

Chapter 1

School education in Luxembourg

The chapter presents the main features of schooling in Luxembourg, including the structure of the school system and how students advance through it, the key role of languages and responsibilities within the school system. It also examines evidence on the quality and equity of Luxembourgish schools and considers major policy developments impacting the school system.

This chapter provides an overview of the key features of schooling in Luxembourg for readers who are not familiar with the system, with an aim to better contextualise the approaches to assessment and evaluation.

Main features of the school system

A highly stratified school system with limited school choice for parents and students

Compulsory schooling from age 4 to 15

In Luxembourg, schooling is compulsory for a minimum of 12 years between the ages of 4 and 15. Children start their compulsory schooling in fundamental schools, of which there are 154 in Luxembourg. The typical age of attendance is from age 4 to 11. In 2009, 47 051 students attended fundamental school. For fundamental education, children are enrolled by the district (*commune*) in the nearest school, *i.e.* enrolment by residential area. However, parents can write to a neighbouring *commune* to request their child be enrolled at school there, if this is linked to a family member or legal guardian residing there or the parent(s) work place is near that school (ADQS, 2011).

Academic selection at ages 11 and 14 or 15

At the typical age of 12, students attend secondary school. There are 35 secondary schools divided into two major types of educational provision: general secondary education (ES); and technical secondary education (EST), including a stream for preparatory or “modular” vocational education. Although it is typical for a secondary school to offer only one of these major types of education, some schools do offer both general and technical education, most commonly for the first three years of lower secondary education. Children are oriented to one of these educational pathways at the end of fundamental school (typical age of 11, although the high incidence of grade repetition means that many children will be older). A School Orientation Council (*conseil d’orientation*) is responsible for this decision, although parents do have the right to appeal (see Chapter 3).

- General secondary (ES): comprises three years of lower secondary (Grades 7ES, 6ES and 5ES) and four years of upper secondary (Grades 4ES, 3ES, 2ES and 1ES). At the end of their fourth year of lower secondary general education, students specialise in one of seven types of upper secondary general education (modern languages; mathematics and IT; natural sciences and mathematics; economics and mathematics; arts; music; humanities and sciences). ES leads to a secondary school diploma which allows students entry to university.
- Technical secondary (EST): comprises lower, middle and upper cycles and can last between six and eight years depending on students’ performance and choices. The lower cycle comprises three years (Grades 7EST, 8EST and 9EST). After three years, students are oriented to one of three pathways:
 - vocational (two more years, leading to certificate of technical and professional aptitude)
 - technician (four more years, leading to a Technician’s diploma)
 - technical (four or five more years, leading to Technical diploma which allows students’ entry to university)

- Within technical education, the preparatory or “modular” vocational education: comprises nine modules per subject. As students progress through the modules, they become eligible to integrate into mainstream technical secondary education (EST). This modular provision aims to cater to students who are struggling to follow mainstream technical secondary education.

Majority public provision, but with substantial private provision in general secondary education

The vast majority of students attend public schools and a small proportion of students attend schools that are privately managed but primarily funded by the Luxembourgish government (see Table 1.1). All such students follow the national student learning objectives, participate in national assessments and are awarded nationally recognised qualifications. However, students in independent private schools do not follow national curriculum or qualification systems, although they benefit from 40% of the public funding costs.

Table 1.1 Number and proportion of students enrolled by type of school (2010/11)

	Public schools	Government-dependent private	Independent private	Total
Fundamental schools	46 125	127	4 372	50 624
Percentage	91%	0%	9%	
General secondary (ES)	12 414	411	4 361	17 186
Percentage	72%	2%	25%	
Technical secondary (EST)	22 504	3 375	112	25 991
Percentage	87%	13%	0%	

Source: MENFP (2012).

The core role of languages in Luxembourg’s school system

Student performance and the use of evaluation and assessment in Luxembourg must be considered within the context of two unique and interrelated national characteristics:

- Luxembourg’s focus on its multilingual tradition. *Lëtzebuergesch*, French and German are official as well as teaching languages. The three languages are considered essential for social unity and the teaching and learning of these languages is assigned a central role (ADQS, 2011; Carey & Ernst, 2006). This is a fundamental feature of Luxembourgish culture.
- Luxembourg has a large immigrant population. The country’s proportion of immigrants – over 47% of students and 65% of the active population – influences how the system works.

These two characteristics, along with the system’s overall centralised and stratified structure, interact in a circular relationship that shapes students’ performance, attainment rates and overall success.

