

Structural Indicators on Achievement in Basic Skills in Europe – 2016



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This publication is based on a chapter in the Eurydice report <u>Structural Indicators for Monitoring Education and Training Systems in Europe 2016</u>. The report, which was published in November 2016, provides background information to the <u>Education and Training Monitor 2016</u>. It examines education structures, policies and reforms in five key areas:

- 1. Early childhood education and care
- 2. Achievement in basic skills
- 3. Early leaving from education and training
- 4. Higher education
- 5. Graduate employability

The following chapter is re-printed as a separate publication to draw attention to the specific policy area of achievement in basic skills and to reach those who are interested in policy issues in this field.

The information covers 40 European education and training systems. It has been collected through a questionnaire completed by national experts and representatives of the <u>Eurydice Network</u>.

Author EACEA:

Teodora Parveva

Layout and graphics:

Patrice Brel

Contact:

Wim Vansteenkiste, Communication and Publications: Tel. +32 2 299 50 58



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Education, Audiovisual and Culture Executive Agency Education and Youth Policy Analysis
Avenue du Bourget 1 (J70 – Unit A7)
BE-1049 Brussels
Tel. +32 2 200 50 58

Tel. +32 2 299 50 58 Fax +32 2 292 19 71

E-mail: eacea-eurydice@ec.europa.eu Website: http://eacea.ec.europa.eu/eurydice/

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INTRODUCTION

Underachievement in the basic skills of literacy (in the language of instruction), mathematics and science is a concern for many European countries (European Commission, 2013c). It is an issue associated not only with the effectiveness of teaching and learning, but also with providing an equitable system of education. Moreover, becoming fully integrated into society and being able to respond to the changing demands of the competitive global economy is a significant challenge for many young people who have not yet acquired the key basic skills. Recognising the need for targeted action, in 2009 the Council adopted an EU-wide benchmark 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 2020 (1).

However, underachievement, defined as performing below Level 2 in the PISA test, continues to be a serious challenge across Europe. The latest PISA results from 2012 show that 22.1 % of European students had low achievement in mathematics, 17.8 % in reading, and 16.6 % in science (European Commission, 2013c).

The analysis of results of international surveys, as well as other research evidence, point to the complexity of the problem. The importance of out-of-school factors, including students' socio-economic background and the educational level of parents or the language spoken at home cannot be overstated. Significantly reducing the proportion of low achievers, therefore, would require a combined approach that simultaneously targets a range of factors both in and out of school. The following 2016 structural indicators, however, concentrate primarily on factors that can be directly influenced by education policies.



These structural indicators relate to compulsory education, which in the majority of countries corresponds to ISCED 1 and 2 (UNESCO 2012). In this report, underachievement refers to student performance that is below the expected level of attainment. It does not address the provision of support exclusively related to special needs education. The indicators build on several recent Eurydice reports which include extensive reviews of academic research and policy evidence and provide further information on national policies in teaching the basic skills in Europe (²).

A number of constraints needed to be taken into account when constructing the structural indicators on achievement in the basic skills.

⁽¹⁾ Council conclusions of 12 May 2009 on a strategic framework for European cooperation in education and training (ET 2020'), OJ C 119, 28.5.2009.

⁽²⁾ EACEA/Eurydice, Teaching Reading in Europe: Contexts, Policies and Practices (2011d), EACEA/Eurydice, Mathematics Education in Europe: Common Challenges and National Policies (2011a), EACEA/Eurydice, Science Education in Europe: National Policies, Practices and Research (2011c), European Commission/EACEA/Eurydice, Developing Key Competences at School in Europe: Challenges and Opportunities for Policy (2012), European Commission/EACEA/Eurydice/Eurostat, Key Data on Education in Europe (2012).

In the majority of European countries, central education authorities prescribe or recommend measures to tackle underachievement in a range of subjects. However, the level of this involvement varies, ranging from compulsory, comprehensive national programmes to support for a limited number of activities such as teacher training courses, research projects or data banks of learning resources. In some countries, in line with the high degree of decentralisation of the school system and teaching autonomy, the design and implementation of measures to tackle underachievement are left entirely to the discretion of teachers, schools and school providers. In addition, when examining national policies to tackle underachievement, it is often difficult to distinguish between measures to improve the performance specifically in basic skills and measures to improve performance in general (across all subject areas).

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 usually there is more focus on literacy and numeracy, than on science (³).

Moreover, national policies on measures to tackle underachievement, curriculum development, teaching approaches, student assessment and teacher education and training are often non-prescriptive and can lack detail. This is often a direct consequence of the significant degree of school and teacher autonomy, as well as the autonomy of teacher training institutions (⁴).

Therefore, no indicators on curriculum development or teaching approaches have been proposed at this stage. General national guidelines in these areas are not a good indicator of actual practice in the classroom and country averages — on which this exercise is built — do not capture the relevant variations. Moreover, most guidelines on curricula and teaching approaches are specific to each basic skill and therefore have a limited use for the purposes of this project.

1. NATIONALLY STANDARDISED TESTS IN LITERACY, MATHEMATICS AND SCIENCE

National tests used for either summative or formative purposes, or for system monitoring, provide comparable and standardised information about the performance of students, schools and education systems. The information gathered is used to measure and monitor progress and to design improvement measures. This indicator examines the extent to which the three basic skills are assessed in national tests during compulsory education.

In this report **national testing** is defined as 'the national administration of standardised tests and centrally set examinations'. These tests are standardised by the national education authorities or, in the case of Belgium, Germany, Spain and the United Kingdom, by the top-level authorities for education. The procedures for the administration and marking of tests, as well as the setting of content and the interpretation and use of results are decided at central level. National testing is carried out under the authority of a national or centralised body and all examinees take the tests under similar conditions. Tests for detecting developmental problems, which are administered to certain children at the beginning of compulsory education, as well as tests organised for admission to secondary schools that specialise in the teaching of certain specific subjects, are not included. Various standardised

⁽³⁾ For instance, the language of instruction accounts for the largest proportion of instruction time in compulsory education, and this is especially true in primary education. Mathematics represents the second largest share in primary education, and nearly equals that of the language of instruction in secondary education. The proportion of time spent on natural sciences is less significant in primary education but increases considerably in secondary education where it represents the same percentage as for each of the first two subject areas. For further information on instruction time, see European Commission/EACEA/Eurydice (2016a), Recommended Annual Instruction Time in Full-time Compulsory Education in Europe 2015/16.

