

# Comparative Overview on **Instruction Time** in Full-time Compulsory Education in **Europe** 2013/14

**Eurydice Report** 

aucation and Training

# **COMPARATIVE ANALYSIS**

Introduction	3
Instruction time for the compulsory curriculum varies a great deal between European countries	3
At primary level, the main focus is on reading, writing and literature	5
Many countries put a relatively strong focus on foreign languages at secondary level	9

# Introduction

Many stakeholders in education, such as students, parents and employers have a strong interest in the curriculum. They want to know what subjects are taught in school, whether the curriculum is putting enough emphasis on sciences and foreign languages, and, more generally, they want to know if students are gaining the knowledge and skills they need to either get a job or carry on studying at a higher level. Information on the amount of time dedicated to teaching a particular subject or 'instruction time' can be a useful indicator of the value placed on a subject and its relative importance in the curriculum.

The Eurydice network has been collecting data on instruction time in full-time compulsory education for more than two decades. This data provides comparative information on the time spent teaching the various subjects that comprise the national curriculum in different European countries. Since 2010, annually updated data has been available on the Eurydice website. This year (2013/14), for the first time, the Eurydice network has collected the data jointly with the OECD (the NESLI network).

The information is based on regulations, standards or recommendations adopted by central (top-level) or regional level education authorities. However, for the sake of brevity, the term 'recommended instruction time' will be used throughout this document. Data show intended minimum instruction time and not the time students actually receive at school. It excludes breaks, individual tutoring and private study. A web publication (<u>http://eacea.ec.europa.eu/education/eurydice/documents/facts\_and\_figures/</u><u>Instruction\_Time\_EN.pdf</u>) provides national data sheets with diagrams showing the recommended annual instruction time for each grade by subject category and country. Country specific notes clarify the national data provided. This publication also contains the definitions of subject and curriculum categories.

Three indicators are presented and discussed in this brief comparative analysis. Based on a notional school year, the first indicator shows the minimum instruction time, in hours, for the compulsory curriculum. The second indicator shows the instruction time dedicated to reading, writing and literature; mathematics; sciences; and foreign languages as compulsory subjects in primary education. The final indicator shows the instruction time dedicated to the same subjects in the compulsory phase of secondary education. All three indicators refer only to general education.

# Instruction time for the compulsory curriculum varies a great deal between European countries

The length of full-time compulsory education varies a great deal between European countries. It ranges from eight years in Croatia to twelve years in Hungary, the Netherlands (*Voorbereidend Wetenschappelijk Onderwijs*), Portugal, the United Kingdom (Northern Ireland) and Turkey (<sup>1</sup>).

<sup>(&</sup>lt;sup>1</sup>) For detailed information on the length of full-time compulsory education, please consult the following Eurydice publication: <u>http://eacea.ec.europa.eu/education/eurydice/documents/facts and figures/education structures EN.pdf</u>

Consequently, it is quite meaningless to compare total instruction time for the compulsory curriculum in different countries during this period of education.

Figure 1, therefore, shows the minimum instruction time for the whole compulsory curriculum divided by the number of years of compulsory education. This simple mathematical operation eliminates variations resulting from the differences in the number of grades in compulsory education. Yet, the situation still varies a great deal across Europe. Instruction time in a notional year reaches or exceeds 900 in Ireland, France, Italy, the Netherlands and the United Kingdom (Wales). It is close to 900 in a few other countries: Spain (897), Luxembourg (892) and the United Kingdom (ENG) (891). At the other end of the scale, instruction time for the compulsory curriculum in a given year corresponds to 555 in Croatia; is close to 650 in Bulgaria (644), and Latvia (658); and is around the 700 mark in Romania (690), Poland (693), Slovenia (699), Finland (703). The United Kingdom (Scotland) stands out, as the Scottish Curriculum for Excellence does not specify any subjects to be taught or any instruction time, except a minimum of 2 hours per week for 'physical education'.

In the Netherlands (<sup>2</sup>), Austria (<sup>3</sup>), and Liechtenstein (<sup>4</sup>) different types of secondary schools exist, but there is very little or, in the case of Austria, no difference between these school types in the recommended amount of instruction time. More substantial variations between school types (or curricula) do exist in Turkey (<sup>5</sup>) and Greece. In all the countries mentioned above (except Greece), the curriculum is the same for all students at primary level but changes either when they start lower secondary education (the Netherlands, Austria and Liechtenstein) or upper secondary education (Turkey).