Regarding stratification, languages carry a heavy weight in determining future opportunities for students. Contrary to the overall philosophy of the government that multiple languages at a young age increase social unity, in a highly stratified system, the

outcome seems to be wider inequality in terms of immigrant status and gender across the various tracks. Around 50% of the curriculum is devoted to the teaching of languages. Fundamental education is taught in *Lëtzebuergesch* in Cycle 1 and in German in Cycles 2 to 4. National statistics show that immigrant children are more commonly oriented towards secondary technical education. In 2009/10, secondary general education comprised 81.4% native Luxembourgish whereas this percentage for secondary technical education was 57.5% (MENFP, 2011a, 2011b). Regarding gender, the percentages of female students in secondary general education was 54.2% and in technical education was 47.4% respectively (MENFP, 2011a, 2011b). These characteristics are often referred to in discussions about the need for educational reform. Further, these characteristics are highlighted by PISA results that show a wide distribution in student performance between schools and a large impact of socio-economic factors on student performance, which is consistent with stratified systems (OECD, 2004; MENFP, 2010a; also see below).

Traditionally a high incidence of grade repetition

In Luxembourg, grade repetition is a common practice that contributes to a high age-grade discrepancy in the educational system – and dropouts. In 2010/11, 17.9% of students in fundamental education (against 19.6% in 2008/09), 18.6% in secondary general and 63.5% in secondary technical education were older than the theoretical age for their grade (MENFP, 2012b, 2010b). Intended to lower this percentage, the competency-based approach introduced four pedagogical cycles and changed the way promotion is established – rather than strictly by year, students are now allowed extra time, if necessary, to complete each pedagogical cycle. Thus, under this approach, the focus is on levels of proficiency rather than time. Difficulties in teaching language can also play a role in grade repetition – Germanic languages are used for teaching in fundamental education and the French language is gradually introduced in secondary education – and in particular this may pose an extra obstacle to those students with an immigrant background who speak none of the teaching languages at home (see below).

Responsibilities

Education in Luxembourg is highly centralised with the Ministry of National Education and Vocational Training (MENFP) responsible for the planning and administration of all teaching in public schools (ADQS, 2011). See also Chapter 2 for further details.

Fundamental education

Each of the 21 local education authorities (*arrondissements*) in Luxembourg has an Inspector (*inspecteur*) who is the hierarchical head of all teachers in schools within that *arrondissement*. Thus, there is no hierarchical authority permanently present at any fundamental school. In 2007/08 there was a ratio of one *inspecteur* to 22 physical school buildings (Eurydice, 2010), however, the legal entity of “school” as stipulated in 2009 regroups many of these individual buildings and each *inspecteur* typically manages 5 to 11 schools. However, there are some organisational bodies in place within each fundamental school. Primarily, there is the School Committee (*comité d'école*) which has an elected president who is responsible for the smooth functioning of the school, including relations with the *inspecteur* and parents. For each of the four pedagogical cycles within fundamental education, there is a Cycle Co-ordinator (*coordinateur de cycle*) who co-ordinates the pedagogical team for that cycle (*l'équipe pédagogique du cycle*). Each pedagogical team comprises the class teacher (*titulaire de classe*) for each

class within that cycle, *e.g.* the pedagogical team for Cycle 2 comprises the class teachers for children aged 6 and 7.

There are other bodies external to fundamental school with important roles. These may be linked to the *arrondissement* or the *commune*. Each *arrondissement* has at least one School Inclusion Commission (*Commission d'inclusion scolaire*, CIS) comprising the *inspecteur*, one teacher, three members of the *arrondissement's* special multi-professional team of psychologists, physiotherapists, speech therapists, etc (*équipe multiprofessionnelle*) and in some cases a Doctor or social assistant. The *équipe multiprofessionnelle* can provide special support to each school's pedagogical team, mainly in the case of children with special educational needs. Further, each *inspecteur* can draw on a special support teacher (*instituteur-ressources*) who provides specialised pedagogical expertise to schools (in 2009/10, there were ten special support teachers in Luxembourg, there are now twenty). Each *commune* has a District School Commission (*Commission scolaire communale*) comprising the mayor, representatives of the district council, as well as representatives for teachers and parents within the district. Parents can also seek representation of a professional from the School Psychology and Orientation Service (*Centre de psychologie et d'orientation scolaires*, CPOS) during the decision at the end of Cycle 4 on student orientation to general or technical secondary education.

Secondary education

Public secondary schools are directly managed by the MENFP, via the direct appointment of a school leader (*directeur*) and the setting of a detailed legal framework, including general objectives, curriculum, student assessment, school time-tables, etc. and more recently a requirement to establish a School Development Unit. Within this centrally specified legal and financial framework, the *directeur* is responsible for administrative, technical and financial matters, as well as the implementation of national curriculum and pedagogical projects, and is assisted by a deputy and a management team. The *directeur* is responsible for evaluating the school and reports directly to the MENFP.

