



# LITERACY IN ESTONIA

COUNTRY REPORT

CHILDREN AND ADOLESCENTS

March 2016

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# 1 Introduction

This report on the state of literacy in Estonia is one of a series produced in 2015 and 2016 by ELINET, the European Literacy Policy Network. ELINET was founded in February 2014 and has 78 partner organisations in 28 European countries<sup>1</sup>. ELINET aims to improve literacy policies in its member countries in order to reduce the number of children, young people and adults with low literacy skills. One major tool to achieve this aim is to produce a set of reliable, up-to-date and comprehensive reports on the state of literacy in each country where ELINET has one or more partners, and to provide guidance towards improving literacy policies in those countries. The reports are based (wherever possible) on available, internationally comparable performance data, as well as reliable national data provided (and translated) by our partners.

ELINET continues the work of the European Union High Level Group of Experts on Literacy (HLG) which was established by the European Commission in January 2011 and reported in September 2012<sup>2</sup>. All country reports produced by ELINET use a common theoretical framework which is described here: "ELINET Country Reports – Frame of Reference"<sup>3</sup>.

The Country Reports about Children and Adolescents are organised around the three recommendations of the HLG's literacy report:

- Creating a literate environment
- Improving the quality of teaching
- Increasing participation, inclusion (and equity<sup>4</sup>).

Within its two-year funding period ELINET has completed Literacy Country Reports for all 30 ELINET member countries. In most cases we published separate **Long Reports** for specific age groups (Children / Adolescents and Adults), in some cases comprehensive reports covering all age groups. Additionally, for all 30 countries, we published **Short Reports** covering all age groups, containing the summary of performance data and policy messages of the Long Reports. These reports are accompanied by a collection of good practice examples which cover all age groups and policy areas as well. These examples refer to the **European Framework of Good Practice in Raising Literacy Levels;** both are to be found in the section "Good Practice"<sup>5</sup>.

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<sup>1</sup> For more information about the network and its activities see: [www.eli-net.eu](http://www.eli-net.eu).

<sup>2</sup> In the following, the final report of the EU High Level Group of Experts on Literacy is referenced as "HLG report". This report can be downloaded under the following link: [http://ec.europa.eu/education/policy/school/doc/literacy-report\\_en.pdf](http://ec.europa.eu/education/policy/school/doc/literacy-report_en.pdf).

<sup>3</sup> See: <http://www.eli-net.eu/research/country-reports/>.

<sup>4</sup> "Equity" was added by ELINET.

<sup>5</sup> See: <http://www.eli-net.eu/good-practice/>.

## 2 Executive Summary

### LITERACY PERFORMANCE DATA

Estonia participated in OECD's PISA (15 year-olds' reading literacy) in 2009 and 2012, and in OECD's PIAAC (adults' reading literacy) in 2012. This means it is possible to describe the changes over time in average reading proficiency, according to different characteristics of the readers, and to compare relative reading levels of proficiencies for 15 year-olds and adults.

In PISA 2012, Estonia performed well above the EU's average (516 vs 489 EU-average). A substantial increase was observed (+ 15 score points). The girls' performance increased by 4 score points while the boys' decreased by the same value.

A limited proportion of 15 year-olds (9%) can be considered as low-performing readers. This is less than average across the EU countries (20%). These students can read simple texts, retrieve explicit information, or make straightforward inferences, but they are not able to deal with longer or more complex texts, and are unable to interpret beyond what is explicitly stated in the text. The proportion of low-performing readers has slightly increased in Estonia (by 4.2% among girls and by 4.7% among boys). The proportion of top-performing readers was slightly higher than in EU countries on average (8.3% vs 7%).

In PISA 2009, the gap according to the pupils' socioeconomic background was much lower than the EU average in PISA (58 vs 89 on average). Moreover, the gap between native students and students with a migrant background was slightly lower than in EU countries on average (35 vs 38 in EU). The mean score difference between those who always spoke the language of the test at home, and those who spoke another language was lower (40 vs 54), but the proportion of students speaking another language is very low (2.3%) in comparison with the European countries on average (13.3%).

