

Teaching professionals: skills opportunities and challenges (2019 update)

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Summary

Teaching professionals are responsible for holding classes, seminars or lectures on different educational levels and academic disciplines.

Key facts:

- Around 10 million people were employed as teaching professionals in 2018. Employment in the occupation grew by 2 per cent between 2006 and 2018.
- Employment is projected to decrease 2 per cent over the period 2018 to 2030. This underestimates the true level of employment demand. In order to replace those workers who will leave the occupation for one reason or another – an estimated 5.5 million between 2018 and 2030 – and despite the projected decrease in demand over the same period, around 5.3 million job openings will need to be filled.
- Across the diverse academic and vocational disciplines and education levels, teaching professionals must not only possess subject-specific knowledge and soft skills but also keep pace with evolving

teaching practices that will affect their skills profile.

- The so-called “21st century skills”, that include critical thinking, innovation and information literacy, shifted the focus towards learner-centred education and set higher benchmark for teachers’ skills.
- In the workplace, *teaching, training, coaching, creativity, resolution, gathering and evaluating information* are the most important tasks and skills of teaching professionals.
- Although science, technology and mathematics (STEM) education is very often seen as a priority in Member States, both job and skill gaps of teachers pertain.
- Technological advancements need to be reflected in curricula and teaching practices, especially in VET and professional education.
- Around 85 per cent of teaching professionals held high-level qualifications in 2018; more or less the same proportion is projected for 2030.

Tasks and skills

Teaching professionals [1](#) are responsible for holding classes, seminars or lectures on different educational levels (primary and early childhood, secondary, university and higher education) and academic disciplines, both in general and vocational education and training (VET); designing and modifying curricula; conducting adult learning programmes; teaching and educating individuals with learning difficulties or special needs; or consulting on the organisational decisions of education institutions.

According to [Eurofound's Job Monitor](#), *teaching, training, coaching, creativity, resolution, gathering and evaluating information* are the most important tasks and skills of teaching professionals.