Quality and equity of schooling outcomes

In international comparison, Luxembourg has a highly skilled population. The proportion of adults with at least upper secondary education has been above average since the 1970s and between 1997 and 2009 the proportion of the population that had not attained upper secondary education decreased by 5% or more per year (OECD, 2011). In Luxembourg, the proportion of 25-to-34-year-olds having attained upper secondary education or higher is 84% (compared to an OECD average of 81%), which is ten percentage points higher than the proportion of 45-to-54-year-olds with an upper secondary education or higher¹. Over the same period, the number of 25-to-64 year-olds holding a tertiary-level qualification has grown by over 5% on average per year. Indeed, 44% of 25-to-34-year-olds hold a tertiary qualification compared to an OECD average of 37%. This sees Luxembourg with a healthy stock of highly qualified individuals.

However, current graduation rates at the upper secondary level are substantially lower than in the OECD on average (69% in Luxembourg; 82% in OECD). Further, the performance of 15-year-old students in the OECD Programme for International Student Assessment (PISA) surveys since 2000 has consistently disappointed. Luxembourgish students performed below average in the PISA 2009 reading assessment (472 score points compared to an OECD average of 493 score points) and there has been no improvement

in average performance in reading or mathematics since the 2003 survey (OECD, 2010a). In fact, the proportion of students unable to perform the most basic tasks in the PISA mathematics assessment grew between 2003 and 2009².

Indeed, Luxembourg is less equitable than other school systems in terms of the proportion of low-skilled students: 26.0% of students in Luxembourg demonstrated a lower level of reading proficiency than that considered to be the baseline at which students start to demonstrate the reading literacy competencies that will enable them to participate effectively and productively in life (18.8% on average in the OECD). The PISA 2009 results confirmed that there are some worrying inequities within Luxembourg's school system:

- Socio-economic factors strongly influence student performance: Differences in student socio-economic background explained a higher proportion of the variance in student reading performance than on average in the OECD and the most advantaged quarter of Luxembourgish students outscored the least advantaged quarter by 115 score points, indicating a significant educational gap.³
- Performance differences among schools are strongly related to socio-economic differences: As would be expected with the different types of secondary schooling offered to Luxembourgish students, a higher proportion of reading performance is observed between schools than on average in the OECD. However, socio-economic differences among students and schools account for more than twice as much of the observed between-school performance differences in Luxembourg, compared to on average in the OECD.⁴
- Major performance disadvantage on average for students with an immigrant background and this is particularly pronounced for certain groups: In terms of average reading performance, while native students perform around the OECD average (495 score points, compared to an OECD average of 499 score points for native students), students with an immigrant background perform way below the OECD average and in particular second-generation immigrant students perform comparatively worse in Luxembourg than in other OECD countries. They score an average of only 439 score points despite the fact they have followed all their schooling in Luxembourg (compared to an OECD average of 468 score points for second-generation students). These significant educational gaps are explained to some degree although not fully by differences in student socio-economic background. Among those students with an immigrant background taking the PISA 2009 reading assessment, those whose families originated from Portugal, the former Yugoslavia and Italy demonstrated the most significant performance disadvantage.⁵

Main policy developments

New organisational and pedagogical structure in fundamental education

In February 2009, a new law was introduced to reorganise the first nine years of schooling and this came into force in the 2009/10 academic year. “Fundamental education” regroups pre-primary education and primary education and is organised in four pedagogical cycles:

- Cycle 1: a first, optional year for children aged 3, plus two years of compulsory early childhood education for children aged 4 and 5. Children aged 4 on 1 September must enrol in the second year of Cycle 1.
- Cycle 2: two years for children aged 6 and 7.
- Cycle 3: two years for children aged 8 and 9.
- Cycle 4: two years for children aged 10 and 11.

For each cycle, there is a defined set of learning objectives (*socles de compétences*) that students are expected to master by the end of the cycle in order to progress to the next pedagogical cycle (teachers also consider students' attitudes, motivation and potential to succeed). This allows a stock-taking of students' learning progress every two years. If a student has not achieved all learning objectives by the end of the cycle, he/she will follow an individual programme incorporating a third year into the cycle that the pedagogical team draws up. Learning objectives are defined for six areas: literacy, German, French and Luxembourgish, plus language awareness; mathematics; discovery of sciences; physical expression, movement, sports and health; discovery of aesthetics, creativity, culture, arts and music; and life in a community, social and moral values or religious and moral education.

This reform, therefore, seeks to shift the focus to student outcomes, by defining the minimum learning content for students at each level and requiring teachers to assess students against these.