In Estonia, the gender gap (in favour of girls) was similar in PISA 2012 to the EU on average (44). The gender difference also remained unchanged since 2009, resulting from the equivalent increase among girls and decrease among boys.

In conclusion, Estonian 15-year old students increased their reading performance between 2009 and 2012 and scored above the EU countries on average; the proportion of low-performing readers is much lower and the proportion of top-performing readers is higher than in the EU countries on average. In Estonia, the spread of achievement was higher than on EU average.

The gap according to socioeconomic status, migration background and language spoken at home was lower than in EU on average. Then, Estonia tends to be more effective, but also more equitable than EU countries on average.

# KEY LITERACY POLICY AREAS FOR DEVELOPMENT (AGE-SPECIFIC AND ACROSS AGE-GROUPS)

## Creating a Literate Environment

The EU High Level Group of Experts on Literacy stated the following in relation to **creating a more literate environment**:

“Creating a more literate environment will help stimulate a culture of reading, i.e. where **reading for pleasure** is seen as the norm for all children and adults. Such a culture will fuel reading motivation and reading achievement: people, who like to read, read more. Because they read more, they read better, and because they read better they read more: a virtuous circle which benefits individuals, families and society as a whole” (HLG report 2012, p. 41).

Parents play a central role in children’s emergent literacy development. They are the first teachers, and shape children’s language and communication abilities and attitudes to reading by being good reading role models, providing reading materials, and reading to the child.

Schools play an important role in offering a literate environment for students. Schools may foster reading motivation and reading for pleasure in many ways. However, schools do not have sole responsibility. A broad range of actors may shape literacy motivation, from parents and peers to libraries. Particularly this is true in adolescence as it is a crucial phase in life where young people develop long-term *identities and self-concepts* related to reading and media use (Cf. ELINET Country Reports, Frame of Reference, pp. 29ff, 45f.)

### Pre-Primary Years

**Creating a literate environment at home:** The home learning environment, particularly in the first three years, is extremely important (Brooks et al. 2012). It determines the quantity and quality of interactions between the infant and the primary caregivers, who are the most powerful agents of language development, both receptive and expressive, in the context of everyday activities and experiences. During these years, experience-dependent creation of synapses is maximal. We know that the more words the children are exposed to, the more they can learn. Caregiver-child relations in their turn strongly influence the ability to learn, by influencing self-esteem, general knowledge and motivation.

Estonia did not participate in PIRLS study and thus there is no comparable data for this topic. The national data on visiting theatres, cinemas, museums, concerts, and reading (printing, lending, buying) books can be concluded from the official statistics (e.g., in English, see *Culture* in Statistics Estonia, 2015.)

Reading to the child is a predictor of future literacy achievement. In Estonia, two thirds of parents of young children read bedtime story to their child every day or at least a couple of times a week; the speech development of these children is significantly better than those children whose parents do not read bedtime stories (Tammemäe, 2009, pp. 81-82). Although immigration has been relatively low for years, newcomers would need assistance. Therefore, there is a need for to collect regular data of newcomers’ family environments.

The Estonian Reading Association has a project "Reading Games". The project's aim is to provide interesting educational tools for children, parents and teachers in the form of board games and facilitate the development and shaping of children's reading skills. The association offers also courses for parents to raise awareness of how to create a literate environment at home (Estonian Reading Association, 2015).

## Children and Adolescents

**Creating a literate environment in school:** Since 2004, the project Reading Nest helps create a motivating reading environment in nursery schools and comprehensive schools. Over 1,500 teachers have since been trained. The project's objective is to design an environment in schools where children can read in an enjoyable and safe atmosphere; to engage students in activities, to promote creativity of both children and teachers, and to foster collaboration between home and community (see *Lugemispesa* (n.d.) project by the Estonian Reading Association).

