European Commission

Structural indicators for monitoring education and training systems in Europe 2022

Overview of major reforms since 2015

Eurydice background report

2. Achievement in basic skills

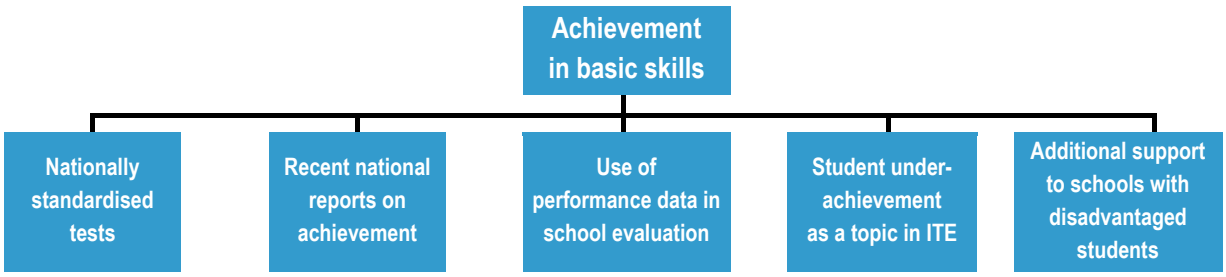
European Education and Culture Executive Agency

2. ACHIEVEMENT IN BASIC SKILLS

Low student achievement in the basic skills of literacy/mother tongue, mathematics and science is a concern for many European countries. It is an issue associated not only with the effectiveness of teaching and learning, but also with providing an equitable system of education. Recognising the need for sustained action, the Council of the European Union agreed an EU-level target related to basic skills, which aims to reduce the proportion of 15-year-olds underachieving in reading, mathematics and science to less than 15 % by 2030 ([4]).

However, underachievement – defined as performing below level 2 in the Programme for International Student Assessment (PISA) test – continues to be a serious challenge across Europe. The latest PISA results from 2018 show that 21.7 % of EU students had low achievement in reading, 22.4 % in mathematics and 21.6 % in science. Across the EU as a whole, underachievement increased in science and reading and remained stable in mathematics over the past decade (*PISA 2018 and the EU: Striving for social fairness through education* ([5]).

The structural indicators below focus on a selection of policies and measures that could contribute to improving student achievement. All indicators concern compulsory education, which in the majority of European countries corresponds to ISCED levels 1 and 2.



The selected indicators relate to competences in three distinct areas, i.e. literacy, mathematics and science. These are often treated separately and given different emphasis in national policies. Evidence shows that there is usually more focus on literacy and numeracy than on science.

Overview of reforms and policy developments since 2015

The **national testing** of students has emerged as an important instrument of education policy. It is a widespread practice in Europe but takes different forms, including sample-based testing. Only a minority of European education systems do not systematically organise national tests in the basic skills. However, due to the COVID-19 pandemic, there have been changes in the timeline and mechanisms for organising national tests in the past two years. In some cases, national tests were cancelled or postponed, or alternative testing methods were employed ([6]).

Most European countries publish **national reports on achievement** in each of the basic skills based on national performance data. In many cases, these reports are complemented by reports based on the country results from international surveys such as PISA, the Trends in International Mathematics

([4]) Council Resolution of 19 February 2021 on a strategic framework for European cooperation in education and training towards the European Education Area and beyond (2021-2030). 2021/C 66/1.
([5]) European Commission, *PISA 2018 and the EU – Striving for social fairness through education*, Publications Office of the European Union, 2019.
([6]) For more information on changes to examinations and national tests in mathematics and science due to COVID, see European Commission/EACEA/Eurydice, 2022. *Increasing achievement and motivation in mathematics and science learning in schools,* pp.69–77.

and Science Study (TIMSS) and Progress in International Reading Literacy (PIRLS). Moreover, in around a third of countries, national reports are based solely on the results of international surveys. In terms of the subject areas covered by these reports, as with the previous indicator on national testing, it appears that performance in the language of instruction and mathematics is analysed much more often than performance in science.

Across Europe, the **evaluation of schools** has become increasingly important for monitoring the overall quality of education. In most cases, school evaluators examine a variety of data from different sources, which can include different types of **student performance data**.

In most countries where the external evaluation of schools is practised, evaluators take student performance data into account to form their judgement on school quality. This is not the case in Greece ([7]), Cyprus, Slovenia, Slovakia, and Norway, where external school evaluation is concerned with school processes and compliance with regulations. Moreover, several countries do not carry out any external school evaluation (Croatia ([8]), Finland and Bosnia and Herzegovina). In the past years, a major reform in Bulgaria led to the introduction of external school evaluation and the use of student performance data in it.

Teachers' ability to deal with student difficulties and their skills in managing students with a range of different abilities and needs are crucial. A number of countries stipulate that the **competences needed to tackle low student achievement** should be acquired during **initial teacher education (ITE)**.

The education authorities in half of all European systems provide central-level regulations, recommendations and/or guidelines for ITE programmes that specify that prospective teachers should learn how to address student difficulties during their training. Central-level involvement in determining the content of ITE programmes varies between countries. The diverse approaches are reflected in the differing degrees of detail in guidance documents and the variety of practices both at national level and at the level of individual higher education institutions. In some cases, only general guidelines are provided without specifying particular subjects. Again, science is the area that is less likely to be mentioned explicitly. It is also significant that in the rest of education systems there are no such guidelines, which is often due to the fact that in these cases higher education institutions are completely autonomous in determining the content of their teacher education programmes.

