

Exhibit 8: Main Preparation Routes and Current Requirements for Fourth Grade Teachers

Reported by National Research Coordinators

Country	Main Teacher Preparation Route(s)*	Current Requirements				Description of Policy Changes Within Past 10 Years
		Supervised Practicum During Teacher Education Program	Passing a Qualifying Examination	Completion of Probationary Teaching Period	Completion of Mentoring or Induction Program	
Albania	University degree in education; Graduate degree in education	● (1 year)	●	● (3 months)	●	No change in policy
Australia	University degree in education; Graduate degree in education	● (varies by course, but at least 60 days)	○	● (varies by state, usually 1 year)	○	In 2011, all Ministers of Education endorsed a nationally consistent approach to teacher registration. This includes requiring the same standards and consistent processes across states and territories to achieve full registration and ensure that registration is part of a wider framework for teachers' career progression and professional learning guided by the Australian Professional Standards for Teachers. In 2016, a requirement was introduced that all initial teacher education students must pass the Literacy and Numeracy Test for Initial Teacher Education Students in order to demonstrate that they have been assessed as being the top 30 percent of the adult population in personal literacy and numeracy.
Austria	University degree in education	● (included in ECTS credits)	●	○	●	A new law regarding teacher education was implemented in July 2013. Teacher preparation takes place at a university college of teacher education. Teachers are still prepared to teach almost all subjects (formerly this was the only possibility for primary grades teachers), but for the first time teachers may specialize in subjects or pedagogical topics. The new program has been fully implemented since October 2015 and all students at a university college of teacher education in Austria have to complete courses adding up to 240 ECTS (BA). As of October 2019, all teachers of primary grade also must complete courses adding up to minimum 60–120 ECTS (MA). As soon as the teacher has completed the BA, they may start teaching (but should finish the MA parallel to teaching). The first year of teaching counts as induction phase. During the induction phase the teachers are supported by mentors. The induction phase may start after completion of BA or MA.
Azerbaijan	University degree in education; Graduate degree in education; Specialized teaching program after university degree	○	●	○	○	No change in policy
Bahrain	University degree in education; Graduate degree in education; Teachers' college or normal school degree; Specialized teaching program after university degree	● (1 semester)	●	● (1 year)	●	In the past 10 years, graduates of cycle 2 programs from Bahrain Teachers College (a specialized college for teachers in the University of Bahrain) are allowed to teach Grade 4 core subjects. These graduates have specializations in the subject areas and age group (Grades 4–6).
Belgium (Flemish)	Graduate degree in education; Teachers' college or normal school degree	● (3–5 months)	○	○	○	No change in policy
Belgium (French)	University degree in education; Graduate degree in education	● (780 hours over 3 years)	●	○	○	No change in policy

● Yes

○ No

*These are general teacher preparation route descriptions; the structure of programs varies across countries.
Note: 60 European Credit Transfer and Accumulation System (ECTS) credits are equivalent to one full year of study or work.
A dash (–) indicates data not provided.

Exhibit 8: Main Preparation Routes and Current Requirements for Fourth Grade Teachers

Reported by National Research Coordinators

(Continued)

