to inform selection and entry into ITE, improve ITE programmes and support schools in hiring the right teachers for their needs.

Recommendation 2. Create a coherent quality assurance system for initial teacher education and consolidate provision

In parallel with increasing the level of autonomy of higher education institutions, Kazakhstan has also developed quality monitoring and assurance procedures. However, although accreditation mechanisms exist, the current approach does not yet provide a reliable picture of teacher education quality and does not raise the standards of teacher education across the country. This means that not all teacher candidates have access to a comprehensive and balanced ITE curriculum with sufficient opportunities to learn and connect theory and practice.

2.1. Introduce specific standards for teacher education programme accreditation that ensure a coherent and updated ITE programme in all institutions

Evidence

While generic programme standards apply for teacher education programmes, it is fundamental that accreditation addresses teacher education specific issues as well. Such issues include regularly aligning ITE programmes to school curriculum, regularly integrating new research on teaching and learning, ensuring the right balance and connections between theoretical knowledge and practical skills (coherence), making sure that the programme prepares candidates to meet professional teaching standards, and establishing deep partnerships between ITE institutions and schools (OECD, 2019^[23]).

The standards for programme accreditation in Kazakhstan are general for all higher education institution programmes, and do not relate specifically to teacher education (IQAA, 2019^[45]; IAAR, 2017^[46]). These general programme standards (specifically IQAA and IAAR's) cover the main quality features of higher education programmes according to international standards and constitute a strong basis for monitoring and ensuring quality programmes. While these standards require higher education institutions to provide relevant and regularly updated programmes, they are not specific enough to tackle key challenges in education, such as aligning ITE programmes to school curriculum, or making sure that the set of courses actually prepare teacher candidates to meet the professional teaching standards. The interpretation and application of generic standards for teacher education depends on the expert committees conducting the accreditation, and therefore is contingent on the quality assurance agency's procedures and capacity, which are not uniform across all agencies.

While some ITE institutions in Kazakhstan try to keep up with recent reforms, this is not the case for all. Several teachers, school leaders and researchers report a misalignment between teacher education and school curriculum, which leads to inadequate preparation of teacher candidates in areas such as competence-based teaching. Moreover, teaching practicum is often insufficient with varying duration across types of programmes and institutions. Kazakhstan regulates field experience within the State Compulsory Standard in Higher Education, but this relates to any kind of field experience (e.g. military service) and there is no specific regulation for ITE teaching practice. This regulation sets a maximum, but not minimum, number of credits for field experience in universities (34 ECTS), contrary to all other countries where there is a minimum number, usually specifically for ITE (OECD, 2019^[34]). In several countries, such as Austria, Estonia and Portugal, this minimum is close to or exceeds the current maximum in Kazakhstan.

ITE institutions in Kazakhstan have recognised the importance of creating contact with schools. Based on the OECD review team's interviews, ITE institutions and schools collaborate in the placement of teacher

candidates for practicum and the recruitment of newly qualified teachers. Some institutions seek feedback from schools on how to strengthen their programmes, and also offer workshops and seminars to teachers. However, these collaborations are mostly ad-hoc, and are rarely deep partnerships that support long-term programme improvement.

To ensure effective practicum, it is fundamental that placement schools have the capacity to provide future teachers with appropriate support, such as mentoring tailored to the particular context (OECD, 2019^[23]). However, in Kazakhstan, there is no strategic approach to develop the capacity of schools that provide practicum placements to deliver this kind of support. The selection of practicum schools is at the discretion of the ITE institution (Government of Kazakhstan, 2007^[47]). There is no “practicum school network” comprised of diverse schools that are prepared to help teacher candidates practice in settings that are likely to reflect their future employment conditions.

Recommended actions

To assure that ITE provision across the country is high quality, the OECD recommends that Kazakhstan:

1. Develop teacher education specific programme standards for accrediting ITE programmes

Similarly to the vision and strategy (Recommendation 1.1) the development of the programme standards for ITE should be an inclusive process that involves ITE actors, the key accreditation agencies and other relevant stakeholders. International examples, such as the Australian (Table 3) and United States standards, can be used to inform the development. The following should be key dimensions of programme standards:

Programme content: Make ITE programmes coherent and updated

The standards should require ITE programmes to:

- Prepare teachers who know the subject they teach and are also equipped with pedagogical knowledge and competences to deliver the curriculum and effectively develop students’ competences.
- Demonstrate how the programme is linked to national curriculum standards and professional teacher standards.
- Provide opportunities for teacher candidates to link their theoretical knowledge to practice.
- Provide teacher candidates with sufficient and well-designed field experience. Kazakhstan should consider setting a minimum duration for teaching practicum and draw on teacher colleges’ experience and practice in terms of offering various types of field experiences that build practical competences gradually (from guided lesson observations, teaching assistance to more autonomous teaching practice).