In Greece, there are two types of public primary school with different curricula accounting for the differences in instruction time shown in Figure 1 ( $^{6}$ ): those implementing the unified revised curriculum (URC), accommodating 52 % of all primary pupils and those implementing the regular curriculum (RC), accommodating the rest of the primary school population. The unified revised curriculum started as a pilot programme in 2010. The objective is to gradually replace the regular programme with the unified revised curriculum in all schools. Pupils attending schools operating the RC may benefit from additional instruction time as part of the non-compulsory curriculum, which brings their total instruction time to the same number of hours as the URC. In a dozen countries, schools are strongly recommended to provide additional instruction time to that required for the compulsory curriculum, but students are free to decide whether to take it up ( $^{7}$ ).

(<sup>6</sup>) To get a full picture, please consult the web publication: <u>http://eacea.ec.europa.eu/education/eurydice/documents/facts\_and\_figures/Instruction\_Time\_EN.pdf</u>

<sup>(&</sup>lt;sup>2</sup>) Students must choose from three different types of schools at the end of primary education: VMBO (Voorbereidend Middelbaar Beroepsonderwijs), HAVO (Hoger Algemeen Voortgezet Onderwijs) and VWO (Voorbereidend Wetenschappelijk Onderwijs). After grade 10 of VMBO and grade 11 of HAVO, students normally continue vocational education, which is excluded from this data collection. For that reason, the number of grades of general compulsory education varies according to the tracks.

<sup>(&</sup>lt;sup>3</sup>) Students must choose between three types of schools at the end of primary education: Allgemeinbildende höhere Schulen, Hauptschulen and Neue Mittelschulen. After four years, students in the last two can chose between different tracks. In order to simplify the reporting, instruction time for the first eight years of compulsory education, which has nine, is shown for all types of schools.

<sup>(&</sup>lt;sup>4</sup>) Students must choose between three types of schools at the end of primary education: *Gymnasium, Realschulen* and *Oberschulen*.

<sup>(&</sup>lt;sup>5</sup>) Upper secondary students must choose from different tracks. The presented data concern High Schools and Anatolia High Schools, which accommodate 91 % of all students of that level.

<sup>(&#</sup>x27;) For more information, please consult the web publication, and especially the annex, at this address: http://eacea.ec.europa.eu/education/eurydice/documents/facts and figures/Instruction Time EN.pdf



# Figure 1: Recommended minimum instruction time in hours for the compulsory curriculum in a notional year during full-time compulsory education, 2013/14

Source: Eurydice

### Explanatory note

This figure only concerns general education. Grades at pre-primary level are excluded even if they are part of full-time compulsory education. For each country, the minimum instruction time in hours for the compulsory curriculum has been divided by the number of grades of full-time compulsory education.

### **Country specific notes**

Malta: Data are underestimated as they do not include instruction time for the month of June (summer timetable).

**United Kingdom (ENG)**: The Department for Education no longer provides guidance on minimum weekly lesson time and the notional figure in this study represents the recommendation prior to September 2011.

For detailed information on countries' specific data collection methodology and their collected data, please refer to section 3 of the web document available at:

http://eacea.ec.europa.eu/education/eurydice/documents/facts\_and\_figures/Instruction\_Time\_EN.pdf.

# At primary level, the main focus is on reading, writing and literature

Reading, writing and the study of literature, mathematics and sciences are all key subject areas of school curricula in Europe. Literacy, basic mathematics and sciences also provide the foundations for further learning. For these reasons, the Council of the European Union has set EU benchmarks for 2020 in reading, mathematics and sciences: by 2020, the proportion of 15-year-olds with low achievement in reading, mathematics and science should be less than 15 % (<sup>8</sup>). Foreign language skills too are essential for European students, given the diverse linguistic landscape of the European Union and the key role of language competences in the mobility and employability of European citizens (<sup>9</sup>).

Figure 2 focuses on these four subject categories and looks at the instruction time spent on each, as a proportion of the recommended minimum instruction time for the compulsory curriculum at primary level. In most countries, the instruction time allocated to these compulsory subject categories corresponds to a percentage varying from 50 % to 60 % of the recommended minimum instruction time. France and Croatia stand out, as the proportion of time attributed to these subject categories exceeds 70 %.

<sup>(&</sup>lt;sup>8</sup>) Please see the May 2009 Council Conclusions on a strategic framework for European co-operation in education and training: <u>http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2009:119:0002:0010:en:PDF</u>

<sup>(&</sup>lt;sup>9</sup>) Council Conclusions on multilingualism and the development of language competences <u>http://www.consilium.europa.eu/uedocs/cms\_data/docs/pressdata/en/educ/142692.pdf</u>





Source: Eurydice.