Figure 1: Importance of tasks for teaching professionals

Intellectual



Physical



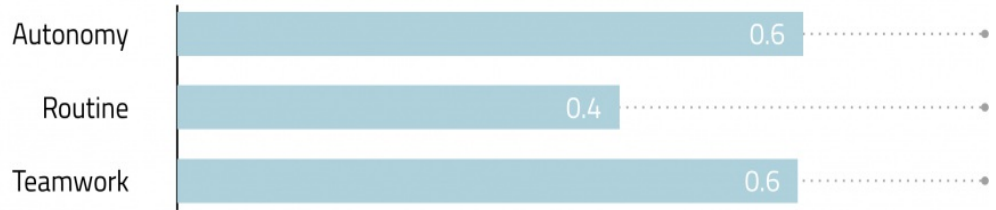
Social



teach, train and coach

0.7

Use of methods



Use of technology



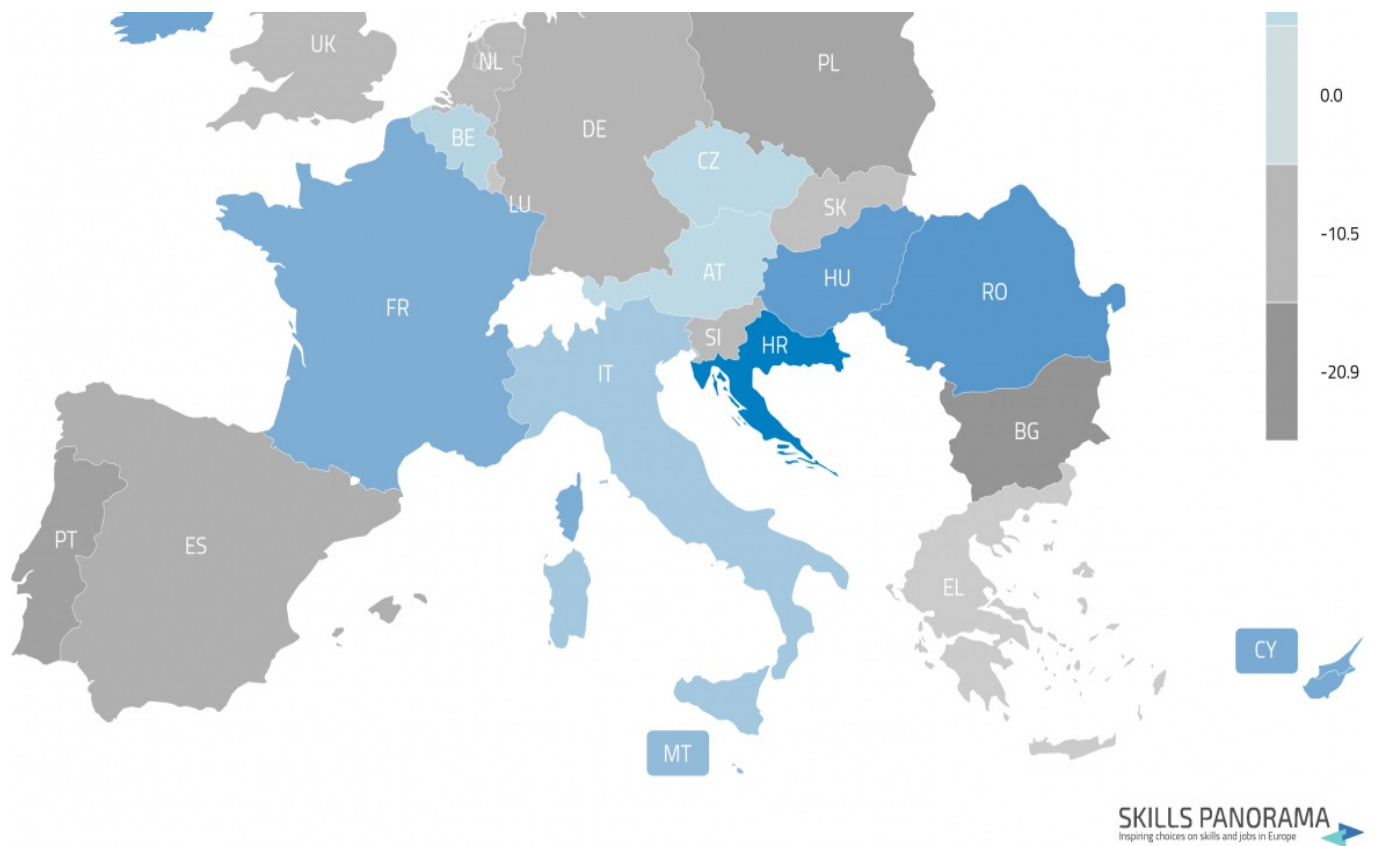
Note: The importance of tasks and skills is measured on 0-1 scale, where 0 means least important and 1 means most important.

What are the trends for the future? ²

The employment level of teaching professionals across sectors is expected to decrease by 2 per cent between 2018 and 2030, a small drop in employment following the 2 per cent increase over the period 2006 to 2018. 13 of analysed European countries are expected to create new jobs for teachers and trainers, while in the remaining 15 countries their employment levels should decline.

Figure 2: Future employment growth of teaching professionals in European countries (2018-2030, in %)





The decrease in employment understates the demand for people to work as teaching professionals. Over the period 2018 to 2030 an estimated 5.5 million people are projected to leave the occupation for one reason or another such as retirement ³. Despite the projected decrease in demand over the same period, around 5.3 million job openings will need to be filled in years to come.

Figure 3: Future job openings of teaching professionals (2018-2030)



With regard to qualification levels, 84 per cent of teaching professionals held high-level qualifications in 2018. This is not projected to change in the period 2018 to 2030.