Programme outcomes

The programme standards should require ITE programmes to:

- Assess teacher candidates continuously and comprehensively, including their theoretical knowledge, practical competences and their ability to link theory to practice (see Recommendation 3.1). Demonstrate how teacher candidates’ continuous assessment is linked to professional teacher standards.
- Set clear criteria for graduation. Demonstrate how these criteria and corresponding assessment practices ensure that graduates meet the graduate teaching standards once Kazakhstan has revised its standards into a roadmap.

Partnerships with schools: ITE institutions should build strategic partnerships with schools

Establishing strategic partnerships between teacher education institutions and schools should be part of the ITE programme standards, and can also be built in the school evaluation framework (see policy perspective on school evaluation). In particular, ITE institutions should be required to:

- Have a clear approach to selecting schools for practicum placement (preferably involving a diverse set of schools including both urban and rural schools).
- Develop their partner schools' capacity to provide appropriate support to teacher candidates.
- Collectively develop a partnership framework with partner schools.
- Establish strong collaboration between university-based supervisors and school-based mentors during teaching practicum: develop and document a common approach (criteria and mechanisms) to appraising and supporting teacher candidates; set up regular meetings to identify areas for development and agree on forms of support.

In addition, ITE institutions can be encouraged to:

- Build communication channels through which schools can provide feedback to universities on their programmes. Good practices that exist already in Kazakhstan should be mapped and leveraged.
- Involve partner schools in developing and updating ITE programmes, for example with the contribution of high category teachers such as researcher or master teachers.

Innovation and self-improvement

Make sure that accreditation not only assures quality but also incentivises innovation and continuous improvement. Consider including the following in the programme standards:

- **Mandatory self-evaluation mechanisms:** Accreditation should monitor how these mechanisms are used for continuous improvement. Existing good practice in Kazakhstan can be leveraged. For example, the IQAA Standards explicitly require internal quality monitoring mechanisms to incentivise improvement.
 - **Staff appraisal:** require a systematic monitoring and evaluation of teacher educators' competences against their professional standards (see Recommendation 4.2). Staff appraisal can serve to identify professional development needs and set development objectives for the future. Analysing aggregate evaluation results can also inform the institution on collective strengths, weaknesses and opportunities, and can feed into institutional development strategies.
 - **Encourage partnerships with education research institutions** to ensure a continuous flow of education research into ITE programmes. While increasingly more research is available in Kazakhstan on areas highly relevant to the country's educational priorities – such as multilingualism, inclusive education, STEM education – this knowledge is rarely integrated into ITE programmes. To remedy this situation, ITE institutions should develop frameworks of collaboration with education research centres. There are already existing practices that can serve as examples (e.g., the joint research between the Graduate School of Education in Nazarbayev University and Ualikhanov Kokshetau State University).
 - **Incentives** can include rewards for ITE programmes that excel in innovation and self-improvement. For example, an outstanding rating could imply access to funds for taking on leading roles among ITE institutions (see Recommendation 2.3).
2. Develop guidelines for teacher education institutions to help them meet programme standards.

Kazakhstan should develop guidelines for ITE institutions to help them meet the programme standards. The guidelines should include samples of ITE programme frameworks and promising practices from Kazakhstan and other countries. As an example, the United Kingdom' government developed criteria and supporting advice for ITE institutions (UK Department for Education, 2020^[48]), as well as core content framework for ITE programmes (UK Department for Education, 2019^[49]).

2.2. Establish a unified and mandatory accreditation system for ITE institutions

Evidence

A coherent accreditation system that applies to all ITE providers helps ensure that graduates from teacher education meet the standards of a beginning professional. This is particularly important in a country with a high number of institutions and an inequitable distribution of well-prepared teachers across schools.

Accreditation in Kazakhstan is voluntary, though most higher education institutions pursue it. A strong incentive for public universities to go through accreditation is that state grants are tied to it. A further incentive for all institutions is to increase their prestige. The situation is different for vocational institutions. An earlier state benchmark of accrediting 70% of vocational institutions by 2019 was revisited and accreditation is now fully voluntary, which leaves almost no incentives for vocational institutions. According to the National Education Database, 44% of the vocational colleges that provide ITE programmes were accredited by 2020. While discontinuing the vocational route to teaching would resolve this issue, it will be necessary to ensure the quality of alternative pathways into teaching currently being developed in Kazakhstan (Government of Kazakhstan, 2019^[16]).

Accreditation standards differ across agencies. While some agencies have well-developed standards and procedures, the fact that these differ implies that there is no agreed measure of quality. In addition, a lack of unified standards mean that no comparable data is available on the quality of ITE programmes.

A further concern is the unequal capacity of agencies to carry out quality assurance appropriately. While some agencies in Kazakhstan have high standards for their accreditation experts, involving thorough training, well-developed manuals and an expert certification process (e.g., IQAA, IAAR), the OECD review team's interviews with some stakeholders suggest that not all agencies' staff receive appropriate training. In addition, the procedures differ between agencies based on their capacity. For example, the IQAA involves a foreign expert in its accreditation committee, which can contribute to the validity of the measure, but also increases the cost of the procedure. On the other hand, accreditation (in particular that of vocational institutions) carried out by the Quality Control Committee often involves experts from the same school district (rayon) as the institution itself, which questions the objectivity of the procedure.