Country	Main Teacher Preparation Route(s)*	Current Requirements				Description of Policy Changes Within Past 10 Years
		Supervised Practicum During Teacher Education Program	Passing a Qualifying Examination	Completion of Probationary Teaching Period	Completion of Mentoring or Induction Program	
Brazil	University degree in education; Graduate degree in education; Teachers' college or normal school degree	● (approx. 400 hours)	○	○	○	In 2015 the National Education Council extended the workload of initial training courses from 2,800 to 3,200 hours. The new guidelines also established a distinction between what is Supervised Internship and Practice as a Curricular Component within teacher training courses. In 2019 new National Curriculum Guidelines for the Initial Training of Basic Education Teachers and Common National Base for the Initial Training of Basic Education Teachers were established. These latest Guidelines establish a new organization for the 3,200 hours of the initial teacher training course. These new Guidelines provide alignment between the initial training of basic education teachers and the National Common Curriculum Base for Basic Education. The latest guidelines are in the process of being implemented by higher education institutions.
Bulgaria	University degree in education	● (150–240 hours)	●	○	●	Ordinance 15 of July 2015 defines the state educational standards and the professional development for teachers, principals, and other educational specialists.
Canada	University degree in education; Teachers' college or normal school degree; Specialized teaching program after university degree	● (varies by province, typically 9–20 weeks)	○	● (varies by province)	●	No change in policy
Chinese Taipei	University degree in education; Teachers' college or normal school degree; Specialized teaching program after university degree	● (1 semester)	●	○	●	No change in policy
Croatia	University degree in education	● (2 years)	●	● (1 year)	○	No change in policy
Cyprus	University degree in education	● (varies by university, 6 months on average)	○	● (2 years)	○	No change in policy
Czech Republic	University degree in education	● (varies by program, generally 6–12 weeks)	●	○	○	No change in policy
Denmark	Teachers' college or normal school degree	● (12 weeks on average)	○	○	○	With the reform of Danish Teacher Education in 2013, the L1 subject was specialized into age groups. Student teachers who choose Danish as a teaching subject complete 1 or both specializations in Danish (i.e., Danish for Grades 1–6 and/or Danish for Grades 4–10). This division of the teaching subjects follows the Folkeskole's division of form levels into teams. A teacher specialized in Danish for Grades 1–6 can thereby teach students in the preparatory stage (Form Level 1–3) and the intermediate stage (Form Level 4–6). Teachers specialized in Danish for Grades 4–10 teach students in the intermediate stage and the final years of schooling (Grades 7–10). Students in fourth grade can receive instruction by teachers with either specialization.

● Yes
○ No

*These are general teacher preparation route descriptions; the structure of programs varies across countries.

Exhibit 8: Main Preparation Routes and Current Requirements for Fourth Grade Teachers

Reported by National Research Coordinators

(Continued)

Country	Main Teacher Preparation Route(s)*	Current Requirements				Description of Policy Changes Within Past 10 Years
		Supervised Practicum During Teacher Education Program	Passing a Qualifying Examination	Completion of Probationary Teaching Period	Completion of Mentoring or Induction Program	
Egypt	University degree in education; Graduate degree in education; Specialized teaching program after university degree	○	○	○	●	No change in policy
England	University degree in education; Specialized teaching program after university degree	● (18–32 weeks)	●	● (2 years)	●	Employment-based routes to teaching have been introduced, including: one year school-led courses (SCITT [school-centred initial teacher training] & School Direct); a two-year route for excellent graduates wishing to enter the teaching profession within school training and coaching; and, most recently, postgraduate teaching apprenticeships (PGTA). These employment-based routes accounted for 53% of the postgraduate new entrants into teaching for the 2020–2021 academic year.
Finland	University degree in education	● (approx. 1000 hours)	○	○	○	No change in policy
France	University degree in education; Graduate degree in education; Teachers' college or normal school degree	● (1 year)	●	○	○	From 1992 to 2011, primary school teachers were qualified after obtaining a license (i.e., 3 years of higher education). From 2011 to 2013 primary school teachers were qualified after obtaining a master's degree (i.e., 5 years of higher education).
Georgia	University degree in education; Specialized teaching program after university degree	● (varies by program)	●	● (1 year)	●	Since 2015, teachers must pass a subject-matter examination and become involved in the teacher's professional development and career advancement scheme. The scheme consists of 4 rungs (practitioner, senior, leading, and mentor) and has corresponding indicators.
Germany	University degree in education; Specialized teaching program after university degree	● (varies by degree)	●	● (varies by state, generally 12–24 months)	●	Within the last decade, the federal states have implemented various programs to qualify and promote teachers who became teachers through cross-entry or lateral entry (without a first degree). The programs and requirements vary by federal state. In 2013, the Standing Conference of Ministers Education and Cultural Affairs of the Länder in the Federal Republic of Germany declared that the federal states have to establish structures to mitigate the teacher shortage in Germany (e.g., by supporting cross-entries or lateral entries).
Hong Kong SAR	University degree in education; Specialized teaching program following a university degree	○	○	○	○	Starting from the 2022-2023 school year, newly appointed teachers in all public sector schools are required to pass the Basic Law Test in order to be considered for appointment.
Hungary	University degree in education; Graduate degree in education; Teachers' college or normal school degree	● (8–10 weeks)	●	●	●	The teacher career model was implemented in September 2013. The first two years are the mandatory internship period, which ends with a qualifying exam. After a successful qualifying exam, the teacher is ranked as "Teacher I." The next level is "Teacher II," which is also mandatory for all educators. The 2 upper levels of the career system (the "Master Teacher" and "Researcher Teacher" degrees) are optional.
Iran, Islamic Rep. of	University degree in education; Teachers' college or normal school degree; Specialized teaching program after university degree	● (4 semesters)	○	○	○	Passing a qualifying examination is required for degree holders from universities other than Teacher Training Universities or with majors other than primary education.