More information on employment trends for this occupation can be found on the Skills Panorama [here](#).

Which drivers of change will affect their skills?

Across the diverse academic and vocational disciplines and education levels, teaching professionals must not only possess subject-specific knowledge and soft skills (such as communication, emotional intelligence and critical thinking) but also keep pace with evolving teaching practices that will affect their

skills profile.

- Technological advancements, the shifting of European economies towards service provision and globalisation, and the continued development of the knowledge economy, stress the importance of specific skills. In turn, this impacts expectations on teachers' skillsets and their ability to implement teaching methods that are considered more suitable:
 - The so-called "**21st century skills**", that include critical thinking, innovation and information literacy [4](#), shifted the focus towards **learner-centred education**. This involves focusing on the personal requirements of individuals, allowing them to select their preferred methods of learning, researching and analysing information. [5](#) Teachers must develop new skills that enable them to work collaboratively with students and improve their practice based on feedback regarding the learning process.
 - Although **science, technology and mathematics (STEM)** education is very often seen as a priority in Member States, both job and skill gaps of teachers pertain. Most teaching students do not opt to specialise in STEM-related disciplines; while only two in five teaching students report that initiatives are planned, or are already in place, to address this shortage. However, almost half of EU countries place particular emphasis on improving initial and/or in-service training of STEM teachers' skills. [6](#)
 - **Technological advancements in digital learning** and the **increasing prevalence of online and mobile internet activities** are facilitating the aforementioned trend towards greater learner-centeredness and personalisation of learning. For instance, in "flipped learning" core material is provided in advance to learners who then supplement it through personal and group activities (reading, exploring resources, using learning platforms to exchange material, discuss and debate with other learners). Classroom time is then used to discuss work in groups, and for the educator to help the learners to structure and understand the material in accordance with their individual needs. [7](#) Teachers need new pedagogical skills to implement such approaches. With this increased focus on students' working independently outside of school hours, teachers need the skills to manage **online learning platforms** through different devices. The ability to use digital media is vital in providing students with advice and assistance, mediating cooperation between classmates outside of school hours, and managing parental concerns. [8](#)
 - The growth of **open educational resources (OER)** also has wide repercussions on learner centred methods. Teaching professionals need to have the skills to create and manage OER, including students' involvement in the co-creation of content. In higher education in particular, the development of Massive Open Online Courses (MOOCs) requires teaching professionals to hold skills allowing them to design and manage on-line teaching as well as interacting with and assessing students only on-line.
 - New digital learning technologies reshape teaching in adult education as well, by opening up possibilities for people to learn **anywhere at any time** and follow more personalised learning pathways that correspond with one's lifestyle. Adult educators face the challenge of developing skills to implement and manage such technologies in ways that are beneficial to their learners [9](#).

Technological advancements need to be reflected in curricula and teaching practices, especially in VET and professional education. VET also faces a challenge of keeping in line with workplace practices. This is

particularly challenging in Member States where teachers are involved in designing the curricula in addition to teaching them. One example is medical educators, who must be able to tailor course material to provide future healthcare specialists with up-to-date content; prepare future health professionals to be able to respond to emerging skills needs, such as those relevant to “personalised medicine” 10, brought about by technological and organisational change. 11