**Offering digital literacy learning opportunities in schools (and other public spaces, e.g. libraries):** Digital and media education seem to be a focal point in the Estonian national curricula (Estonia. Government of the Republic, 2011a), and the Estonian Lifelong Learning strategy (Ministry of Education and Research, 2014) further promotes this.

Estonian schools are well provided with digital technology and most teachers report using it in more than 25% of their lessons. Nevertheless, although 93% of lower secondary teachers in Estonia report having undertaken professional development in the 12 months prior to the TALIS 2013 survey, the highest proportions of teachers report refer to a high need for professional development in information and communications technology (ICT) skills for teaching and strategies for using new technologies in the workplace (TALIS, 2013). Tertiary and in-job teacher training are based on scientific research (Laanpere, 2013).

Estonian students are, so to say, e-students. According to the PISA 2012 questionnaire, using technical equipment and computers starts early, the Internet use and participation in social networks is high. Estonian students are the best in using e-school and school-web, and the second best in reading news mediated via the Internet (HTM, Innove, 2013, p. 5).

However, using smart-technology equipment at a very high level brings up a serious risk of computer dependency. In 2012, over 99% of the Estonians between the ages of 16-24 used the Internet outside home and office via mobile phones, half of them doing it almost permanently and only 19% rarer than once a week. All of the group had access to the Internet also via laptops or tablets (Statistics Estonia, 2015, IT62). At the same time, a massive national survey showed that 8<sup>th</sup> graders (15 years old) had started using computers at the age of 6 years while children younger than that had started it already at the age of 4.5 years. 40 percent of parents reported that their children are overusing computers, sleep less and are physically less active than normal (The National Institute for Health Development, 2014).

**Strengthening the role of public libraries :** There is a very good net of libraries in Estonia. In 2012 there were 563 public, 51 scientific and 391 school libraries in Estonia (Statistical Yearbook of Estonia, 2012). As we have 533 compulsory schools, it means that more than two-thirds of schools have a library ([https://www.hm.ee/sites/default/files/2015-2016-oppeaasta\\_arvudes.pdf](https://www.hm.ee/sites/default/files/2015-2016-oppeaasta_arvudes.pdf)). School libraries are not only a place for lending or reading books, but are mostly like learning centres that help to fulfil learning goals. The same can be said about public libraries. Librarians are eager to help teachers to



offer different ideas for better literacy teaching. The libraries are well provided for. In 2013, the mean number of books per school library was 7,773 and the mean number of loans per year was 1,924 (i.e., 48 books per a student per year), the budget of library development being 5,021 euros per a year (Statistics Estonia, 2015, KU031). In most of the schools, every class- and subject-teacher has his/her special teaching room with its relevant library.

As a challenge, cuts of state budget affect libraries. On the other hand, a new policy of the government is to support e-reading which has led to publishing e-books of the classic Estonian literature free and of the world literature for very low prices (Digiraamat, 2015). Within the programme of Development of Libraries (Estonia. Ministry of Culture, 2015), public and school libraries are to be equipped with high quality original and translated literature, incl. all needed for lifelong learning, youth and children (Recommendations, 2015).

**Improving literate environments for children and adolescents: Programmes, initiatives and examples:** The Estonian Reading Society projects support schools, teachers, children, and families, e.g., among others, results of the Family History project research with a lot of memories stored, improved children's reading and writing skills and gathered first experiences of research compilation (Estonian Reading Association, 2015).

Officially, propagating literature to families with children lies on the Estonian Children's Literature Centre working both physically and via its website (see below). Beside permanent activities and publishing a journal, the centre has organised popular weekly family occasions and a yearly competition of reading aloud (for 4<sup>th</sup> graders) for 23 years. It also gives yearly prizes, such as Raisin of the Year (campaign for introducing and awarding the best original literary pieces) and The Tower of Babel Honour Diploma (campaign for the best translation).

Although there is no central coordinating body for the promotion of reading literacy in Estonia, these functions may be carried out by several organisations, reading associations or library networks. For example, a programme called "Reading is fun" aims to motivate children to read in their leisure time. Children can freely choose the books they want to read, and then discuss and exchange ideas about them online (L.O.M. Edu, 2005).