⁽⁴⁾ For further information on policies on the teaching profession, see European Commission/EACEA/Eurydice (2015a), *The Teaching Profession in Europe: Practices, Perceptions and Policies.*

guidelines and other tools designed to assist teachers in undertaking forms of pupil assessment other than national testing are not included (5).

This indicator includes national testing for both summative and formative purposes. Both compulsory and optional tests are considered, as are sample-based national tests.

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. The national information collected for the 2016 update shows that all European education systems, except Belgium (German-speaking Community) (6), Greece, Croatia and Bosnia and Herzegovina organise nationally standardised tests in compulsory education (see Figure 2.1).

Language of instruction Mathematics Science BE BE BG CZ DK DE EE IE EL ES FR HR IT CY LV LT LU HU MT NL AT PL PT RO SI SK FI SE UK- UK- UK- UK-BA IS ME MK NO RS TR ENG WLS NIR SCT Left Riaht

Figure 1: Standardised national tests in literacy, mathematics and science (ISCED levels 1 and/or 2), 2015/16

Source: Eurydice.

Explanatory note

The figure refers to the national administration of standardised tests and centrally set examinations. Both compulsory and optional tests are considered, as are sample-based national tests.

National test

Rotating subject

The science tests and examinations under consideration cover integrated science subjects and/or the separate subjects of chemistry, biology and physics.

Rotating subjects are not tested on an annual basis but according to a system of rotation determined by the central authorities.

Country-specific notes

Ireland: The language of instruction in any school could be either Irish or English.

ISCED 2

ISCED 1

Spain: The tests reported in this figure were administered in all Autonomous Communities, except the Basque country where no tests were organised in the 2015/16 school year. Science was assessed in all Autonomous Communities, except Catalonia. The Autonomous Communities may administer additional tests.

Luxembourg: The national tests are in German and French, which are the official languages, along with Luxembourgish.

Cyprus: At ISCED 2, the language of instruction, mathematics, science and history are assessed at school level at the end of each school year. Although these tests are not fully nationally standardised, they are prepared following central guidelines on content, duration and assessment by class teachers.

United Kingdom (ENG/WLS/NIR): GCSEs, nationally regulated examinations taken at the end of full-time compulsory education at age 16, are classified as ISCED 3 if five good passes are achieved and therefore not shown in the figure. GCSEs are single subject exams in a range of subjects including English, Welsh for Welsh-speaking schools in Wales, mathematics

In the majority of European countries, standardised national assessments in compulsory education focus on the language of instruction and mathematics, and to a much lesser extent on science. While all countries organise national tests in both the language of instruction and mathematics, around a third of all countries do not organise national tests in science. Moreover, a number of countries

⁽⁵⁾ For further information on national tests see Eurydice, National Testing of Pupils in Europe: Objectives, Organisation and Use of Results (2009a).

⁽⁶⁾ In 2015/16, in Belgium (German-speaking Community), third year students participated in the Vergleichsarbeiten (VERA) test in mathematics and eighth year students in the same tests in reading. In addition, a sample of 15-year-old students participated in the PISA 2015 test.

administer science tests only in lower secondary education (ISCED level 2) or as a rotation subject (see definition under Figure 1) which is not tested annually.

Indeed, national tests in some education systems (Belgium (Flemish Community), Austria, Finland and the United Kingdom (Scotland)) are exclusively based on a system of rotating subjects. This policy is linked to the specific objectives of each test, as well as concerns for balancing the need for performance data with keeping the burden of testing to a minimum.

In **Belgium (Flemish Community)**, the National Assessment Programme (NAP) collects system level information on the share of pupils who reach the attainment targets and developmental objectives. Schools participate in sample-based tests on a voluntary basis. The tested subjects (mathematics for the 2015/16 school year) are determined according to a rotation system determined by the central authorities.

In **Germany**, in the framework of the *Ländervergleich* (National Assessment Study – NAS) German, mathematics and science are tested on a rotation basis. In school year 2015/16, German was tested at ISCED levels 1 and 2 and mathematics at ISCED level 1. In addition, German or mathematics are tested annually through the *Vergleichsarbeiten* (VERA) tests, depending on the choice of the individual *Länder*.

In **Austria**, national tests in the language of instruction and mathematics are organised according to a rotation system determined by the Federal Ministry of Education. In the 2015/16 school year, German was tested in grade 8.

In **Finland**, student achievement tests in compulsory education involve 5-10 % of all basic education schools. Tests usually cover only one subject on a rotating basis, either language of instruction, or mathematics, or less often, a third subject or cluster of subjects according to national priorities. In school year 2015/16, mathematics, Sámi, Romany and sign language were tested.

In the **United Kingdom (Scotland)**, the Scottish Survey of Literacy and Numeracy (SSLN) is a voluntary annual sample survey which monitors national performance in literacy and numeracy in alternate years (literacy for school year 2015/16). The survey involves 8 % of pupils at two stages within ISCED 1 (P4 and P7) and one stage within ISCED 2 (S2).

Recent policy developments

National tests are shaped by and evolve in accordance with national policy agendas and educational structures. In the past few years, national authorities in some European countries have moved from pilot national tests to the establishment of regular testing systems (the Czech Republic, Spain and Austria). Other countries have added new tests in specific years (Spain, Latvia, Lithuania, Sweden and the United Kingdom – England and Scotland). In Croatia, national testing has been discontinued.

In Ireland, at primary level, all schools are required to administer standardised tests annually and to submit the aggregated results to the Department of Education and Skills (DES) in English and in Mathematics; and in Irish-medium schools, in English, Irish, and Mathematics. In addition, the Educational Research Centre (ERC), on behalf of the DES, carries out national surveys of achievement in a representative sample of primary schools every five years, in English and in Mathematics. These national assessments do not have an effect upon students' progression or certification. At the end of lower secondary level, Language 1 (mother tongue), mathematics and science are tested in the Junior Certificate examination. It is proposed to expand this in the coming years by the introduction of national standardised tests in these three areas outside of these state examinations.

In **Spain**, the gradual implementation of the assessment system of key basic competences (7) includes the organisation of national tests in the language of instruction, mathematics and science in grade 6 of primary education (ISCED 1) in school year 2015/16.

In **Latvia**, a new science diagnostic test in year 9 took place in February 2016. It focuses more attention on science knowledge and evaluates student abilities to solve practical problems in the natural sciences as recommended in the Education Development Guidelines 2014-2020.