Box 2. Accreditation of initial teacher education programmes in Australia

Context

In Australia, teacher education institutions must comply with general higher education institutional regulations and ITE-specific programme regulations. The new ITE programme accreditation standards and procedures, introduced in 2015, are designed to ensure that all graduates of ITE programmes meet the Australian Professional Standards for Teachers at the Graduate career stage. The Graduate Teacher Standards, the Programme Standards and the Accreditation Procedures comprise the accreditation system that all states and territories must adopt.

How does accreditation work?

The Programme Standards set out specific requirements with respect to the programme's outcomes, development, design and delivery, entry, structure and content, professional experience, evaluation, reporting and improvement. A key focus of the new standards is on the assessment of the impact of the programmes. The impact is demonstrated based on two main sources: evidence collected from within a programme in relation to a pre-service teacher's performance, and evidence collected following the completion of a programme in relation to the achievements of a programme's graduates. Eight principles inform the design of the new standards and procedures: impact, evidence-based, rigour, continuous improvement, flexibility, diversity and innovation, partnerships, transparency, research.

The accreditation system comprises two accreditation stages and also incorporates annual reporting.

- *Accreditation stage one* applies to new programmes: providers demonstrate how the proposed programme meets the programme standards, map where in the programme the Graduate Teacher Standards are taught, practised and assessed, and provide a plan for demonstrating impact.
- *Accreditation stage two* is for existing programmes: the provider presents the evidence they have collected on programme impact in relation to the pre-service and graduate teacher outcome measures. Accreditation stage two follows a period determined at the time of accreditation stage one, not exceeding five years.
- *Annual reporting*: Accredited programmes report to their authority on data identified in the plan for demonstrating impact, changes to the programme, nationally required data to contribute to national and/or jurisdictional collections, and additional data/information requested by the accrediting authority.

Accreditation panel members and chairs are required to undertake national training – and to complete a national refresher training every two years. Each panel is required to have a member from outside the accrediting jurisdiction to promote national consistency in decision-making (AITSL, 2015^[32]).

Why is it a promising practice?

New accreditation standards and procedures provide opportunities regarding:

- Raising the overall quality of individual programmes
- Strengthening specific aspects of all programmes
- Buy-in from stakeholders.

Source: (OECD, 2019^[22])

Recommended actions

The OECD recommends Kazakhstan to:

1. Consolidate ITE programme accreditation and make it mandatory and regular for all ITE providers.

There are several quality assurance agencies in Kazakhstan that have well-developed standards and procedures that conform to European Higher Education Area (EHEA) requirements. A first step in consolidating quality monitoring is making ITE programme accreditation consistent. All agencies accrediting ITE programmes should use the new standards (Recommendation 2.1), and should align their accreditation procedures. In the long term, allocating ITE programme accreditation to one agency is preferred to ensure complete consistency. The leading committee responsible for developing a vision and strategy (see Recommendation 1.1) could conduct preliminary research. This should include collecting

data on the proportion of ITE providers accredited by each agency, number and cost of accreditations, and reviewing existing agencies' standards, procedures and capacity. Based on this research, the leading committee should recommend mandating the accreditation of ITE programmes to one of the existing agencies or make a plan for merging divisions responsible for ITE programmes of several agencies.

2. Define a unified procedure drawing on current practices.

All agencies accrediting ITE programmes should ensure that the accreditation procedure is able to provide an objective, valid and reliable judgement that is in line with the vision and the indicators defined (see Recommendation 1.). Procedures should set out the stages and process for accreditation (see Box 2 as an example for this in Australia), define clear evaluation criteria, as well as set out consequences for grading.

Both sanction and support measures need to be given for low evaluation results. For high-performing programmes various types of rewards can be envisaged such as less frequent accreditation, or more flexibility for innovation. Kazakhstan should also determine short and long term timelines for accrediting programmes.

3. Ensure that agencies have appropriate resources and build their capacity.

The Ministry needs to ensure that all agencies have sufficient resources to fulfil their mandate. All officials must be well-trained, work towards the vision and in line with the strategy for teacher education. They also need to be aware of the main challenges and have expertise in quality assurance. Guidelines and training for accreditation officials and experts can draw on existing good practices in some current agencies.

Recommendation 3. Strengthen the pedagogical knowledge and competences of newly qualified teachers through appraisal, induction and certification

An appraisal system of teachers as they progress through ITE, graduation, induction and certification is necessary to provide beginning teachers with a coherent learning experience and verify that fully certified teachers have a solid knowledge base and well-developed practical competences. However, in Kazakhstan, appraisal and support mechanisms are not co-ordinated and aligned. The OECD recommends reviewing these mechanisms to strengthen teacher candidates' knowledge and competences and ensure that only well-prepared and competent candidates become teachers.