The Estonian Children's Literature Centre provides an archive library, an information centre on children's literature, a development and training centre, an art gallery and a children's library. Several books are awarded; there is a roundtable about children's literature as well as creative contests, exhibitions, and a reading-aloud-day (Reading Worldwide, 2012a).

The Estonian Reading Association (EstRA) could also be considered an essential interface for promoting and fostering literacy. It spreads information about language competences among children, adolescents and adults in Estonia to teachers and scientists, with the goal of developing literacy skills and benefiting research on the topic (Reading Worldwide, 2012b).

A programme called "Reading Nest" trains teachers in storytelling and in the ability to create a reading environment to promote pupils' interest in reading (Estonian Reading Association, 2014).

# Improving the Quality of Teaching

The quality of teaching consists of several aspects:

- the quality of preschool
- coherent literacy curricula
- high-quality reading instruction,
- early identification of and support for struggling literacy learners
- highly qualified teachers (cf. Frame of Reference for ELINET Country Reports).

Particularly crucial is the quality of teaching and of teachers, as the McKinsey report *How the world best performing school systems come out on top* (McKinsey et al. 2007) states: "The quality of an education system cannot exceed the quality of its teachers".

## Pre-Primary Years

**The quality of preschool education:** Estonian pre-school education is an old and well-working system. The first kindergarten was founded in Tallinn in 1840. Special kindergarten teachers' education has been provided since 1920. The minimum required level to become a qualified teacher is Bachelor level (ISCED 5). Length of study is 3 years (European Commission/EACEA/Eurydice/Eurostat, 2014, p. 101). Continuing Professional Development is obligatory (European Commission/EACEA/Eurydice/Eurostat, 2014, pp. 104–105). In Estonia, a person working with children in a pre-primary facility has to have either an academic or a vocational degree in education. He/she has to perform a minimum of 160 hours in-job training every five years (Estonia. Government of the Republic, 2002, § 4).

Currently, local authorities must guarantee a place in a child-facility for each child and financial support for every kindergarten. High demands for kindergarten teachers, teaching methods and environment are strengths of the Estonian pre-school education.

**Preschool language and literacy curriculum:** In Estonia, integrated language and speech development constitutes one of seven subject fields (hereinafter "subject field") described in the national curriculum for preschool facilities. According to the guidelines of this subject field, 6-7-year-old children should be actively involved in planning activities which promote their interest in reading, writing and literature, help them develop their communication skills and their basic reading and writing skills as well. Besides, several linguistic skills are mentioned as a result of other subject fields, such as cognitive and learning skills development, social skills, etc. Estonian as a second language constitutes special subject fields preparing children to get used to the sound of Estonian, to know some Estonian cultural habits, facts, or proper names, and to understand a few words and every-day phrases (Estonia. Government of the Republic, 2008, Chapt. 5, §§ 18 and 19).

According to the same curriculum, preschool institutions provide children with a speech environment rich in language stimuli. Children are immersed in a literacy-rich environment which enhances their exposure to a variety of literature genres and helps them to understand and appreciate literature. Also, children's exposure to books promotes their interest in reading and contributes to the development of reading and writing readiness (Estonia. Government of the Republic, 2008, p. 18). According to the European Agency for Special Needs and Inclusive Education (2009), in Estonia children with special needs get support mainly in mainstream Kindergartens and only in some cases do they attend a special Kindergarten.

## Children and Adolescents

**Literacy Curricula and Reading instruction in schools:** National curricula for basic and upper secondary schools in Estonia were launched in 2011. The curricula are based on the Basic Schools and Upper Secondary Schools Act.

According to the national curriculum for basic schools, Estonia has no special curriculum on reading. There is one integrated syllabus for Estonian Language and Literature up to grade 4 (incl.). Also teaching foreign language starts in grade 1 or 2 (as chosen by a school). Language learning objectives are oriented towards communication, the main components being linguistic, sociocultural and pragmatic competence. Subskills, incl. mediation skills, vocabulary, and grammar are developed by working with academic, every-day and fiction texts (Estonia. Government of the Republic, 2011a).