In **Lithuania**, participation in national tests in years 2, 4, 6 (from school year 2015/16) and 8 is not compulsory and could be initiated by schools or municipalities. The aim is 1) to identify the strong and weak points of participating schools or municipalities and 2) to take appropriate measures to improve the situation. All tests, except the one in year 8, are provided in Lithuanian, Russian and Polish.

^{(&}lt;sup>7</sup>) Calendario de implantación de la LOMCE (implementation timeline) http://www.mecd.gob.es/educacion-mecd/mc/lomce/lomce/calendario.html

In the United Kingdom (England), revised tests have been developed for use from 2016. They reflect the content of the new National Curriculum in English and mathematics. The biennial sampling test for science, administered for the second time in 2016, was also reviewed against the new curriculum.

In the United Kingdom (Scotland), as part of the National Improvement Framework for Scotlish Education (8), the Scotlish Government is planning to introduce standardised national assessments in literacy and numeracy for pupils in P1, P4, P7 and S3. The data from assessments will sit alongside a range of evidence to support teacher judgement data on the achievement of literacy and numeracy levels. The assessments will be piloted in 2016 and introduced in 2017. Over time the new assessments will replace the SSLN.

In two countries national tests have been either discontinued or made optional.

In Croatia, a pilot project on national testing on a rotation basis, which was run by the National Centre for External Evaluation of Education, came to an end in 2015. There are no immediate plans to resume national testing.

In Sweden, from January 2016, national tests in sciences are no longer compulsory at ISCED 1. Optional national tests are accessible to schools in a national database, but mandatory tests in these subjects now only apply to ISCED 2.

2. RECENT NATIONAL REPORTS ON ACHIEVEMENT IN BASIC SKILLS

Collecting evidence and publishing reports at national level on performance trends, factors contributing to underachievement, and effective approaches for raising attainment can provide significant support for the policy making process. This indicator relates to such reports published since 2011, which focus exclusively on achievement in basic skills or include achievement in one or more of these skills as a main topic.

The majority of European countries publish national reports on achievement in each of the basic skills (see Figure 2) based on national performance data.



Source: Eurydice.

Explanatory note

The figure refers to national reports on student achievement in either ISCED 1 and/or 2 published since 2011. These reports are based on national data and/or international survey data.

In several countries, the PISA tests take place in ISCED level 3.

In many cases, these reports are complemented by reports based on the country results from international surveys such as PISA, TIMSS and PIRLS. Only in Bosnia and Herzegovina are there no recent national reports on achievement in basic skills based on this type of national or international information. In around a third of countries, national reports are based solely on the results of international surveys.

National improvement framework for Scottish education - achieving excellence and equity (Scottish Government, January 2016) at http://www.gov.scot/Publications/2016/01/8314/downloads#res491758

In terms of the competences 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. In the area of science, only a third of countries have produced reports based on national sources of information. An equal number of countries rely only on the results of international surveys (PISA and others) and a third group do not report any recent analyses of student performance in science.

The sources, scope and content of recent reports vary greatly. The following country examples provide illustrations of some of the existing practices in European education systems.

In **France**, a number of briefing notes summarise the main results of the sample subject tests CEDRE (*Cycle des évaluations disciplinaires réalisées sur échantillon*). These tests take place every six years for the same subject and evaluate student performance at the end of primary and lower secondary education. For instance, the 2014 CEDRE tests in mathematics point to the fact that students have very diverse attainment levels at the start of lower secondary education. At the end of lower secondary education the test results reveal that there is a sharp rise of the proportion of low achievers (⁹).

In **Spain**, there have been no recent reports based on national sources. However, several recent reports have analysed the PISA 2012 country data. The results show that the performance of Spanish students in the three basic skills remains stable in comparison with earlier PISA tests. It is significantly below the OECD average in all three areas. In terms of equity, it is apparent that the variability in students' performance is associated with individual characteristics rather than with the institutional characteristics of the school. School autonomy is still much lower in Spain than the average for OECD countries (10).

In **Lithuania**, the results of the 2014 National Survey of Student Achievement revealed that 4th graders perform poorly in reading and 8th graders in mathematics. Other important results include increasing differences in achievement between students from metropolitan/urban schools and those in rural areas, very low skills in finding information and self-regulation and self-evaluation, as well as insufficient levels of individualised learning and support (11).

In the **Netherlands**, the government has developed the benchmark framework for literacy and numeracy skills. The latest report on progress towards the benchmarks was published in October 2015. In addition, the inspectorate of education produces an annual education report on the performance of students and schools in primary and secondary education (¹²).

In the **United Kingdom (Wales)**, the Programme for Government 2011-2015 set a number of targets for the education system including: the percentage of children achieving the expected level of learning or above at the end of the Foundation Phase (age 7); Key Stage 4 results (age 16); and performance in OECD PISA (age 15). Performance against the goals was mapped both to assess how Wales was performing as a country (outcome indicators) and how actions taken by the Welsh Government made a different (tracking indicators). A new Government took office in May 2016 and has not yet announced how it will measure progress.

USE OF STUDENT PERFORMANCE DATA IN EXTERNAL SCHOOL EVALUATION

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 could include different types of student performance data. The evaluation process usually results in evaluators issuing a set of judgements and recommendations. Depending on the national context, this may trigger the implementation of a variety of remedial and support actions to help schools address any shortcomings or weaknesses (¹³).

^{(*) &}lt;a href="http://www.education.gouv.fr/cid81218/methodologie-du-cycle-des-evaluations-disciplinaires-realisees-sur-echantillon-cedre-en-fin-de-cole-et-fin-de-college.html">http://www.education.gouv.fr/cid81218/methodologie-du-cycle-des-evaluations-disciplinaires-realisees-sur-echantillon-cedre-en-fin-de-college.html

⁽¹⁰⁾ See for instance PISA 2012. Spanish report. Results and context. 2013. Volume I. National Institute of Educational Evaluation at: http://www.mecd.gob.es/dctm/inee/internacional/pisa2012/pisa2012.pdf?documentId=0901e72b8195d643

⁽¹¹⁾ National Survey on Students' Achievement 2012. http://www.nec.lt/failai/4681 Apzvalga NMPT2012.pdf

⁽¹²⁾ http://www.onderwijsinspectie.nl/binaries/content/assets/Onderwijsverslagen/2015/onderwijsverslag-2013-2014.pdf

⁽¹³⁾ For further information on national policies on school evaluation, see European Commission/EACEA/Eurydice (2015b), Assuring Quality in Education: Policies and Approaches to School Evaluation in Europe.