	BE fr	BE de	BE nl	BG	cz	DK	DE	EE	IE	EL RC	EL URC	ES	FR	HR	т	СҮ	LV	LT	LU
RWL	٠	17.9	22.6	29.6	29.7	27.3	20.2	22.5	20.0	27.6	23.8	24.2	36.7	27.8	٠	23.8	23.6	29.9	26.5
Maths	٠	•	19.6	15.9	16.9	15.3	15.6	15.2	16.7	13.8	12.4	16.4	20.8	22.2	•	14.3	17.2	18.6	19.0
Nat Sc	٠	٠	17.6	3.8	10.2	5.7	2.9	6.6	4.0	11.5	9.5	7.0	9.2	12.5	•	5.7	5.1	8.2	7.1
For Lang 1	2.4	14.3	3.6	8.8	7.6	5.7	5.9	7.9	(-)	6.9	9.5	10.3	6.3	11.1	8.9	4.8	7.7	6.2	(-)
	HU	мт	NL	AT	PL	РТ	RO	SI	ѕк	FI	SE	UK- ENG	UK- WLS	UK- NIR	UK- SCT	IS	LI	NO	TR
RWL	33.0	19.2	0	29.8	17.9	27.0	27.3	23.0	27.1	23.7	22.0	•	٠	٠	(-)	20.0	24.8	26.2	30.0
Maths	16.2	20.8	0	17.0	13.5	27.0	14.2	17.1	14.6	16.2	15.0	•	٠	٠	(-)	15.6	18.2	17.0	16.7
Nat Sc	6.2	5.7	0	12.8	10.2	7.0	4.7	8.1	3.1	10.5	11.8	•	•	•	(-)	8.4	10.9	6.3	5.0
For Lang 1	3.4	16.6	0	2.1	10.2	3.1	5.8	5.9	6.3	6.0	7.1	(-)	(-)	(-)	(-)	3.4	5.1	7.0	5.0

Compulsory subjects with flexible timetable

Vertical and horizontal flexibility

Nil or not applicable

(-)

### Explanatory note

Grades at pre-primary level are excluded even if they are part of full-time compulsory education. The percentage for each subject is obtained by dividing the time allocated to individual compulsory subjects for the entire period of primary education by the total number of hours for the compulsory curriculum at primary level (and multiplying by 100).

0

**Compulsory subjects with flexible timetable (horizontal flexibility)**: Central education authorities do not indicate the instruction time to be allocated to a specific subject, but only the total instruction time for a group of subjects. Regional authorities, local authorities, schools or teachers are then free to decide how much time to allocate to individual subjects.

**Vertical flexibility**: Central education authorities do not indicate the instruction time for a specific subject in a particular grade, but only the total instruction time for several grades or even for the whole of compulsory education. Schools/local authorities are then free to decide how much time to allocate to each grade.

#### Country specific notes

Belgium (BE de): Data for natural sciences include instruction time for technology in grades 1-8.

**Belgium (BE nl)**: Data for natural sciences include instruction time for social studies in grades 1-6. Legislation only stipulates the total amount of instruction time without specifying how many hours must be dedicated to an individual subject (horizontal flexibility). The intended instruction time is the mean of the values indicated in the timetables provided by the umbrella organisations of the public schools (municipal education, provincial education and Community education).

**Czech Republic**: Data for natural sciences include instruction time for social studies in grades 1-5. **Ireland** and **Malta**: Data for natural sciences include instruction time for technology in grades 1-6.

**France:** Data for natural sciences include instruction time for social studies in grades 1-2, for ICT in grades 1-5 and for technology in grades 3-5.

Ireland and United Kingdom: There is no foreign language as a compulsory subject.

Croatia and Lithuania: Data for natural sciences include instruction time for social studies in grades 1-4.

**Luxembourg**: Data for reading, writing and literature also include data for the first foreign language as a compulsory subject in grades 1-6.

Malta: Data are underestimated as they do not include instruction time for the month of June (summer timetable).

Austria: Data for natural sciences include instruction time for social studies in grades 1-4, and for technology in grades 1-4.

**Poland**: Data exclude the first three years of primary education for which a large proportion of the time allocated to compulsory subjects is flexible.

Sweden: Data for natural sciences include instruction time for technology in grades 1-9.