By the end of the primary stage of the basic school (i.e. at the end of grade 3), a pupil "is capable of finding and understanding information in texts (including data, terms, characters, activities, events and their time and place) and presenting it orally and in written form"; he/she "understands and uses learned everyday expressions and simple phrases in a foreign language being studied" (Estonia. Government of the Republic, 2011a, § 7).

Estonian national curricula emphasise literacy teaching at all stages of basic school according to students' age and developmental level. Subskills must be taught in an integrated way, based on topic-field and type or situation of communication. Reading engagement or reading for pleasure is more stressed in the new curriculum. The mother tongue syllabus includes also a wide range of pedagogical and methodological advice for teachers, but still leaves enough space and freedom for teachers to make their own decisions. The current mother tongue syllabus gives more freedom to teachers to choose literature or fiction books (Estonia. Government of the Republic, 2011a, 2011b).

Although literacy is not mentioned as an objective of education, multi-literacy is aimed at through programmes for languages and other school-subjects, which means that communication competence and ability to find relevant information, to question and discuss it is guaranteed with modern learning materials. Some of the basic school materials have got the Best European Learning Material Silver Award 2014, Best European Schoolbook Silver Award 2012, and Best European Schoolbook Bronze Award 2006 (IARTEM, Belma).

In the other hand, not the schoolbooks but teachers are the key to a constructional dialogic learning-teaching approach. Since teaching literacy skills is seen as a cross-curricular competence integrated in subject-teaching (see e.g. Graz Group, 2015), teacher training programmes must be changed to integrate literacy knowledge and genre awareness – that is not the case in the Estonian state universities training teachers. So far, it has been part of class teacher and language teacher initial education, but it should be also integrated in all teacher training programmes. Teachers, especially subject teachers, need in-service courses and programmes about effective literacy instruction and integrating literacy skills into the subject classes they teach.

The syllabus of Estonian Language and Literature in Estonia strongly states that teachers should use a wide range of activities and instruction to develop students' comprehensive and metacognition skills. Also the importance of use of strategies and activities which are similar to those we use in real life for reading (and writing) different texts for different purposes is named in every possible place. However, we still don't have enough research about what is really going on in the everyday classroom. As some MA work has shown that lower basic school students understand for example terms of science while

reading quite well, it can be said that our teachers use a range of reading strategies and instruction (Erma, 2013).

**Digital literacy as part of the curriculum for primary and secondary schools:** The national curricula for basic and upper secondary schools state cross-curricular topics, including the following (Estonia. Government of the Republic, 2011a, 2011b):

- 1) information environment – the aim is for the student to develop into an information-conscious person who is aware of the surrounding information environment, is able to analyse it critically and acts according to his or her aims and society's communications ethics;
- 2) technology and innovation – the aim is for the student to develop into a person who is well-disposed toward innovation and who knows how to use contemporary technologies in a goal-oriented manner, who copes with the rapidly changing technological living, learning and work environment.

Technology is also taught as a subject on a basic school level (Estonia. Government of the Republic, 2011a), and its importance recognised at all school levels in the Estonian Lifelong Learning Strategy (Ministry of Education and Research, 2014).

**Early identification of and support for struggling literacy learners:** Early identification of learning difficulties and applying suitable interventions is usually a duty of the course supervisor or the class teacher (Ministry of Education and Research, 2012). Pedagogical-psychological assessment, observation and gathering information about the pupils and their environment as well as speech therapy examinations are conducted, too. Schools usually have appointed a person who coordinates cooperation of support specialists and teachers for the purpose of best supporting the learning of pupils with learning difficulties (European Agency for Special Needs and Inclusive Education, 2013a).