The central education authorities in around two thirds of all education systems allocate **additional resources to schools that enrol large numbers of disadvantaged students**. There are a variety of approaches in terms of the organisation of the support, the groups targeted and actions funded.

In most countries, schools receive the additional funding directly from the central authorities, although in many cases local authorities are also involved. In some countries, financial flows are rather complex because several levels of authorities (central, regional, local) are involved in the allocation of funding. Moreover, in some cases, in addition to the centrally allocated funding, education providers / schools can apply for extra funds for specific purposes.

([7]) In the 2021–2022 school year, national tests on achievement and school evaluations are carried out in a pilot in 300 primary schools and 300 lower secondary schools. See http://iep.edu.gr/el/arxiki-eedx and http://iep.edu.gr/el/deltia-typou-genika/pisa.

([8]) The pilot project 'External Evaluation of Primary and General Upper Secondary Schools' (*Vanjsko vrednovanje osnovnih škola i gimnazija*) started at the end of 2017 and represents the first phase in the preparation of the introduction of a comprehensive system of external evaluation of educational institutions. See https://www.ncvvo.hr/vanjsko-vrednovanje/vanjsko-vrednovanje-odgojno-obrazovnih-ustanova/pilot-projekt-vanjskoga-vrednovanja-osnovnih-skola-gimnazija/.

Central authorities **do not** allocate such additional resources in Denmark, Croatia, Hungary, Romania, North Macedonia and Norway. In Denmark and Norway this is done at the level of municipalities. In other countries, additional resources for these purposes are provided mainly through social programmes (Romania) or EU and other international projects (North Macedonia). In certain cases (Denmark and Hungary), central-level support is not financial, but focuses on reinforcing the professional development of teachers, providing remedial classes and other educational support.

Across Europe, additional support is most commonly linked to socioeconomic background, migrant status and disability. Criteria like geographical location and ethnic origin are used less often. Targeted funds are used most often to provide additional staff – educational or other professionals, the creation of specific professional development opportunities to improve teachers' competences in providing inclusive education and for career advice services. In the past 7 years, reforms in this area have led to the establishment of a scheme for additional support to disadvantaged students (Malta) or to the reinforcement of existing support (e.g. Czechia, Germany, Spain and Slovenia) ([9]). Finally, to counter the negative impact of COVID-19, several education systems have launched new initiatives in support of disadvantaged students and schools in the past 2 years.

In conclusion, the review of the structural indicators on achievement in basic skills demonstrates that while most countries organise national standardised tests and publish national reports on achievement, not all three basic skills are treated equally, and science is given less attention. Moreover, many countries use student performance data in external school evaluation, but only around half have issued national guidelines to include tackling student underachievement as a topic in ITE. Finally, while most countries provide some type of central support to schools with large numbers of disadvantaged students, there is a great variety of approaches in terms of the organisation of the support, the target groups and actions funded.

Overall, there have been few policy changes and reforms across the indicators on achievement in basic skills in the past 8 years. This could be seen as an indication that these areas do not seem to be a priority for policy action, even though in many countries there are no major improvements in student achievement as measured by the PISA survey.

([9]) For more information on support to disadvantaged schools, see European Commission/EACEA/Eurydice, 2020. *Equity in school education in Europe,* pp.173–186.

Summary table on achievement in basic skills, 2021/2022 (*)

	2. Recent national reports on achievement			3. Use of performance data in school evaluation	4. Guidelines on underachievement as a topic in ITE			5. Additional resources provided by top-level authorities to schools with disadvantaged students
Belgium BE fr	R	M	S	●	R	M	S	●
Belgium BE de	R	M	S	●	R	M	S	●
Belgium BE nl	R	M	S	●	R	M	S	●
Bulgaria	R	M	S	●				●
Czechia	R	M	S	●				●
Denmark	R	M	S	●	R	M	S	
Germany	R	M	S	●	R			●
Estonia	R	M	S	●	R	M	S	●
Ireland	R	M	S	●	R	M		●
Greece	R	M	S					●
Spain	R	M	S	●	R	M	S	●
France	R	M	S	●	R	M	S	●
Croatia	R	M	S					
Italy	R	M		●				●
Cyprus	R	M	S		R	M	S	●
Latvia	R	M	S	●				●
Lithuania	R	M	S	●	R	M	S	●
Luxembourg	R	M		●	R	M	S	●
Hungary	R	M	S	●	R	M	S	
Malta	R	M	S	●	R	M	S	●
Netherlands	R	M	S	●				●
Austria	R	M		●	R	M	S	●
Poland	R	M	S	●	R	M	S	●
Portugal	R	M	S	●				●
Romania	R	M	S	●				
Slovenia	R	M	S					●
Slovakia	R	M						●
Finland	R	M						●
Sweden	R	M	S	●	R	M	S	●
Bosnia and Herzegovina	R	M	S					●
Iceland	R	M		●				●
Liechtenstein	R	M		●				●
Montenegro	R	M	S	●				●
North Macedonia	R	M	S	●	R	M	S	
Norway	R	M	S		R	M	S	
Serbia	R	M	S	●				●
Türkiye	R	M	S	●				●

NB: 'R' = reading; 'M' = mathematics; 'S' = science.

(*) No data collection on indicator 1. National tests in compulsory education for the 2021/2022 school year.