The **external evaluation of schools** is conducted by evaluators who report to a local, regional or central/top level education authority; they are not directly involved in the activities of the school under evaluation. This type of evaluation covers a broad range of school activities, including teaching and learning and/or all aspects of school management. Evaluation which is conducted by specialist evaluators and is concerned solely with specific administrative tasks (related to accounting records, health, safety, archives, etc.) is not regarded as external school evaluation (¹⁴).

In the vast majority of countries where the external evaluation of schools is practised, evaluators take student performance data into account in order to form their judgement on school quality (see Figure 3).

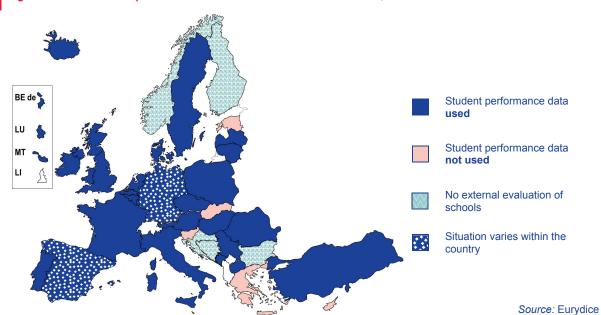


Figure 3: Use of student performance data in external school evaluation, 2015/16

Explanatory note

The figure shows whether student performance data is used as an information source in external school evaluation.

The category 'situation varies within the country' applies to Germany and Spain and reflects the federal structures in these countries

Country-specific notes

Germany: School inspectors use student performance data in 5 of the 16 *Länder*. **Spain**: School inspectors use student performance data in 13 of the 17 Autonomous Communities and in Ceuta and Melilla.

This is not the case in Estonia, Greece, Cyprus, Slovenia and Slovakia, where external school evaluation is concerned with school processes and compliance with regulations. Moreover, several countries do not carry out any external school evaluation (Bulgaria, Croatia, Finland, Bosnia and Herzegovina, and Norway).

The **student performance data** used in external school evaluation may include students' results in centrally set examinations and nationally standardised assessments. Also used are student results in teacher assessment; data on student progression through school; student results in international surveys; as well as, although less frequently, outcomes in the job market and student or parent satisfaction.

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⁽¹⁴⁾ Ibid, p. 54.

In **Denmark**, information used in school inspections includes, amongst other things, each school's pupil achievement results, including performance in national tests and final examinations and statistics on the transition to secondary education; these are benchmarked against national averages.

In **Ireland**, for ISCED 1, performance data includes the results of standardised tests and data on student progression. For ISCED 2, this data comprises results in centrally set examinations, results in teacher assessment; and data on student progression. None of this data is published in any evaluation reports but may be used to inform the evaluation.

In **Portugal**, the key data in the external evaluation of schools is student performance in nationally standardised examinations. Attainment targets are determined using contextual variables such as the age of the students; parents' educational background, socio-economic status, stability of teaching staff, and class size.

Recent policy developments

The majority of European countries do not report any recent policy developments in this area, except for the rolling out of the national evaluation system in Italy.

In Italy, the implementation of the National System for Evaluation of Schools (SNV) started in 2014/15 with the introduction of mandatory school self-evaluation, where student performance data (results of the annual INVALSI tests) are one of the elements taken into consideration. From the 2015/16 school year, the school self-evaluation report will be followed by an external evaluation, coordinated by an inspector. The external teams aim to visit up to 10 per cent of all schools each year. The school self-assessment report and the results of the improvement process over a three-year evaluation cycle will be made public.

4. CENTRAL GUIDELINES ON ADDRESSING STUDENT UNDERACHIEVEMENT IN INITIAL TEACHER EDUCATION (ITE)

There is a well-documented link between the quality of teaching and teacher education on the one hand and student attainment on the other (OECD 2005). Effective teaching depends to a large extent on the expertise of teachers; consequently their knowledge of the subject and their professional training are crucial.

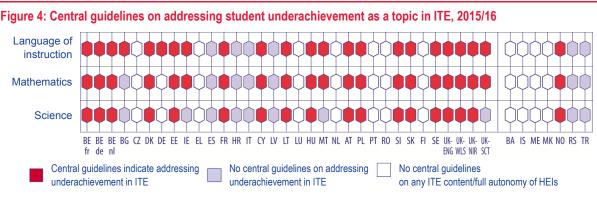
Teachers' ability to deal with student difficulties and their skills in managing students with a range of different abilities and needs are crucial. A number of countries stipulate that such competences should be acquired during initial teacher training programmes. The Council conclusions on effective teacher education from 20 May 2014 emphasise the importance of teachers' skills and encourage European countries to promote the development of 'comprehensive professional competence frameworks for teachers' (15).

This indicator shows whether central level regulations, recommendations or guidelines for ITE programmes identify any final competences related to the knowledge and skills needed for addressing underachievement in basic skills or whether higher education institutions have full autonomy with regard to the content of ITE programmes.

The majority of European countries that provide central level regulations, recommendations and/or guidelines for ITE programmes specify that prospective teachers should learn how to address student difficulties during their training (see Figure 4). However, in some cases, only general guidelines are provided without specifying particular subjects. Again, science, rather than the language of instruction/mother tongue or mathematics, is the area that is less likely to be mentioned explicitly. It is also significant that in twelve countries, higher education institutions are completely autonomous in determining the content of their teacher education programmes.

⁽¹⁵⁾ Council conclusions of 20 May 2014 on effective teacher education, OJ C 183, 14.6.2014.

For instance, in the **Netherlands**, all initial teacher education programmes are expected to address low achievement, as the ability to differentiate between levels of skill are part of the required teacher competences. There are, however, no central guidelines on how ITE programmes must address this, or on any ITE content. Teacher training institutions have, however, drawn up their own guidelines on the minimum knowledge that should be covered in the different ITE programmes. These guidelines are called 'knowledge bases'.



Source: Eurydice.

Explanatory note

The figure shows the existence of central level regulations, recommendations or guidelines on addressing student underachievement in ITE programmes.

Country-specific notes

Belgium (BE de): Initial teacher education for lower secondary level is provided outside the German-speaking Community. Most teachers are trained in the French Community of Belgium.