The national curriculum states that differentiated learning assignments are to be used by all teachers. The content and level of difficulty should be chosen in such a way that pupils study at a suitable level of exertion, considering the individuality of the students (Estonia. Government of the Republic, 2011a). When it comes to special educational needs of all kinds, schools are obliged to implement the following kinds of support measures for children: supported education in groups or individually; implementing of special education methodology and assistance; implementing of a curriculum that corresponds to the abilities of the students and of an adjusted curriculum; ensuring availability of technical facilities for disabled students; adaptation of the physical learning environment according to the type of disability if required; drawing up and implementing an individual curriculum if required; ensuring availability of services provided for in the rehabilitation plan, monitoring students' achievements and assessment which supports and directs the development of the students. (European Agency for Special Needs and Inclusive Education, 2013b). Estonia has highly developed technological tools for language instruction, which support pupils with language deficits and partly help to meet their needs in education (Estonian Language Foundation, 2011). In addition, there are several projects promoting reading and literacy (Estonian Reading Association, 2014). Public education is free of charge in Estonia.

The Education Act (1992, last amended 2009) states that one of the objectives of education is to create opportunities for everyone to engage in continuous learning. And also: the state and local governments shall ensure that everyone in Estonia has the opportunity to fulfil the obligation to attend school and the opportunity to engage in continuing education. In addition, it is stated that the Ministry of Education and Research shall direct and organise the preparation of study plans, study modules for

public educational institutions (except universities) and study materials for students with special needs and establish the requirements for educational literature in order to ensure conformity to the national curriculum. On special needs, it is stated that the local governments shall provide persons with learning disabilities and persons who need special support with the opportunity to study at a school of their residence. If suitable conditions are not found, the state and local governments shall provide such persons with the opportunity to study at an educational institution established for that purpose (Estonian Republic, 1992, last amended 2015, Chapt. 1: §2, Chapt. 2: §6; Chapt. 3 §10). Furthermore, the National Curriculum (2011) states that in planning and carrying out learning the special character of the pupil's perceptual and cognitive processes, abilities, linguistic, cultural and family background, age, sex, health status, interests and experiences shall be taken into account (Estonia. Government of the Republic, 2011a).

**The quality of pre-service and in-service teacher training:** The Estonian teacher training system insists that every teacher has to get a master degree in educational sciences or in a subject field he/she will teach. Subject-teacher education includes an academic year (60 ECTS) of studies in developmental psychology, teaching, and education. After getting an MA-degree, every teacher has to take one additional year of supervised practice (Estonian Teacher Training Requirements Framework, 2000, last amended 2015).

On the other hand, there is a major challenge to dignify teacher-status in general. After political changes forced by low birth rates, a generally critical economic situation (Statistics Estonia, 2015), relatively long study-period of 5 to 6 years, growing amount of administrative tasks, very low salaries (Euridyce, 2014, cf. Minifacts Estonia, 2015, p. 26), and other factors of social uncertainty have made the profession quite unpopular. For example, in Estonia, Malaysia, and England, a relatively small class size (fewer than 20 students; 16 in Estonia) is negatively correlated to job satisfaction (OECD, 2014, p. 444). As a result, the teacher training entrance rates are about 1-2 candidates per student-place or even lower (SAIS, 2015).

CPD in Estonia is free of charge to the teachers and leads to higher professional levels. Participation in in-service training is free of charge to teachers, and usually, schools or local authorities also compensate for transport and accommodation costs. Participating in CPD is one of the criteria considered in attestation and may lead to granting a higher professional level. There are professional standards for teachers at several professional levels, which describe the opportunities for the individual development of teachers. Developing an electronic self-assessment instrument has also been planned, to help teachers determine their need for training (Eurydice, 2015).

**Improving the quality of literacy instruction: Programmes, initiatives and examples:** A programme called "Reading is a Pleasure – Learn about Yourself through Literature" aims to encourage students to read good fiction. In addition, students shall learn to express themselves through drama and animation and give them the chance to see their own lives in contrast to teenagers' lives in other countries. This project can teach youths about friendship, love, relationships with classmates, teachers, parents, etc. and how rights, duties and relationships are solved. These topics are also discussed with foreign students. Books are chosen, read and presented to a partner. Animated films based on the books are made by the students. Extracts from the books are acted out by the students. They visit theatres, museums and meet writers (Reading is Pleasure, 2013).