3.1. Co-ordinate the appraisal and support of teacher candidates across the theoretical and practical parts of their study

Evidence

There are several tools that can ensure that all teachers have the appropriate knowledge and competences by the end of their studies and after their first few years of experience. These include graduate teacher standards, ITE-specific programme standards and guidelines on approaches and criteria for appraising teacher candidates, common ITE graduation criteria and objective external certification. Deep partnerships between ITE institutions and schools are also essential to build capacity and foster feedback mechanisms. In particular, collaboration between teacher candidates' ITE-based supervisor and school-based mentor during teaching practicum is critical to providing coherent feedback and support to teacher candidates and helping them link theory and teaching practice.

Kazakhstan has been introducing fundamental new expectations for the teaching profession recently, both in terms of required competences and teaching practices and ongoing development. However, to date new competence requirements have not been codified into graduate teacher standards that could guide the

appraisal of teacher candidates. There are also no ITE-specific programme standards and guidelines regarding appraising teacher candidates, and graduation criteria differ across institutions.

In addition, ITE institutions and schools do not collectively reflect on developing teachers. School-based mentors and university-based supervisors do not or rarely design, discuss and evaluate teacher candidates' practicum together. The OECD review team's interviews suggest that while several universities sign a contract with schools regarding practicum, in practice, there is often little communication between the supervisor and the mentor, and they do not have a common approach and criteria to appraising teacher candidates. In addition, many beginning teachers and school leaders perceive a gap between ITE and school curriculum. New teachers often learn about competence-based teaching or criteria-based assessment only on the job. Schools also report that new teachers graduating from universities and not teacher colleges lack practical experience and skills.

Recommended actions

To verify that ITE programmes prepare teacher candidates with the necessary knowledge and skills, the OECD recommends the following:

1. Develop graduate standards as part of a roadmap approach

Developing a clear set of criteria, including required knowledge and competences that teachers should have to become fully qualified, would help Kazakhstan align its different reform initiatives. Such graduate standards – as the first step in a roadmap approach – could also provide clear guidance for developing ITE programmes, a framework for appraising teacher candidates that both ITE institutions and schools could use. These standards should serve as a basis for both graduation requirements and certification. Graduates should demonstrate that they have acquired all theoretical knowledge and most practical skills, while certification would correspond to meeting all the standards.

The graduate standards should also be used to inform the development and revision of ITE programmes. As part of meeting the accreditation programme standards (see Recommendation 2.1), institutions should make sure that their ITE programme – including selection policies, course content, assessment practices and requirements – is sufficiently preparing candidates to meet the graduate standards. Making ITE more rigorous through such an alignment can raise the status of ITE programmes and that of the teaching profession in general.

The best way to ensure a robust and updated knowledge base for the teaching profession is empowering relevant stakeholders to engage in a process of reflection on teachers' knowledge and competences (Révai, 2018^[39]). Developing or revising standards is a great opportunity to do this, and reflect at the same time on the various documents, such as current teaching standards, ITE quality strategy and programme accreditation standards. Stakeholders should therefore include teachers, school leaders (including but not restricted to NIS schools and the leading school network), teacher educators, and representatives of quality assurance and control agencies (IQAA, Quality Control Committee) at a minimum. To keep up with emerging evidence, reforms and changing expectations, it is important that the standards are regularly revised, and a clear timeline and process should be set out for this.

2. Use the graduate standards as a tool to coordinate appraisal and make graduation requirements more rigorous

The standards should be used as a basis for appraising teacher candidates during ITE, including coursework and teaching practicum both for formative and summative appraisal. Teacher educators in ITE institutions and school-based mentors should use them for formative purposes together with the teacher candidate to reflect on their progress and identify areas for improvement. Graduation requirements should be made more rigorous to make sure that only competent beginning teachers enter schools as trainees. Summative evaluation of teacher candidates at graduation should therefore:

- reflect classroom teaching practice including planning, teaching, assessing and reflecting on practice
- be a valid assessment that clearly assesses the content of the graduate standards
- have clear, quantifiable and justifiable criteria to measure whether (and to what extent) the competences set out in the graduate standards have been acquired
- be a reliable assessment in which there are appropriate processes in place for ensuring consistent scoring between assessors
- include moderation processes that support consistent decision-making against the achievement criteria (adapted from the Australian Programme standards (AITSL, 2015_[32])).

3.2. Introduce mandatory induction

Evidence

Structured induction programmes with appropriate continuous support help give new teachers sufficient opportunities to consolidate their professional competences and gain confidence. Mentoring is already widespread in Kazakhstani schools and in many schools extends to several years. However, beginning teachers have full-time employment from the first year, which can be very demanding as they still need more time to plan lessons and to reflect on their practice with their mentor's help. In addition, many of them work in challenging environments (e.g. in schools with high proportions of disadvantaged students) where adapting to the context can be more difficult.

Recommended actions

The OECD recommends to:

1. Introduce a mandatory induction period of one year

Induction means a period during which the new teachers receive structured support. The broad frames of the induction programme should be defined at the national level, while it is good practice to leave sufficient room for implementation to the regional and local levels so that adaptation to local needs is possible. The methodological cabinets in the Departments for Education within local akimats would be well-placed to implement induction programmes locally (see also policy perspective on school evaluation). The broad frames should include the total number of hours, tasks and responsibilities of mentors and the school leadership team, forms of induction, such as in-school and off-site learning (see example on induction in Japan in Box 3).