Czech Republic and Romania: No central guidelines exist but initial teacher training institutions usually include this topic in their study programmes.

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 **Belgium (French Community)**, the central authorities prescribe the minimum amount and content of courses in initial teacher education. Prospective teachers are required to take a course of 30 hours on differentiated learning, detection of learning difficulties and remedial action. In addition, some higher education institutions offer related training.

In **Belgium (Flemish Community)**, central level regulations stipulate the competences that a beginning teacher should possess according to the level of education. Each set of competences consists of ten 'job components', which include competences to deal with student difficulties, although none of them is written in a subject specific context.

In **Poland**, the central guidelines for teacher training standards are stipulated in the Regulation by the Minister of Science and Higher Education of 17 January 2012 on initial teacher training standards. This Regulation defines both general and detailed learning outcomes for initial teacher education. Among others, the regulation refers to competences related to:

- diagnosis of pupils' individual needs;
- learning difficulties and underachievement at school;
- undertaking individual work with pupils including those with SEN;
- adapting teaching to pupils' needs and abilities, including the specific progress of pupils with SEN and or those with a
 different ethnic or national background, immigrants and others;
- learning difficulties prevention, diagnosis, psychological and pedagogical support.

In the **United Kingdom (Scotland)**, the General Teaching Council for Scotland (GTCS) publishes the Guidelines for initial teacher education programmes in Scotland. The guidelines state that: 'Programmes must prepare teachers to be responsive to the range and diversity of the needs of all pupils including those with additional support needs. ITE programmes will therefore develop in student teachers, broad knowledge of the nature and range of additional support needs, effective ways of supporting those with such needs and knowledge of inclusion and equalities legislation' (16).

⁽¹⁶⁾ http://www.gtcs.org.uk/web/FILES/about-gtcs/guidelines-for-ite-programmes-in-scotland.pdf

Recent policy developments

In terms of recent policy developments, in some countries, the central guidelines on initial teacher education and teacher competences are being updated to take into account new policy documents and reforms. However, these changes rarely concern specific recommendations for the areas or topics to be covered in ITE programmes.

In **Austria**, in the context of the 'New Teacher Training Scheme' a central guideline on professional competences of teachers is being implemented from the 2015/16 school year. This document puts more emphasis on addressing low achievement which is treated as a general issue, without specifying subjects. HEIs have limited autonomy and curricula are drafted by the university colleges of teacher education and are approved by the *Qualitätssicherungsrat* (Quality Assurance Council), as well as the ministry.

In **Hungary**, the 'Training Outcome Requirements' Ministerial decree was last modified in December 2014. The specifications for teacher training topics and competences include references to 'teachers' tasks regarding pupils who may be disadvantaged or discriminated against, and pupils with special education needs'. It covers the 'background and stages of special educational needs, differentiated instruction, principles of inclusive pedagogy, methods of integration and development strategies for low achieving pupils' (17). However, teacher training institutions enjoy a high degree of autonomy regarding the content and organisation of study programmes and therefore the focus given on underachievement varies greatly.

In **Ireland**, in light of the implementation of the 2011 *National Strategy to Improve Literacy and Numeracy among Children and Young People*, central guidance and requirements are being extended across teacher education at ISCED levels 1 and 2 and in pre-school contexts also. Many initial teacher education programmes have had an additional year provided, which will lead to an extra focus on teaching for literacy and numeracy, though not science.

5. ADDITIONAL SUPPORT FOR SCHOOLS ENROLLING LARGE NUMBERS OF DISADVANTAGED STUDENTS

Research evidence and data from international surveys point to the fact that disadvantaged students are much more likely to be underachievers. The analyses of PISA 2012 demonstrate that poor performance at age 15 results from the cumulative effects of a range of disadvantages. Risk factors include aspects of a student's background, as well as school composition, the learning environment and the availability of resources (OECD, 2016).

This indicator examines whether central education authorities allocate additional resources to schools that enrol large numbers of disadvantaged students. The scope of the indicator, for which data is collected for the first time, is in line with the conclusions that have been reached by the ET 2020 Thematic Working Groups on Basic Skills and Early School Leaving (¹⁸).

There are a number of links that can be established between policies that seek to address underachievement in the basic skills and early leaving from education and training. Therefore, it is useful to consider measures in these two areas in parallel (¹⁹). Moreover, it should be noted that the present indicator on additional support to schools is related to an earlier Eurydice indicator on the existence of positive discrimination policies/measures to reduce early school leaving (²⁰). The previous focus on policies such as educational priority zones and similar initiatives to support students and schools in disadvantaged areas has been now enlarged.

^{(17) 15/2006. (}IV. 3.) OM rendelet az alap- és mesterképzési szakok képzési és kimeneti követelményeiről.

^{(&}lt;sup>18</sup>) The Thematic Working Groups on Mathematics and Science Education and on Early School Leaving (reports: http://ec.europa.eu/education/policy/strategic-framework/doc/esl-group-report_en.pdf).

^{(&}lt;sup>19</sup>) For a review of structural indicators in early leaving from education and training see European Commission/EACEA/Eurydice, (2016b). Structural Indicators for Monitoring Education and Training Systems in Europe – 2016, chapter 3.

⁽²⁰⁾ European Commission/EACEA/Eurydice/Cedefop, 2014. Tackling Early Leaving from Education and Training in Europe: Strategies, Policies and Measures. p. 57-59.

In this report, **additional support to schools** refers to nationally allocated financial and/or other resources that require additional funding (extra educational staff, special allowances, professional development opportunities, reduced teaching time, scholarships, career advice services, etc.). The central education authorities can allocate these resources to the regional, local or school level directly.

Disadvantaged students (groups at risk or vulnerable groups) are defined at national level. Possible criteria are socio-economic status, ethnic origin, having a migrant background or others depending on the national context.

Socio-economic status refers to a combined economic and sociological measure of an individual's or his/her family's economic and social position relative to others, based on income, education, and occupation. Parents' educational attainment is often taken as a proxy measure for socio-economic status.

Figure 5.1 provides an overview on whether or not central education authorities allocate additional resources to schools that enrol large numbers of disadvantaged students. Across Europe, such resources are provided in around two thirds of all education systems and there are a variety of approaches in terms of the organisation of the support, the target groups and actions funded.