- With only 34% of teaching professionals under the age of 40, **demographic patterns** will significantly impact teaching professionals’ skills. Especially in countries with “older” teachers (in Bulgaria, Greece, Estonia, Latvia and Austria less than 25% of teachers is aged below 40; and in Italy only 10% 12) students may have a higher level of IT literacy than their teachers. Such skill gaps could hinder the adoption of e-learning and other innovative pedagogical tools.
- The need to improve the **entrepreneurial base of Europe** brings to the forefront pedagogies which develop students’ creativity, innovation, initiative, risk-taking, and the ability to plan and manage projects to achieve objectives. Teachers need the skills to mirror these attributes and contribute to a learning culture that is based around student-led enquiry and discovery. 13
- In VET particularly, the **continued development and decreasing cost of advanced technologies**, such as 3D printing, present a valuable opportunity for teachers to equip students with technical skills that are going to be central to future design and production processes. 14 Therefore these teachers and trainers need to have the technical expertise and adaptability to make full use of new equipment and prepare students for a more technologically oriented labour market. 15
- In a **globalised world**, students need to develop an *international outlook*. This requires teachers to: maintain a global perspective themselves; have the skills and competences to identify and absorb new teaching and learning practices from across the globe; and to be aware of how to open up opportunities for transnational learning for their students.
- All teachers, across educational levels and fields, must have the necessary skills to support students with learning or physical disabilities. However, over the next decade teachers are also more likely to face **increasing diversity** in their classrooms and lecture theatres as a result of **migration within and into Europe**. Delivering education and promoting inclusion for non-native communities requires teachers to have competences with regard to understanding intercultural differences, and working effectively with local communities. 16 Teachers will increasingly need to have a well-rounded understanding of different cultural customs and values, gender-sensitive skills, and the ability to provide individualised support in a diverse range of circumstances. 17
- **Risk of automation:** As a part of its [Digitalisation and future of work project](#), Cedefop estimates the [risks of automation](#) for occupations. The most exposed occupations are those with significant share of tasks that can be automated – operation of specialised technical equipment, routine or non-autonomous tasks – and those with a small reliance on communication, collaboration, critical thinking and customer-serving skills. The risk of automation is further accentuated in occupations where employees report little access to professional training that could help them to cope with labour market changes. Teaching professionals are reportedly an occupation with very low risk of automation.





How can these skill needs be met?

“The EDINA (EDucation of International Newly Arrived migrant pupils) project brings together policy makers, schools and researchers from Finland, Belgium and the Netherlands to provide support to teachers in the reception and the integration of Newly Arrived Migrant pupils (NAMS) into the school system. It aims to strengthen the education and training paths of school staff, fostering collaboration between schools, municipalities, and researchers on national and international levels. The programme includes training modules to develop teachers’ competences and promote active differentiation within the classroom, along with a toolset and resource base to optimise the reception, observation and transition processes of NAMS. A particular strength of the programme is that it is developed by an interdisciplinary team including schoolteachers, school boards, municipalities, and researchers”.

Source: European Commission (2015) *Schools, VET and Adult Education helping newly-arrived refugees in Europe. Challenges, ideas and inspiring practices.*

- **Reducing early school leaving** is one of the goals of the ET2020 strategic framework 18. To achieve this goal, teachers should develop respective competencies in cooperation with a range of stakeholders in pupils’ education, and the ability to use learner-centred pedagogic techniques.
- Teaching professionals in **early childhood education** (ECEC) and care face a number of challenges as almost all European countries have reported a shortage of places in ECEC, which is putting pressure on service providers to increase access and quality of their services 19. The European Commission has identified the professionalisation of ECEC staff as a key area for improvement across Member States. Teaching professionals in ECEC must also be equipped with competences that will improve the access and quality for children of disadvantaged backgrounds. 20

Significant shifts in teaching and learning practices underline the need for updates in initial and continuous teacher-education across education levels. Education and training is necessary to tackle teachers’ future skills needs (i.e. adapting to technological advances). 21 Strengthening the support to teachers is also important to avoid attrition during the teacher training process.

Regardless the anticipated changes, education overall and schools in particular remain key reference points and vital elements of local communities. Thus teachers need to have competences pertinent to

early school leaving prevention, helping learners with disabilities or from different social, ethnic or cultural backgrounds. To equip teachers with these skills, comprehensive approaches are needed to introduce diversity at all levels of education, whilst also reaching out to the wider community by engaging with parents, community groups and other stakeholders. 22

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All web-links were last accessed December 2nd, 2019.

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