Kazakhstan should build on already existing mentoring practices, but should allocate more resources on induction. In particular, new teachers in induction should have reduced teaching hours to allow sufficient time for planning, reflection and competence development. Mentors' time and expertise should also be recognised (see Recommendation 4.1). It is important that high-quality mentorship is accessible for teachers teaching in rural areas, small class, ungraded schools. As these schools might not have the necessary capacity to offer this (for example, due to the lack of high category teachers), mentorship could be shared across several schools. This can be realised in a blended format: mentors can offer online coaching and reflection sessions to beginning teachers, with occasional face-to-face site visits to mutually observe lessons.

Box 3. Induction in Japan

Context

Regulations in Japan require the regional Boards of Education (BOEs) to provide new teachers with induction training in the first year of their appointment. New teachers are placed under a conditional employment status during their first year, and BOEs are also mandated to evaluate new teachers before removing their conditional status. The Ministry of Education, Culture, Sports, Science and Technology (MEXT) provides guidelines to support Boards of Education in the 47 prefectures to develop induction programmes (MEXT, 2014^[50]). BOEs can decide on the delivery and contents of induction programmes. They also prepare detailed induction guidebook for schools.

Key elements of induction

The MEXT Guidelines set out the following key elements:

Mentoring

Tasks and responsibilities of the “guidance teacher” (main mentor); subject specialist teacher (if the guidance teacher has a different subject specialisation from the new teacher); school principal.

Broad programme frames

Three-hundred hours of training in total consisting of:

- *In-school training* (120 hours in total) includes consultation, demonstration and observation sessions with the guidance and subject-specific teachers. Lessons are often preceded or followed by detailed discussions of lesson plans, instructional technique, and successes or challenges.
- *Off-site training* (25 days in total) is typically offered by the Centre for Education in each prefecture. Activities typically consists of
 - Theoretical and practical courses, including a 5-day residential training
 - Occupational experience (in the social service and/or business sectors, visiting schools in other regions and of special profiles)
 - Volunteer activities

In many prefectures, BOEs have extended the duration of teacher induction trainings beyond one year.

Why is this a promising practice?

- Induction is mandated by law, while Boards of Education can adapt content to suit local needs.
- Induction is extensively implemented and well-documented by BOEs.
- Promotes a culture of (co-ordinated) collaboration in the school to support new teachers.

Source: (OECD, 2019^[51]). OECD. Mandatory 1-year Induction for New Teachers in Japan. <http://www.oecdteacherready.org/promising-practice/mandatory-1-year-induction-for-new-teachers-in-japan/> (accessed 13 February 2020).

2. Build a professional learning community to provide early career support for an extended period.

Many schools in Kazakhstan continue to offer mentoring during the early career years. To ensure a smooth transition from ITE to becoming a fully autonomous teacher, teachers need support for a longer period than just one year. Similarly to induction, local methodological centres could help schools develop a

structured plan for supporting early career teachers for three to five years. This can involve developing a professional learning community (possibly across schools) consisting of both early career and experienced teachers that would engage in collective reflection and enquiry, provide each other peer-support. A good example of this practice is South Korea, where some provinces have developed professional learning communities and study groups for early career teachers (OECD, 2018^[52]).

3. Develop guidelines for implementing induction and early career support

Guidelines would help the responsible body (e.g. methodological cabinets) and the schools to implement induction in the best possible way. They should include guidance on how mentors can appraise new teachers based on the graduate standards and demonstration of good practices.

3.3. Make the new teacher certification mechanism a tool to ensure quality

Evidence

External certification (or licensing) can serve as a useful tool to ensure that all ITE graduates meet the standards required from newly qualified teachers. If certification follows the induction programme, new teachers will be better prepared to pass it successfully, and at the same time it will also better serve as a tool to select high-quality teachers. In this case, the induction year would correspond to a probation period for new teachers. In Kazakhstan, probation does not exist in all schools, and even where it does it rarely functions as a real selection mechanism. However, Kazakhstan is planning to introduce external certification, which could be used as tool for selection. An external certification mechanism can in the short and medium term compensate for a lack of unified graduation requirements and rigorous ITE assessment practices across the country. In the long term, certification will usefully complement ITE graduation by providing a point of assessment and selection tool after trainee teachers have gained sufficient professional experience. In the long term, once ITE quality and graduation requirements are consistently high across the country, certification will not need to be determined externally, and can be determined by the school leader. School leaders will then need appropriate capacity building to perform this function.