● Yes
○ No

*These are general teacher preparation route descriptions; the structure of programs varies across countries.

Exhibit 8: Main Preparation Routes and Current Requirements for Fourth Grade Teachers

Reported by National Research Coordinators

(Continued)

Country	Main Teacher Preparation Route(s)*	Current Requirements				Description of Policy Changes Within Past 10 Years
		Supervised Practicum During Teacher Education Program	Passing a Qualifying Examination	Completion of Probationary Teaching Period	Completion of Mentoring or Induction Program	
Ireland	University degree in education; Graduate degree in education	● (varies by program)	●	○	●	Between 2011 and 2015, the duration of initial teacher education programs was extended from 3 years to 4 for undergraduate programs and from 18 months to 2 years for postgraduate programs. Previously, newly qualified teachers (NQTs) underwent a probation period involving 100 days of teaching, with visits from a Department of Education Inspector who would evaluate their work and professional competence. From 2016, the 'Droichead' induction framework, organized internally at school level, was introduced as an optional alternative to the probation process. From September 2020, the Droichead induction framework has replaced the probation process for all NQTs.
Israel	University degree in education; Teachers' college or normal school degree	● (2 years)	●	● (1 year)	●	No change in policy
Italy	University degree in education	● (600 hours)	●	● (180 days)	●	No change in policy
Jordan	University degree in education	○	○	○	○	No change in policy
Kazakhstan	University degree in education; Teachers' college or normal school degree	● (2 semesters)	●	○	●	Since 2018, Kazakhstani teachers complete an attestation process by taking a national qualification test on subject content and teaching methods and submitting a portfolio at least once every 5 years to be qualified in a category (previously, the attestation process only included a portfolio). In the same year the number of qualification categories was extended from 3 (first category, second category, the highest category) to 5 (teacher, teacher-moderator, teacher-expert, teacher-researcher, and teacher-master). On November 12, 2021, passing the National Qualification Test and having the first qualification category ("teacher") became mandatory for university and college graduates to apply for a teaching job.
Kosovo	University degree in education; Graduate degree in education; Teachers' college or normal school degree; Specialized teaching program after university degree	○	●	○	○	No change in policy
Latvia	University degree in education; Specialized teaching program after university degree	○	○	○	○	Regulations have been changed to be less strict, enabling more individuals to practice as teachers.
Lithuania	University degree in education; Graduate degree in education; Specialized teaching program after university degree	● (3–5 months)	○	○	○	The project "Improving the Qualification of Teachers and Other Employees of the Education System," financed by European Union Structural Funds, is in progress from 2018 to 2022. It provides an opportunity for teachers to retrain or gain additional qualifications, as well as those wishing to become teachers from other sectors who already have higher education.

● Yes
○ No

*These are general teacher preparation route descriptions; the structure of programs varies across countries.

Exhibit 8: Main Preparation Routes and Current Requirements for Fourth Grade Teachers

Reported by National Research Coordinators

(Continued)