Liechtenstein: Data for natural sciences include instruction time for social studies in grades 1-4. In *Oberschule* and *Realschule*, data for natural sciences include instruction time for social studies in grades 5-9.

For other detailed information on countries specific data collection methodology and their collected data, please refer to section 3 of the web document available at this address: <u>http://eacea.ec.europa.eu/education/eurydice/# documents/facts and figures/Instruction Time EN.pdf</u>.

Countries where the percentage reaches slightly more than 60 % for the four subject categories are Belgium (Flemish Community), the Czech Republic, Lithuania, Malta, Austria and Portugal. At the other end of the scale, Germany, Cyprus, Ireland and Island allocates less than 50 % of the minimum instruction time for the teaching of these four subjects. Ireland is a special case, however, as the Irish language, which is an official language alongside English, is not included in these four subject categories. Nevertheless, a substantial percentage of time, comparable to that spent on reading, writing and literature is allocated to the teaching of Irish (<sup>10</sup>).

In all countries except Malta, the instruction time spent on reading, writing and literature takes the largest share of minimum instruction time. In most countries, this proportion corresponds to about 25 % of the total amount. In Malta, the largest proportion of instruction time is dedicated to mathematics. In all countries, except Malta and Portugal, mathematics takes the second largest share of total instruction time, at around 15 % in most countries. Portugal is the only country where the proportion of time spent on reading, writing and literature is the same as on mathematics. In Belgium (Flemish Community), Germany, Ireland, Poland and Island, the curriculum also gives equal or nearly equal importance to these two subject categories, as the proportion of instruction time spent on each is very close (the difference being less than 5 percentage points).

The instruction time dedicated to natural sciences and foreign languages is proportionally and substantially lower than that for reading, writing and literature, or mathematics in all countries. In most cases, students spend around 10 % or less on each of these two subjects. In Denmark, Greece (URC) Poland and Turkey, the percentage of time spent on the two subjects is the same. The number of countries where proportionally more time is spent on natural sciences is roughly the same as for foreign languages. In most countries though, the difference in percentage points is not very high (no more than 5). However, in the case of Belgium (Flemish Community), Malta and Austria the difference is greater. The proportion of instruction time dedicated to natural sciences is significantly higher than that dedicated to foreign languages (about 10 percentage points), In Malta, the inverse is true.

The relatively low percentage of instruction time attributed to the first foreign language in a few countries (below 5 %) can partly be explained by the fact that, in about half of the countries studied, learning a foreign language as a compulsory subject does not start from the first grade of primary education (<sup>11</sup>).

In some countries, some of the subject categories mentioned are broader, and the instruction time allocated is used to teach other subjects as well. This is the case in Luxembourg where instruction time on reading, writing and literature also includes that for the first foreign language (German). In seven countries, instruction time for science includes time for social studies in some grades only or in all grades at primary level (<sup>12</sup>). At this level of education, technology is also part of the science curriculum in six countries in some or all grades (<sup>13</sup>). In France for example, one subject area (*découverte du monde*) includes several specific subjects such as natural sciences, social studies, ICT during the first two grades of primary education. At that stage, teaching content rather than disciplines in science structures the curriculum.

<sup>(&</sup>lt;sup>10</sup>) For more information, please consult the web publication at this address:

http://eacea.ec.europa.eu/education/eurydice/documents/facts and figures/Instruction\_Time\_EN.pdf

<sup>(&</sup>lt;sup>11</sup>) For more information, please consult the web publication available at this address <u>http://eacea.ec.europa.eu/education/
<u>eurydice/documents/facts and figures/Instruction Time EN.pdf</u>. It shows the data by grades and by subjects.</u>

<sup>(&</sup>lt;sup>12</sup>) Belgium (Flemish Community), the Czech Republic, France, Croatia, Lithuania, Austria and Liechtenstein.

<sup>(&</sup>lt;sup>13</sup>) Belgium (German-speaking Community), France, Ireland, Malta, Austria and Sweden.

The percentage of instruction time allocated to different subjects cannot be provided for some countries. In Belgium (French and German-speaking Communities), Italy and the United Kingdom (England, Wales and Northern Ireland), central (top-level) regulations or standards do not specify the time to be allocated to specific subjects but only to groups of subjects or to the curriculum as a whole. Schools are therefore free to decide how much time to allocate to specific subjects in any given grade. In the Netherlands, central education authorities determine an overall amount of instruction time that schools can allocate between grades and curriculum subjects as they wish. Finally, in the United Kingdom (Scotland), as already mentioned, apart from physical education, central education authorities do not determine the subjects to be taught by schools.