Recommended actions

1. Make certification a tool for quality monitoring and selection.

Once the graduate standards are developed, design the process of certification in a way that it provides an objective and reliable way of measuring new teachers against the set competences. Certification should follow the induction period and be used as a final selection mechanism. It can include a test that assesses how teachers have consolidated their knowledge base throughout initial training and induction. Existing testing agencies and experts such as the NTC have experience in developing sophisticated tests. Certification should also include a qualitative element based on observations and review of a teacher's portfolio. This element should assess teachers' capacity to apply their knowledge in practice and make professional judgements that facilitate student learning. This component also needs to be a rigorous and valid assessment that builds on evidence of the teachers' competence rather than just a set of activities accomplished (e.g. not just the number of lessons taught or number of mentoring sessions or courses followed).

When developing the certification procedure, Kazakhstan should consider what happens when a new teacher fails to meet the standards. In some countries (e.g. Morocco) the new teacher receives a second opportunity a year later. In a context such as Kazakhstan's, where some schools struggle to fill certain positions, allowing new teachers to continue to teach and at the same time prepare for a second opportunity can be necessary to ensure that all students have access to teachers. However, a "grace period" that is too long might dis-incentivise teachers from seeking certification and impact the overall

quality of teaching. Kazakhstan should consider these trade-offs when determining its strategy. It is important to keep in mind that the ultimate objective is to certify all teachers, which means that new teachers and teachers in a grace period should receive substantial and adequate support (tailored induction and mentoring) to succeed.

2. Strategically collect and use certification data to drive systemic improvement.

Make results available for ITE institutions, local akimats and schools, and incentivise them to analyse data to improve their ITE and induction programmes respectively. This can be built in programme accreditation standards for ITE institutions (see Recommendation 2). However, publishing the results is not recommended, as it can create a competitive environment among ITE institutions and put collaboration and partnerships at risk.

Recommendation 4. Recognise teacher educators and mentor teachers as a profession: define standards and introduce appraisal mechanisms for them

The OECD team observed a strong collegial culture among teachers in Kazakhstan characterised by trust and a development- and support-centred attitude in general. However, there is a lack of systematic capacity building of both ITE-based teacher educators and school-based mentors, which puts the effective preparation of future and new teachers at risk. The OECD recommends Kazakhstan to better recognise teacher educators and mentors and introduce formative appraisal mechanisms for them.

4.1. Recognise ITE-based teacher educators' and school-based mentors' status

Evidence

The central role teacher educators and mentors – including those working in higher education and in schools – play in developing teachers makes it indispensable to acknowledge them as a unique occupational group and create mechanisms that enable them to do their job well (Swennen and Van Der Klink, 2009^[53]). This includes recognising and raising their status in order to attract experienced and competent teacher educators in higher education institutions and mentor teachers in schools. On the other hand, a heavy teacher workload and a lack of clear incentives might prevent qualified and experienced individuals from supporting early career teachers (OECD, 2019^[23]).

Mentoring is built in the teacher career stages and the vast majority of new teachers have access to this type of early career support. While mentoring is widespread, mentors' status is not sufficiently recognised by the system in Kazakhstan. While the new law on teachers' status now recognises this work by a salary supplement, regulations do not give mentors reduced teaching hours, which questions the feasibility of quality mentoring work for mentor teachers.

Similarly, teacher educators who train future teachers in ITE institutions do not have a special status that would distinguish them from other staff and make the specific competences required from them clear. Pedagogical universities (whose only profile is teacher education) are the only ITE institutions where the entire staff is clearly recognised as teacher educators. The competences of these staff in preparing future teachers are reflected in the results of the NCE "Atameken" programme ranking (National Chamber of Entrepreneurs, 2020^[54]). However, staff teaching subject-specific courses in general universities typically belong to disciplinary departments, do not coordinate the preparation of teachers with pedagogical departments, and have less access to pedagogical training themselves.

Recommended actions

To better recognise the status of teacher educators, the OECD recommends to:

1. Complement regulations to better recognise mentor teachers' status.

The new law on teachers' status or additional regulations can be further complemented to facilitate effective mentoring by reducing teaching hours in addition to introducing additional salary compensation. Recognition of mentors' competences should be reflected in the teacher category descriptions. This can be easily done if Kazakhstan adopts roadmap standards, and mentoring becomes a required competence from a certain level (e.g. researcher teacher as stipulated by the recent regulation on mentoring). Standards or competence descriptions for mentors should be aligned with guidelines on induction (see Recommendation 3.2).

2. Recognise ITE institution-based teacher educators as a distinct professional group (in relation to other university staff).

The numerous roles teacher educators in teacher colleges and universities have, such as coaching, facilitating collaboration among diverse organisations and stakeholders, assessing, developing curriculum, conducting research and engaging in critical enquiry, need to be recognised. ITE-specific programme standards should include expectations with regards to appropriate human resource policies that recognise these various roles (Recommendation 2). Universities should in turn address these through developing appropriate human resource policies. Such roles can also be specifically recognised in professional standards (see below).

4.2. Task teacher educators with defining professional standards for themselves and adjust appraisal mechanisms

Evidence

Competence standards for teacher educators is not yet widespread across the OECD, even though it can contribute to maximising the impact of this unique profession (see Box 4 for an example in the Netherlands). Such standards can act as quality frameworks that provide a shared language and a frame of reference that teacher educators, school leaders and teachers can use to reflect on teacher educator quality and professional development (Swennen and Van Der Klink, 2009^[53]). It can be used as a tool for selecting teacher educators, as well as for the systematic monitoring of their performance and professional development support (Caena, 2014^[55]). Common professional standards for both ITE- and school-based teacher educators could also contribute to a smooth transition between ITE and early career support and create a continuity in teachers' development (European Commission, 2015^[56]).