Country	Main Teacher Preparation Route(s)*	Current Requirements				Description of Policy Changes Within Past 10 Years
		Supervised Practicum During Teacher Education Program	Passing a Qualifying Examination	Completion of Probationary Teaching Period	Completion of Mentoring or Induction Program	
Macao SAR	Teachers' college or normal school degree; Specialized teaching program after university degree	● (varies by college)	○	○	○	Before September 2014, fourth grade teachers only had to complete a teacher college program or equivalent qualification. Therefore, the highest level of formal education of some teachers was senior secondary education. Since September 2014, primary school teachers are required to obtain a bachelor's degree in primary education or equivalent academic qualification if they want to be promoted to a higher position.
Malta	University degree in education; Specialized teaching program after university degree	● (10 weeks)	○	● (1 year)	●	Mentoring was introduced in January 2012. From the 2016–2017 academic year, the Bachelor of Education (Hons) and the Postgraduate Certificate in Education have been phased out. Instead a 2-year postgraduate Masters in Teaching and Learning (MTL) has been introduced as the route to the teaching profession.
Montenegro	University degree in education	● (1 year)	●	● (1 year)	●	Since 2017, teachers are required to have a Master's degree from a Faculty of Teacher Training.
Morocco	Graduate degree in education; Teachers' college or normal school degree; Specialized teaching program after university degree	● (6 months)	●	● (1 year)	●	The regional centers for professions of education and training were institutionalized in 2011.
Netherlands	Teachers' college or normal school degree	● (varies by program and semester)	○	○	○	No change in policy
New Zealand	University degree in education; Specialized teaching program after university degree	● (26 weeks)	○	● (2 years)	●	New requirements applying to all teachers, including those teaching at Grade 4 (Year 5) were introduced in 2017. Teachers must renew their practicing certificate every 3 years. When renewing their certificate, 7 criteria are to be met, including the requirement of having completed at least 2 years of uninterrupted teaching in the last 5 years (or completion of a refresher course) with an endorsement from the current school principal that the Standards for the Teaching Profession ('Standards Ngā Paerewa'), have been met. The six standards, introduced in 2018, provide holistic descriptions of high-quality teaching practice in New Zealand.
North Macedonia	University degree in education	● (120 hours)	●	● (1 year)	●	No change in policy
Northern Ireland	University degree in education; Graduate degree in education; Teachers' college or normal school degree; Specialized teaching program after university degree	● (varies by program, 32 or 18 weeks)	●	○	●	No change in policy
Norway (5)	University degree in education; Graduate degree in education	● (minimum of 110 days)	●	○	○	Since the fall of 2017, teacher education has become a 5-year master's degree program. Since 2010 teacher education has been divided into 2 tracks, where the students have to choose between two options: Grades 1–7 or Grades 5–10.
Oman	University degree in education; Graduate degree in education; Specialized teaching program after university degree	● (varies by program)	●	● (4 months)	●	No change in policy

● Yes
○ No

*These are general teacher preparation route descriptions; the structure of programs varies across countries.

Exhibit 8: Main Preparation Routes and Current Requirements for Fourth Grade Teachers

Reported by National Research Coordinators

(Continued)

Country	Main Teacher Preparation Route(s)*	Current Requirements				Description of Policy Changes Within Past 10 Years
		Supervised Practicum During Teacher Education Program	Passing a Qualifying Examination	Completion of Probationary Teaching Period	Completion of Mentoring or Induction Program	
Poland	University degree in education; Specialized teaching program after university degree	● (varies by program, minimum of 150 hours)	○	● (9 months)	○	Revised standards for teacher education were introduced in 2019 and emphasize the importance of practicum. The standards also dictate that, starting in 2021, universities that provide teacher education must have at least scientific category B in the discipline to which the field of study is assigned.
Portugal	University degree in education; Graduate degree in education; Specialized teaching program after university degree	● (1 school year)	○	● (1 school year)	●	From 2015 to 2016, all new candidate teachers had to pass a general education exam plus a specific subject qualifying exam. This requirement was revoked in 2016.
Qatar	University degree in education; Graduate degree in education; Teacher's college or normal school degree; Specialized teaching program after university degree	● (1 year)	●	●	●	No change in policy
Russian Federation	University degree in education; Teachers' college or normal school degree; Specialized teaching program after university degree	● (varies by program)	●	● (no longer than 3 months)	●	Graduation of teachers with only a bachelor's degree who can teach Grades 1–9 began in 2015. Professional teacher standards were also approved.
Saudi Arabia	University degree in education; Specialized teaching program after university degree	● (1 semester)	○	○	○	No change in policy
Serbia	University degree in education	● (1 year)	●	● (1 year)	●	No change in policy
Singapore	University degree in education; Teachers' college or normal school degree; Specialized teaching program after university degree	● (minimum 10 weeks)	●	● (1 year)	●	No change in policy
Slovak Republic	University degree in education	● (approx. 100 hours)	●	○	●	No change in policy
Slovenia	University degree in education	●	●	○	●	Study programs for general teachers at the primary level of basic school used to take 5 years (3+2 years or 4+1 years); this was changed due to the Bologna process in higher education (although those who hold older [i.e., not Bologna] degrees can be employed). After the 2015–2016 school year, the regulations for pre-service teacher education are as follows: first cycle programs take 4 years, while second cycle programs take 1 year. Study programs are integrated: theoretical, professional and subject syllabi are inseparable. Subject components and didactics are connected with the National Basic School Curriculum.
South Africa	University degree in education; Graduate degree in education	● (varies by qualification, generally 5–10 weeks)	○	● (12 months)	○	No change in policy
Spain	University degree in education	● (12 months total, 3 periods of 4 months each)	●	● (up to 1 year)	○	No change in policy

● Yes
○ No

*These are general teacher preparation route descriptions; the structure of programs varies across countries.