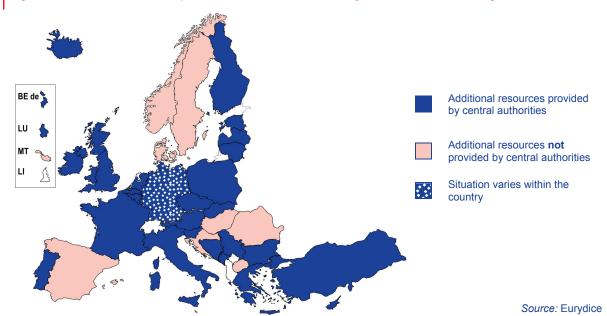


Figure 5.1: Additional resources provided to schools that enrol large numbers of disadvantaged students, 2015/16

Explanatory note

The figure shows whether central education authorities allocate additional financial and/or other resources to schools that enrol large numbers of disadvantaged students.

The category 'situation varies within the country' applies to Germany and Spain and reflects the federal structures in these countries.

Country-specific note

Germany: Almost all *Länder* have provisions for the allocation of additional funds for schools that enrol large numbers of disadvantaged students. Nine *Länder* use clearly defined indicators for this.

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.

In **Finland**, the central authorities pay an increased government transfer to education providers who are, in most cases, local authorities (not schools directly). Education providers can also apply for subsidies for specific purposes such as additional classes in the language of instruction (Finnish or Swedish) for students whose mother tongue is different, or for additional instruction in the students' mother tongue in other subjects.

In terms of the allocation methods for the additional funds, there is a great diversity of approaches. It appears that most often schools receive lump sums automatically and in addition they can apply for specific funding.

In **Poland**, various types of additional support are distributed through local, regional and central authorities. Based on the data in the Education Information System, local authorities receive additional funds (education subsidy) automatically. Local authorities decide on the amounts to be allocated to individual schools. In addition, funds for social grants and academic achievement grants, as well as social benefits are distributed as part of government programmes. Moreover, NGOs and local authorities can apply to the Ministry of National Education for funds from the government programme for the integration of the Roma community (2014-2020) and for the implementation of duties such as support for refugees and national minorities.

In several countries (Bulgaria, Greece, Italy, the United Kingdom (Scotland), Bosnia and Herzegovina, Iceland and Serbia), the only way for schools to receive additional funding is by applying to the central authority or other education authorities.

In **Italy**, funding is distributed following applications in response to open calls published by the Ministry of Education. For instance in school year 2015/16, additional support is allocated via projects to improve the integration of disabled students, unaccompanied foreign minors, Roma and other disadvantaged groups, as well as for preventing early school leaving in peripheral metropolitan areas with high rates of school drop out.

In rare cases, additional support is provided to students on an individual basis only and is not linked to the proportion of disadvantaged students in any given school. This is the practice in Austria where individual support concerns students from a migrant background who lack German language skills and SEN students.

In the cases where the central authorities **do not** allocate additional resources (Denmark, Spain, Croatia, Hungary, Malta, Romania, Sweden, the former Yugoslav Republic of Macedonia and Norway), there are a number of alternative approaches. Several countries note that the financing of schools, including the re-distribution of additional resources for disadvantaged students, is devolved at the level of autonomous communities (Spain), *Länder* (Germany) or municipalities (Denmark, Sweden and Norway).

In **Spain**, the Autonomous Communities are responsible for providing resources to schools that enrol large numbers of disadvantaged pupils. Typically these resources are used to fund support programmes, introductory classes, 'preferential' teaching positions and schools.

In **Norway**, the share of immigrant children in each municipality is taken into account in the formula for calculating the annual grant. The municipalities allocate the funds to schools.

In other countries, additional resources for these purposes are provided mainly through social programmes (Romania) or EU and other international projects (the former Yugoslav Republic of Macedonia). In certain cases (Denmark, Hungary and Serbia), central level support is not financial, but focuses on reinforcing the professional development of teachers, providing remedial classes and other educational support.

In **Denmark**, the municipalities are responsible for the funding of schools. The Ministry of Education supports the efforts of the schools with disadvantaged students through other means such as the provision of targeted in-service training for teachers for the inclusion of SEN and bilingual pupils. The teaching of bilingual pupils has been included in the mandatory initial teacher training. As

part of the 2014 school reform, a national corps of 'learning consultants' and a related resource centre have been established. A further project concentrates on 'what works' in improving the skills of disadvantaged students in reading and mathematics.

In **Hungary**, schools have no financial autonomy and they do not receive any additional budget. Central authorities do not allocate additional funding but finance catch-up classes which have an impact on the number and the workload of teachers (up to 32 hours per week). All schools are eligible for additional catch-up classes.

Figure 5.2 focuses on the student characteristics on which the allocation of additional resources is based.

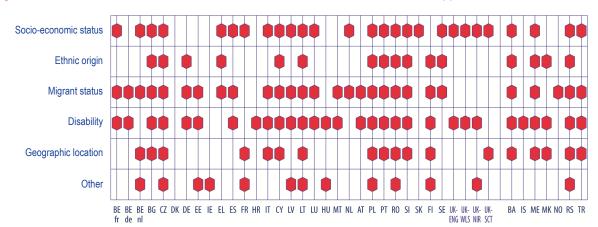


Figure .5.2: Student characteristics taken into account in the allocation of additional support to schools, 2015/16

Source: Eurydice.

Across Europe, most commonly, additional support is linked to socio- economic background, migrant status and disability. Criteria like geographical location and ethnic origin are used less often. In some countries, additional characteristics like attainment (Hungary, the United Kingdom (Northern Ireland)), grade repetition (France), behavioural problems (Estonia, Poland) and education background of parents (Finland) are also taken into account.

The majority of countries include several categories in the wider group of 'disadvantaged' students.

In **Lithuania**, schools are funded on the principle of *the money follows the pupil*. Each pupil's 'basket' is increased by between 20 % and 35 % if the pupil belongs to an ethnic minority group, is a migrant, attends a school in a multilingual area, or has special education needs. Social support is provided separately by the local authorities.

In the **Netherlands**, the central authorities allocate extra funds for students who have learning disabilities, reside in deprived neighborhoods, or are new entrants to the system (recently arrived immigrants, asylum seekers and others). For example, the definition of a 'new entrant' (*nieuwkomer*) in secondary education is a student who has been in the Netherlands for less than two years and does not have Dutch nationality. The size of the grant depends on how long the student has already been living in the Netherlands. The extra funding is EUR 5 100 per student who has been in the Netherlands for less than a year. It is up to the school to spend the extra funding as it sees fit and to select the most suitable type of education for the new pupil.