Such standards do not exist in Kazakhstan. Accreditation standards of the main agencies recognise the importance of university staff's teaching skills. For example, both the IQAA and IAAR specialised standards require university and college teaching staff to use student-centred learning (a fundamental principle of the Bologna reforms in higher education), innovative teaching approaches and ICT tools. However not all of the programme standards of the different agencies require mechanisms to appraise staff's use of these practices. Moreover, because the programme standards are not ITE-specific, they do not address the specific requirements of ITE teaching staff in preparing future teachers.

Recommended actions

The OECD recommends the following steps:

1. Develop professional standards for teacher educators.

Similarly to Recommendation 1, identify key stakeholders who should be involved in developing the standards and designate a leading committee. Relevant stakeholders in Kazakhstan’s ITE system can include representatives of ITE institutions, school leaders and teachers, teacher candidates, accreditation agencies and experts. Including both school- and ITE-based actors help bridge the expectations of these two settings. A committee can then be designated to lead the development and actively engage all relevant stakeholders in the process.

Professional standards for teacher educators need to be in line with the vision and strategy for ITE (see Recommendation 1), the teacher standards, the standards for programme accreditation and the state standards on education. International examples include the Netherlands, where the Dutch Professional Association for Teacher Educators developed professional standard for teacher educators as well as a registration procedure (OECD, 2019^[57]).

2. Adjust the professional teaching standards and appraisal criteria for higher teacher categories to include mentoring competences.

Revising the teacher standards into a roadmap can be a solution for clarifying mentoring competences in the standards. The criteria to obtain teacher categories that require mentoring (from expert level and above) can then simply refer to the corresponding standards. If roadmap standards are properly aligned with teacher educator standards, they can also provide career routes for the highest category of teachers to assume teacher educator roles in an ITE institution. This creates more fluidity between school (teachers) and university (academics) with a view to improving the quality and relevance of instruction in both settings.

Box 4. Professional standards for teacher educators in the Netherlands

Context

More than 30 years ago, the Dutch Professional Association for Teacher Educators (VELON) was founded to foster the professionalisation of teacher educators. VELON developed professional standards for teacher educators and a registration procedure in the late 1990s, which were last revised in 2012. Dutch teacher educators – including those who work at universities, teacher colleges, professional development centres, and who provide a formal contribution to the development of future or in-service teachers – are admitted into the professional register if they demonstrate that they meet the standards. Registration is then valid for a period of four years. Currently, VELON has around 1 400 individual members who are professionally involved in both pre- and in-service teacher education (VELON, 2020^[58]).

The professional standards for teacher educators

The standards describe the nature of the profession, provide a guideline for professional development, and a benchmark for professional registration. They consist of a set of fundamental principles in four competence areas for prospective and professional teacher educators. The fundamental principles encompass the three essentials of being a teacher educator: students’ learning, the teacher candidates’ learning and the learning of the teacher educator him or herself.

Figure 7. Fundamental principles of the professional standards for teacher educators



Source: (VELON, 2019^[59]). VELON. Beroepsstandaard voor lerarenopleiders [Professional standards for teacher educators]. <https://registratiesite.brlo.nl/CMS/VELON/Downloadpagina/Algemeen/Brochure%20Beroepsstandaard%205e%20druk.pdf> (accessed 10 January 2020).

Why is this a promising practice?

Teacher educator standards are part of a number of frameworks that set system-wide standards for quality in the Netherlands. Along with the other frameworks – such as the knowledge bases for initial teacher education and teacher educators – these standards help set system-wide expectations for what teachers and teacher educators need to know and be able to do. There is a large amount of support for the frameworks as they are developed and owned by teacher educators.

Source: Adapted from (OECD, 2019^[57]). OECD. Industry-developed professional standards for teacher educators in the Netherlands. <http://www.oecdteacherready.org/promising-practice/industry-developed-professional-standards-for-teacher-educators-in-the-netherlands/> (accessed 8 January 2020).

4.3. Ensure continuous professional development opportunities for teacher educators and mentors based on their professional standards

Evidence

Teacher education institutions need to acknowledge and support teacher educators in their diverse roles. Yet, in a number of countries ITE-based teacher educators are predominantly appointed, evaluated or promoted based on their scientific work, not the extent to which they help teachers succeed (Sonmark et al., 2017^[60]).

The needs of teacher educators in ITE institutions

While the IQAA's personnel-related programme accreditation standard requires the systematic assessment of staff competence, the IAAR standards do not include this requirement. The use of appraisal mechanisms thus depends on the institution and the accreditation that they choose. Based on the self-evaluation reports ITE institutions prepare for accreditation, current practices include student satisfaction surveys and in some cases peer observations. However, the results of these appraisals are not always linked to the professional development they receive.