Exhibit 8: Main Preparation Routes and Current Requirements for Fourth Grade Teachers

Reported by National Research Coordinators

(Continued)

Country	Main Teacher Preparation Route(s)*	Current Requirements				Description of Policy Changes Within Past 10 Years
		Supervised Practicum During Teacher Education Program	Passing a Qualifying Examination	Completion of Probationary Teaching Period	Completion of Mentoring or Induction Program	
Sweden	University degree in education	● (approx. 20 weeks)	●	○	○	Since 2011, teachers must apply for a certificate from the Swedish National Agency for Education. This teacher certificate is necessary to obtain permanent employment and grade students.
Türkiye	University degree in education; Specialized teaching program after university degree	● (2 semesters)	●	○	●	Prior to 2011, 2 different types of employees were eligible to work in the official education institutions of our Ministry, as permanent staff and contracted employment. After June 2011, only permanent teachers were employed by the Ministry until 2016. After 27 July 2016, the teacher employment model with a fixed-term contract was introduced. Contract teachers employed within the scope of this Decree-Law are appointed to the teaching staff upon their request at the end of the three-year working period as per the contract.
United Arab Emirates	University degree in education; Graduate degree in education; Teacher's college or normal school degree; Specialized teaching program after university degree	● (6 months to 2 years)	●	● (varies by school)	●	At the end of 2020, the Teachers' Licensing System (TLS) was introduced as a requirement for education professionals. To work legally, all teachers must obtain a teacher's license. The teacher's license is obtained by passing two exams, one in pedagogy and the other in the domain specialization of the teacher.
United States	University degree in education; Graduate degree in education; Specialized teaching program after university degree	● (varies by state, generally 8–12 weeks)	● (varies by state)	● (varies by state)	● (varies by state)	Federal guidelines for Highly Qualified Teachers were eliminated in 2015, leaving determination of teacher certification requirements and core content qualifications to the individual states.
Uzbekistan	University degree in education; Graduate degree in education; Specialized teaching program after university degree	–	○	●	●	No change in policy
Benchmarking Participants						
Ontario, Canada	University degree in education	●	●	○	●	As of September 2015, the length of initial teacher education programs in the province of Ontario was doubled to 4 semesters (from 2) and the minimum practicum requirements increased to 80 days (from 40). In April 2019, the Ontario government announced a new requirement of successful completion of a math content knowledge test (later Math Proficiency Test (MPT)) for new applicants registering with the Ontario College of Teachers (OCT); this is currently on pause. As of January 1, 2022, all Ontario certified teachers, applicants, and re-applicants are required to complete an online sexual abuse prevention program.
Quebec, Canada	University degree in education	●	○	○	○	No change in policy

● Yes
○ No

*These are general teacher preparation route descriptions; the structure of programs varies across countries.

Exhibit 8: Main Preparation Routes and Current Requirements for Fourth Grade Teachers

Reported by National Research Coordinators

(Continued)

Country	Main Teacher Preparation Route(s)*	Current Requirements				Description of Policy Changes Within Past 10 Years
		Supervised Practicum During Teacher Education Program	Passing a Qualifying Examination	Completion of Probationary Teaching Period	Completion of Mentoring or Induction Program	
Moscow City, Russian Federation	University degree in education; Graduate degree in education; Teachers' college or normal school degree; Specialized teaching program after university degree	● (varies by route, generally 6–20 weeks)	●	○	●	The Ministry of Labor approved the Professional Teacher's Standard, which reflects the requirements for a teacher, in 2013. Teachers must possess new competencies, including: work with gifted students; work in the conditions of inclusive education programs implementation; teach Russian language to students for whom it is not native; work with students who have problems in development; work with students with developmental issues and socially neglected and socially vulnerable students with serious behavioral problems.
Abu Dhabi, UAE	Same as United Arab Emirates	●	●	●	●	A teaching license is preferred and basic computer skills are now required.
Dubai, UAE	University degree in education; Graduate degree in education; Teachers' college or normal school degree; Specialized teaching program after university degree	● (6 months to 2 years)	●	● (varies by school)	●	

● Yes
○ No

*These are general teacher preparation route descriptions; the structure of programs varies across countries.