Introduction of a monitoring system

In 2008, the MENFP commissioned the development of standardised national assessments to monitor student outcomes at two major points of their compulsory schooling: once in fundamental school (start of Cycle 3) and once in lower secondary education (Grade 5ES and 9EST). The standardised national assessments are aligned to the national learning objectives for French, German and mathematics. These complement results collected by the MENFP from the national non-standardised tests (*épreuves communes*) at the end of lower secondary education, as well as results from international assessments which are also used to monitor schooling outcomes.

Piloting innovative approaches to teaching and learning organisation

Since 2003, the MENFP has launched several initiatives to allow participating schools a degree of autonomy to pilot innovative approaches to teaching and learning.

There was a targeted pilot project to inform the possible reform of technical secondary education. This was known as the Project for Lower Technical Secondary Education (PROCI) initiative and encompassed six technical secondary schools (around 1 700 students in total) in 2003 piloting new ways of teaching, learning and assessment. The major aims of the PROCI initiative were to find ways to reduce grade repetition and to improve learning support to students in technical education, with the aim to increase success rate at the second academic selection stage at age 14 (Grade 9EST). These initiatives have been closely monitored and evaluated by the MENFP.⁶

In addition, three new schools have been established in 2005, 2007 and 2008 with mandates and freedom to offer different school provisions using innovative teaching and learning strategies. For example, this may include extended school days. These initiatives are also closely monitored and evaluated by the MENFP.

Proposal to extend the competency-based learning approach reform to secondary education

In December 2011, a first draft of a proposal to reform the secondary school in Luxembourg was published and is the basis for an ongoing nationwide consultation with all stakeholders⁷. Discussions of the proposal will continue until early 2013. This draft is the result of discussions and reflections between the MENFP and secondary school teachers on preparatory documentation that started in March 2010 (in turn, this was based on the introduction of the competency-based approach in 2007). The major proposed measures in the reform would include:

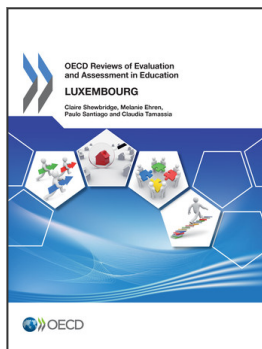
- a new two-year cycle for the first two years of secondary education (*i.e.* a continuation of the idea of blocks of two-year cycles in fundamental schools) with competency-based learning objectives and close guidance via a tutor of individual students to ensure carefully considered subject specialisation at the end of the third year;
- subject specialisation in upper secondary schools will allow greater flexibility for students and be organised in two general subject bands in both general and technical secondary schools;
- plus a greater degree of pedagogical autonomy for secondary schools in fixing a particular school profile and three year development plan.

Notes

1. The OECD average is 71% and the proportion of 45-to-54-year-olds having attained at least upper secondary education in Luxembourg is 74% (see Annex E).
2. 21.7% of student in Luxembourg performed at Level 2 or below in the PISA 2003 mathematics assessment, but this increased by 2.2% in PISA 2009 (OECD, 2010a).
3. 18.0% of variance in student reading performance is explained by the PISA index of socio-economic and cultural status (ESCS) (OECD average = 14.0%). Luxembourgish students in the top quarter of the index of ESCS had a mean reading performance of 526 score points (OECD average = 540 score points) and those in the bottom quarter, 411 score points (OECD average = 451 score points) (OECD, 2010b).
4. Overall, reading performance variance in Luxembourg is greater than on average in the OECD (124.2, versus 100.6 in the OECD). Further, 61.6% of reading performance variance lies between schools in Luxembourg, in contrast to 41.7% in the OECD. The PISA index of socio-economic and cultural status (ESCS) explains 50.5% of the between-school reading performance variance in Luxembourg, more than twice as much as in the OECD on average (23.8%). While there are significant differences among the average index of ESCS value for schools attended by native students (0.11) and for schools attended by students with an immigrant background (-0.15), this is less than on average in the OECD (0.04 and -0.26, respectively). All data are taken from OECD, 2010b.
5. The average reading performance disadvantage for students with an immigrant background is -52 score points, but this is reduced to -19 score points after accounting for the PISA index of socio-economic and cultural status (ESCS). This compares to a disadvantage of -43 score points on average in the OECD, reduced to -27 score points with the equivalent adjustment. Differences in student socio-economic and cultural status are more pronounced in Luxembourg between native and immigrant students than in other OECD countries (0.91 index points in Luxembourg, compared to 0.44 on average in the OECD). Reading averages are as follows for students whose families originate from: the former Yugoslavia (412 score points); Portugal (413 score points); Italy (443 score points). All data are taken from OECD, 2010b.
6. For example, see:
www.men.public.lu/actualites/2007/03/070321_proci/index.html?highlight=proci and
www.men.public.lu/actualites/2010/12/101207_cp_pisa2009/index.html.
7. See: www.men.public.lu/priorites/111205_reforme_seconde/index.html.

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