The IQAA identified university staff's professional development as one of the major challenges ITE institutions are facing. This accreditation agency reported that while universities try to organise workshops and conferences for their staff as part of their professional development, the important cost implications (especially travel costs) these have can hinder staff's participation. For teacher educators specifically, the content of professional development depends on the university's aims and the personal interest of the staff members. Since there are no ITE-specific programme standards, there is also no explicit guidance about training educators to prepare future teachers. Some universities reported that their staff have participated in NIS CoE courses on the new school curriculum. This is not a clear requirement, however, and not everyone has access to them (e.g. the IQAA reported that some private universities are less linked to NIS, which may imply a limited use of their professional development).

The needs of mentors in schools

Mentoring is a recognised competence in Kazakhstan that is reflected in the various teacher categories. However, little attention is paid to specifically evaluating and developing these competences. The regular appraisal for promotion (attestation) evaluates mentoring activities through teachers' portfolios. These can include feedback from mentees, records of joint lesson planning and other pieces of evidence such as photos or videos. The Ministry introduced three requirements for mentoring in 2020: only researcher or master teachers can be mentors. A minimum score is set for mentors' subject knowledge as measured by the NQT, and mentors need to comply with basic pedagogical principles and ethics. While this is an important step in recognising mentors' status, these requirements do not constitute specific standards for mentoring competences, and consequently mentors' appraisal.

Regarding professional development, the Centre for Pedagogical Assessment reported that there is no follow up on mentoring competences in the teacher appraisal process. Therefore, while the NIS CoE and Orleu both offer training courses in mentoring, these are not required and are not linked to the evidence of mentors' needs and competences.

Recommended actions

Governments need to properly identify teacher educators' needs (as teachers and not just academics) and develop institutional incentives to address these. To improve themselves, teacher educators will then need access to relevant professional development opportunities and dedicated resources. Specifically, the OECD recommends to:

1. Map teacher educators' and mentors' professional development needs.

This could be based on surveys of ITE graduates and of trainee teachers in schools, surveys of teacher educators and mentors themselves. In the short term, survey data can be complemented with a collective self-reflection exercise conducted with the stakeholders. In the medium and long term, needs analysis should systematically build on graduation and certification results and should gradually become an integral part of the appraisal process (see Recommendation 4.2).

2. Design and fund extensive professional development programmes.

Map existing programmes, such as training courses offered by Orleu and the NIS CoE, and compare them to teacher educators' and mentor teachers' needs to identify gaps. Consider filling these gaps in two timescales: in the short term focus on national education priorities (e.g. the new school curriculum and new pedagogical approaches), in the long term build capacity to provide training in all competence areas defined in the standards.

It is important to find matching capacity, i.e. institutions (university faculties, colleges and training providers) that have the expertise and capacity to develop training in the identified areas. Funding (e.g. earmarked grants) will be necessary to develop and operationalise these programmes. Offering more extensive programmes, such as master's or PhD programmes for teacher educators should also be considered.

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Annex A. Key indicators

#	List of key indicators	Kazakhstan	OECD
Background information			
Economy			
1	GDP per capita, PPP (constant 2011 international \$), 2018*	27 738	40 537
2	GDP per capita growth (annual %), 2018*	4.1	2.3
Society			
3	Population growth (annual %), 2018*	1.3	0.6
4	Population aged 14 years or less (%), 2018*	28.5	17.8
Education indicators			
System			
5	Starting age of compulsory education, 2018***	7	5.7
6	Duration of compulsory education (years), 2017***	9	10.9
Students – net enrolment rates			
7	Pre-primary education (ISCED 0), 2017***	54.9	84.4
	Primary education (ISCED 1), 2018***	87.6	95.6
	Secondary education (ISCED 2 and 3), 2018***	89.4	89.4
8	Tertiary education attainment rate (25 to 34 years old) (ISCED levels 5 to 8), 2015***	50.3	40.9
9	Share of students enrolled in vocational programmes for upper secondary education (15 to 19 year olds), 2017***	39.7	43.1
Teachers			
10	Mean age of teachers (TALIS 2018)	40.9	44.1
11	Share of female teachers in secondary education	75.5	58.6
12	Ratio of students to teaching staff (2018) Primary education (ISCED 1)***	19.6	15.3
13	Ratio of students to teaching staff (2018) Secondary education (ISCED 2 and 3)***	7.0	13.7
Finance			
14	Total expenditure on education as a percentage of GDP, all levels 2016***	3.0	5.4
15	Total public expenditure on primary education as a percentage of total government expenditure, 2017 for Kazakhstan, 2016 for OECD average***	1.0	3.5
Learning outcomes			
16	Mean students' performance in reading, PISA 2018****	387	487
17	Mean students' performance in science, PISA 2018****	397	489
18	Mean students' performance in mathematics, PISA 2018****	423	489

Source: * The World Bank, World Bank Indicators: Education, <https://data.worldbank.org/topic/education> (accessed on 17 January 2020)

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