# Many countries put a relatively strong focus on foreign languages at secondary level

Figure 3 focuses on the same four compulsory subject categories in the compulsory grades of secondary education. In many countries, compulsory education finishes at the end of lower secondary education. However, in some countries, one or more upper secondary grades are also part of compulsory education.

At secondary level, especially in the upper grades, some subjects cease to be compulsory for all students and become options students can choose from. This feature can explain the lower share of some subjects in some countries.

In the Netherlands and the United Kingdom, schools are free to decide how to allocate instruction time between all curriculum subjects. In Ireland, this freedom applies only to the last grade of compulsory education, which is the first grade of the upper secondary level; subjects such as natural sciences and foreign languages are only offered as compulsory options.

The pattern at secondary level is quite different from the one shown at primary level. There is a much more equal distribution of instruction time between the four subject categories in question, although slight differences in percentage points still exist in all countries.





Source: Eurydice.

	BE fr	BE de	BE nl	BG	cz	DK	DE	EE	IE	EL	ES	FR	HR	ІТ	СҮ	LV	LT	LU	HU	МТ	NL HAVO	NL VMBO
RWL	17.4	12.5	13.5	15.1	12.3	19.4	13.7	12.8	8.9	25.7	15.8	15.1	18.6	26.4	13.5	14.6	13.5	15.4	13.6	9.5	0	0
Maths	15.2	•	13.0	11.8	12.3	12.9	13.3	13.8	8.9	11.4	12.0	13.7	16.5	19.4	9.9	15.5	10.7	13.4	11.4	13.5	0	0
Nat Sc	9.8	•	6.8	13.9	17.2	17.2	12.2	21.3	(-)	10.5	8.3	11.2	16.0	5.6	11.7	9.9	10.8	9.1	12.7	10.8	0	0
For Lang	13.0	12.5	16.7	11.2	14.8	9.7	18.2	19.1	(-)	11.4	11.4	17.6	12.4	14.6	14.0	17.5	13.1	28.8	15.1	24.1	0	0
	NL VWO	AT AHS	AT HS	AT NMS	PL	РТ	RO	SI	SK	FI	SE	UK- ENG	UK- WLS	-	-	IS	LI GYM	LI OBS	LI reals	NO	TR AHS	TR HS
RWL	0	13.3	14.2	13.3	13.9	13.5	14.0	13.2	14.7	11.8	22.0	•	•	•	(-)	14.2	12.2	14.8	13.1	15.3	14.7	15.7
Maths	0	14.2	15.0	12.5	11.9	7.0	14.0	13.3	12.3	11.8	15.0	•	•	•	(-)	13.5	13.7	14.8	14.6	12.0	9.1	9.7
Nat Sc	0	12.5	11.7	12.5	12.0	9.5	17.4	17.4	10.2	15.8	11.8	•	•	•	(-)	8.1	7.2	17.0	16.8	9.6	8.0	8.6
For Lang	0	11.7	11.7	11.7	٠	13.1	14.0	11.1	14.1	15.8	7.1	٠		•	(-)	٠	20.1	11.1	16.8	17.2	14.0	8.6

Compulsory subjects with flexible timetable

Vertical and horizontal flexibility

Nil or not applicable

(-)

### Explanatory note

This figure only concerns general education. The percentage for each subject is obtained by dividing the time allocated to individual compulsory subjects during the compulsory period of secondary education by the total number of hours for the compulsory curriculum as a whole at secondary level (and multiplying by 100).

0

**Compulsory subjects with flexible timetable (horizontal flexibility)**: Central education authorities do not indicate the instruction time to be allocated to a specific subject, but only the total time for a group of subjects. Regional authorities, local authorities, schools or teachers are then free to allocate time to individual subjects.

**Vertical flexibility**: Central education authorities do not indicate the instruction time for a specific subject in a particular grade, but only the total instruction time for several grades, or even for the whole of compulsory education. Schools/local authorities are then free to decide how much time to assign to each grade.

#### Country specific notes

Belgium (BE de): In the last year of full-time compulsory education, schools enjoy horizontal flexibility for the second foreign language as a compulsory subject. Therefore, data for that year has not been reported.

**Belgium (BE nl)**: Legislation only stipulates the total amount of instruction time without specifying how many hours must be dedicated to an individual subject (horizontal flexibility). The intended instruction time is the mean of the values indicated in the timetables provided by the umbrella organisations of the public schools (municipal education, provincial education and Community education).