In the **United Kingdom**, the Pupil Premium in **England** and the Pupil Deprivation Grant in **Wales** are allocated to schools on the basis of the number of pupils eligible for free school meals. In **England**, schools receive extra Pupil Premium for looked after children (those in the care of the local authority) and those whose parents serve in the armed forces.

In **Turkey**, additional funds and other support are available through the Ministry of National Education, the Ministry of Finance and the Ministry of Family and Social Policies. In this context, certain types of schools (boarding schools, special education and rehabilitation centres, special education schools, mobile schools, schools and temporary training centres for Syrian refugees) are supported centrally.

However, several countries allocate additional support to students in a single category. For instance, this could be low socio-economic background (Slovakia) or disability (Croatia and Norway).

Some countries combine information from several data sources in order to identify the schools that are eligible to receive additional support.

In **Belgium (Flemish Community)**, participating schools are identified on the basis of four indicators that have a noticeable impact on school careers: education attainment of the mother, entitlement for a study grant (means-tested basis), language spoken at home and, in the case of operational budgets, place of residence.

In **France**, the Ministry of Education, Higher Education and Research has constructed a **social index** that measures the social difficulties of students and parents and the impact on learning. This index is used to identify the schools eligible for additional support. It is linked to the share of students in each of the following categories:

- parents in disadvantaged social and professional categories;
- students receiving scholarships;
- students residing in 'sensitive urban zones';
- students that have repeated grades before the start of secondary education.

In **Ireland**, the aim of the DEIS (Delivering Equality of Opportunity in Schools) programme is to ensure that the educational needs of students from disadvantaged communities are prioritised and effectively addressed. The following criteria were used to identify schools for inclusion in DEIS:

- In the primary sector, the identification process was based on a survey carried out by the Educational Research
 Centre (ERC) in May 2005. The analysis of the survey identified the socio-economic variables that collectively best
 predict achievement: unemployment, local authority accommodation, lone parenthood, travellers, large families (5 or
 more children) and pupils eligible for free books.
- For second-level schools, the ERC analysed centrally-held data on attainment and retention from the Post-Primary Pupils and State Examinations Commission databases. Medical card data (2002-2004) for Junior Certificate postprimary candidates was also used.

A review of the DEIS Programme including the identification criteria is taking place in school year 2015/16.

In contrast, in **Serbia**, the categories of disadvantaged students are not defined at national level. The evaluation process is highly individual and focuses on the need for additional learning support rather than the origins of these needs. The assessment considers but is not limited to the characteristics listed in Figure 5.2.

Another interesting aspect of policies for additional support concerns the types of activities that are being funded. Figure 5.3 provides an overview of the typical activities funded as part of the support for schools that enrol large numbers of disadvantaged students.

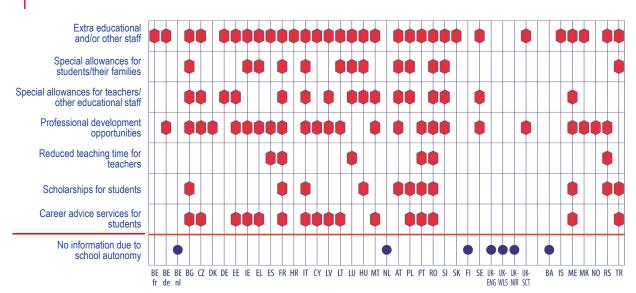


Figure 5.3: Activities funded by additional resources, 2015/16

Source: Eurydice.

Explanatory note

The category 'No information due to school autonomy' refers to the cases where schools are free to spend the allocated funds as they see fit.

Targeted funds are used most often to provide additional staff – educational or other professionals. These staff are involved in remedial and additional language classes (Germany and Poland); providing support for SEN pupils, Roma pupils (Bulgaria, Slovenia and Montenegro) and students at risk of early school leaving (Portugal). In addition, specialist support is provided by psychologists, speech therapists and other specialists.

In **France**, several categories of additional education and other staff are employed in schools with large numbers of disadvantaged students: an extra teacher in every primary school in a priority zone, extra staff to cover the longer school day and help with homework, technical advisers at each *académie* and in some *départements*, coordinators of local networks of *académies*, prevention and security officers to improve the school climate as well as additional nurses and social workers.

In **Poland**, funding is used for additional Polish language tuition, teaching of a national or ethnic minority language, teaching of ethnic/minority history and culture and provision of additional remedial classes in compulsory subjects. Teachers specialised in SEN, support teachers, specialists (psychologists, behaviour therapists, sign language translators, etc.) or non-pedagogical employees are employed in integrated and mainstream schools/classes. Teaching assistants can be employed in all types of primary schools in grades 1-3 as well as in day care units in schools to support teachers and carers in their duties.

Another wide-spread policy option is the creation of specific professional development opportunities to improve teachers' competences in providing inclusive education.

In **France**, the government has launched a special plan for the continuing professional development and support of teachers in priority zones. Staff who work in the most difficult areas are guaranteed to have three days of training per year. Additional mentoring for new teachers and special training for executive staff (management staff, inspectors and school heads) are also provided.

Measures related to career advice services are also widely reported.

In Latvia, career education support is part of the curriculum. In some schools, career support is provided by a teacher-career consultant. In 2017, schools will have one consultant for 700 students. Preparations have started for the implementation of the 'Career Education Implementation Plan for State and Local General and Vocational Educational Institutions for 2015-2020', which

was adopted in December 2015. It also envisages career guidance support for students with health and learning disabilities, including career information, education and advice (21).

Special allowances for students/and or their families, or scholarships are reported less. This could be due to the fact that in some cases such allowances are provided directly to families and schools are not involved.

Special allowances for teachers or other education staff are used in around a third of European education systems.

In **France**, in 2015, the special allowances for all teachers in priority education have been increased by 50 %. Teachers in the most difficult areas have received a 100 % increase. Further benefits in terms of career advancement are being planned.

The option of reducing teaching time is much less popular and has been reported by only six countries.

In **Serbia**, in some secondary schools with a high number of Roma students, teachers act as mentors and monitor students' achievements, socialisation process and participation in classes. Mentors are exempt from some school activities. Although the mentorship programme is in the pilot phase and sponsored through IPA funds, new regulations at central level on this matter are expected in near future.