**Ireland**: In the last year of compulsory education (first year of upper secondary), schools enjoy horizontal flexibility for some subjects such as reading, writing and literature; and mathematics. Consequently, instruction for that year is not reported.

Italy: Data for reading, writing and literature also include data for social studies in grades 6-8; data for mathematics include instruction time for natural sciences in grades 6-8 (data for natural sciences only concern grades 9-10), and for ICT in grades 9-10.

Luxembourg: Data for reading, writing and literature also include also for the second foreign language as a compulsory subject in grades 7-10.

Malta: Data are underestimated as they do not include instruction time for the month of June (summer timetable). Sweden: See note under Figure 2.

**Liechtenstein**: See note under Figure 2.

For other detailed information on countries' data collection methodology and their collected data, please refer to section 3 of the web document available at:

http://eacea.ec.europa.eu/education/eurydice/documents/facts and figures/Instruction Time EN.pdf.

Furthermore, in slightly less than half of the countries studied, the largest proportion of instruction time is still spent on reading, writing and literature in compulsory secondary education. Greece stands out as a country where a great proportion of total instruction time is dedicated to reading, writing and literature (25.7%). In contrast, mathematics, sciences and foreign languages receive only between 10.5 and 11.4%. A similar but less pronounced pattern can also be observed in Italy and Sweden. In most other countries, this percentage on reading, writing and literature is around 15 %.

In a significant number of countries, the largest proportion of instruction time is used by students to learn foreign languages: Belgium (Flemish Community), Germany, France, Cyprus, Latvia, Luxembourg, Hungary, Malta, Liechtenstein (*Gymnasium*) and Norway. In some other countries, the share of the time devoted to foreign languages is very similar (less than one percentage point difference) to that allocated to reading, writing and literature; this is the case in Lithuania, Portugal, Slovakia, Turkey (Anatolia High Schools). The situation is similar with respect to natural sciences in Finland and Liechtenstein (*Realschulen*). In all these countries, instruction time as shown in the figure is used to learn two and, in a few cases, three foreign languages as compulsory subjects in some or all grades of secondary education (<sup>14</sup>). A special comment must be made with regard to Luxembourg and Malta where the instruction time dedicated to foreign languages is proportionally much higher in comparison with other subjects (especially reading, writing and literature). Students in these two countries start learning foreign languages from an early age in school and with some intensity as they need to have a very high level of proficiency because these languages subsequently become languages of instruction (<sup>15</sup>).

Mathematics takes up around 15 % of total instruction time in most countries. It is rarely the subject taking the largest share of total instruction time; this is only the case in Austria (*Allgemeinbildende höhere Schulen* – science branch (*Realgymnasium*) and *Hauptschulen*). In this country, however, the differences in percentage points between the four subjects are very small. In three countries (Cyprus, Hungary and Portugal), students spend the least amount of time on mathematics in comparison to the other three subjects, but again the difference with the closest contender is not great (about two percentage points).

In about half of the countries studied, the lowest proportion of total instruction time is allocated to sciences. The difference with other subjects is the greatest in Belgium (French and Flemish Communities), Italy, Iceland and Liechtenstein (*Gymnasium*), where it equals or is greater than five percentage points. In Italy, in some grades, instruction time for mathematics includes instruction for natural sciences, which explains the relatively low percentage for the latter subject. In contrast, natural sciences take up the largest share of total instruction time in five countries (Czech Republic, Estonia, Romania, Slovenia and Liechtenstein (*Oberschulen*)). This proportion, however, is only higher by a few percentage points (between two and four depending on the country).

As observed at primary level, the instruction time dedicated to the four subject categories in the compulsory grades of secondary education varies between 50 % and 60 % of total instruction time, depending on the country. This percentage is slightly higher in Liechtenstein (*Realschulen*) (61 %), Croatia (63 %) and higher still in Italy, Estonia and Luxembourg (66 % for Italy and 67 % for the remaining two). Spain (47 %), Cyprus (49 %), Portugal (43 %) and Turkey (45 % and 42 %) fall under the lower limit of the 50 %-60 % range.

<sup>(&</sup>lt;sup>14</sup>) For detailed information on instruction time dedicated to the first, second, third and fourth foreign languages as compulsory subjects for each grade of compulsory education, please see the web document at this address: <u>http://eacea.ec.europa.eu/education/eurydice/documents/facts and figures/Instruction Time EN.pdf</u>

<sup>(&</sup>lt;sup>15</sup>) German and French in the case of Luxembourg and English in the case of Malta.