The central authorities in several countries (Belgium (Flemish Community), the Netherlands, Finland, the United Kingdom (England, Wales and Northern Ireland) and Bosnia and Herzegovina) do not centrally collate information about all activities that are funded, as schools spend funds as they deem most appropriate.

Nevertheless, in some cases information on funded activities is available through various monitoring and reporting mechanisms.

In the **United Kingdom (England)**, schools can use the Pupil Premium flexibly, in the best interest of eligible pupils. Schools must publish details of how they spend the Pupil Premium and the effect this has had on attainment. Reports by Ofsted (²²) and the NFER (²³) show that the most frequent use of the funding is to pay for additional staff to deliver one-to-one support and small group tuition, typically in English and mathematics. Additional staffing is also used for interventions such as booster classes, reading support or 'raising aspiration' programmes, and to reduce the size of classes. In secondary schools, the funding is frequently used to employ 'learning mentors'. The funding is also commonly used to enable eligible pupils to participate fully in after-school clubs and activities and to provide financial support for educational visits.

Similarly in the **United Kingdom (Wales)**, schools are free to decide how to spend the Pupil Deprivation Grant. It must be used to support disadvantaged students, but does not have to be tracked to those learners. The grant may also be used for whole-school strategies that disproportionately benefit disadvantaged students. Based on research evidence, schools are provided with examples of activities that have significant impact (24).

⁽²¹⁾ http://likumi.lv/doc.php?id=278999

⁽²²⁾ The Pupil Premium: an update

⁽²³⁾ Supporting the attainment of disadvantaged pupils: Articulating success and good practice

^{(24) &}lt;u>Guidance for using the Pupil Deprivation Grant: What really works?</u>

<u>Making effective use of the pupil deprivation grant a resource for education leaders and practitioners</u>

GLOSSARY

Country codes

EU/EU-28	European Union	NL	The Netherlands
BE	Belgium	AT	Austria
BE fr	Belgium – French Community	PL	Poland
BE de	Belgium – German-speaking Community	PT	Portugal
BE nl	Belgium – Flemish Community	RO	Romania
BG	Bulgaria	SI	Slovenia
CZ	Czech Republic	SK	Slovakia
DK	Denmark	FI	Finland
DE	Germany	SE	Sweden
EE	Estonia	UK	United Kingdom
IE	Ireland	UK-ENG	England
EL	Greece	UK-WLS	Wales
ES	Spain	UK-NIR	Northern Ireland
FR	France	UK-SCT	Scotland
HR	Croatia		
IT	Italy	EFTA/EEA	and Candidate countries
CY	Cyprus	BA	Bosnia and Herzegovina
LV	Latvia	ME	Montenegro
LT	Lithuania	MK*	Former Yugoslav Republic of Macedonia
LU	Luxembourg	NO	Norway
HU	Hungary	RS	Serbia
MT	Malta	TR	Turkey

MK*: ISO code 3166. Provisional code which does not prejudge in any way the definitive nomenclature for this country, which will be agreed following the conclusion of negotiations currently taking place under the auspices of the United Nations (http://www.iso.org/iso/country_codes/iso_3166 code lists.htm)

Key definitions

Additional support to schools refers to nationally allocated financial and/or other resources that require additional funding (extra educational staff, special allowances, professional development opportunities, reduced teaching time, scholarships, career advice services, etc.). The central education authorities can allocate these resources to the regional, local or school level directly.

Disadvantaged students (groups at risk or vulnerable groups) are defined at national level. Possible criteria are socio-economic status, ethnic origin, having a migrant background or others depending on the national context.

Early leaving from education and training (ELET) refers to all forms of leaving education and training before reaching the end of upper secondary level and an equivalent school leaving certificate. This broad definition encompasses countries' own definitions of who in the national context is considered to be an early leaver. It includes, for example, countries who refer to young people who leave (or drop out of) school without completing what is considered in the national context as basic education (usually primary and secondary education), as well as those who define early leavers as young people who leave school without an upper secondary school leaving certificate.

External evaluation of schools is conducted by evaluators who report to a local, regional or central/top level education authority; they are not directly involved in the activities of the school under evaluation. This type of evaluation covers a broad range of school activities, including teaching and learning and/or all aspects of school management. Evaluation which is conducted by specialist evaluators and is concerned solely with specific administrative tasks (related to accounting records, health, safety, archives, etc.) is not regarded as external school evaluation (European Commission/EACEA/Eurydice, 2015a).

Initial teacher education (ITE) comprises both pre-service, general education and professional training. The latter provides prospective teachers with both a theoretical and practical insight into their future profession. In addition to courses in psychology and teaching methods, it usually includes unremunerated in-school placements.

National testing is defined as 'the national administration of standardised tests and centrally set examinations' (Eurydice, 2009a). These tests are standardised by the national education authorities or, in the case of Belgium, Germany, Spain and the United Kingdom, by the top-level authorities for education. The procedures for the administration and marking of tests, as well as the setting of content and the interpretation and use of results are decided at central level. National testing is carried out under the authority of a national or centralised body and all examinees take the tests under similar conditions.

Language of instruction refers to the main language that is officially used in education at ECEC and school level. It may not be the first or home language for all pupils.

Socio-economic status of students is defined as a combined measure of students' or their families' economic and social position relative to others, based on income, education, and occupation. When analysing a family's socio-economic status, the household income (combined and individual) is examined as well as the education and occupation of earners. Parents' educational attainment is often taken as a proxy measure for socio-economic status.

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Structural Indicators on Achievement in Basic Skills in Europe - 2016

This publication reviews key structures, policies and reforms in the area of achievement in the basic skills (literacy, mathematics and science). It contains five indicators on policies for organising nationally standardised tests, producing national reports on achievement, using student performance data in school evaluation, addressing underachievement in initial teacher education programmes and providing additional support for schools that enrol large numbers of disadvantaged students. The publication is based on a chapter in the Eurydice report Structural Indicators for Monitoring Education and Training Systems in Europe 2016.

The Eurydice Network's task is to understand and explain how Europe's different education systems are organised and how they work. The network provides descriptions of national education systems, comparative studies devoted to specific topics, indicators and statistics. All Eurydice publications are available free of charge on the Eurydice website or in print upon request. Through its work, Eurydice aims to promote understanding, cooperation, trust and mobility at European and international levels. The network consists of national units located in European countries and is co-ordinated by the EU Education, Audiovisual and Culture Executive Agency. For more information about Eurydice, see http://ec.europa.eu/eurydice.