There have been some projects and/or campaigns for a while, that support content area literacy among other things, like "Science Book Let you Know" (see ELINET website).

# Increasing Participation, Inclusion and Equity

## Pre-Primary Years

**Encouraging preschool attendance, especially for disadvantaged children:** The benefits of attending preschool institutions have been proven in many studies. The duration of attendance is associated with greater academic improvement (Mullis, Martin, Foy & Drucker, 2012). According to European Commission/ EACEA/ Eurydice/ Eurostat (2014, Figure C1 p. 62), the enrolment rate at age 4 is 89.1%. Estonia does not yet reach the European benchmark of at least 95% of children between age 4 and the start of compulsory education participating in ECEC (for an overview of European countries see table C1 in Appendix B).

The OECD Family Database (2014) offers more differentiated figures of participation rates at age 3, 4 and 5. According to 2010 statistical data, the participation rate is 91.2% for 5-year-olds, 92.0% for 4-year-olds, and 86.1% for 3-year-olds (OECD 2014) (for an overview of European countries see table C2 in Appendix B).

No child should be excluded from preschool because parents cannot afford to send their children to preschool/kindergarten institutions if they have to pay. While in half of the European countries the entire period of ECEC is free, in Estonia pre-primary education is not free. Parents pay fees in order to cover partially a number of the pre-primary institution financial issues (Eurypedia, 2014b). Estonia does not belong to the half of the European countries where the entire period of ECEC is free. Many countries provide at least one year of free pre-primary education.

**Identification of and support for preschool children with language difficulties:** According to the European Agency for Special Needs and Inclusive Education (2009), in Estonia children with special needs get support mainly in mainstream Kindergartens and only in some cases they attend a special Kindergarten. There is provision for support from educational psychologists, speech and language therapists, special educational needs teachers and other specialised professionals (European Commission/EACEA/Eurydice/Eurostat, 2014, p. 109). However, there is no systematic assessment of children in order to identify language development problems (Eurypedia, 2014a).

As the recent wave of migration may be big, Estonian universities have offered to voluntarily teach newcomers from Syria and other war regions.

**Compensating socio-economic and cultural background factors:** The Gini index is the most commonly used measure of inequality, and represents the income distribution of a nation's residents with values between 0 (maximum equality) and 100 (maximum inequality). In the European countries participating in ELINET the range is from 22.6% in Norway to 35% in Spain (for an overview of European countries see table A1 in Appendix B). With 32.5 % Estonia is at the lower end of the distribution.

## Children and Adolescents

**Support for children with special needs:** In Estonia, the situation of people with special needs is well mapped. As to their rights, both physical access to public places, incl. schools and libraries, and intellectual access to information presented in a physical, electronic or other format are constantly growing. Intellectual access through information technologies includes access to websites, images, classifications, catalogues, archives, the records of the state and local government, periodicals, digital documents and library services in an appropriate manner and form (e.g. use of large print, Braille, audio recording, subtitles) (Oliver et al. 2012). Not only children from culturally disadvantaged families are “at risk” in their literacy development, but also those with very low birth weight and severe prematurity, factors that are associated with developmental disabilities, including reading and writing disabilities. Also cognitive and sensory disabilities must be considered.

**Support for migrant children and adolescents whose home language is not the language of school:** There are about 10% of school-aged students instructed in languages other than Estonian, mainly instructed in Russian and English (Statistics Estonia, 2014). Teaching multilingual classes is a part of teacher training but needs more attention as it comes to training in-service teachers. All graduates pass the national examination in Estonian as their first or second language.

In general, also relatively high PISA results of Estonia need attention. By the share of those who demonstrated basic or higher level reading proficiency, Estonia was the best in Europe in reading, math, and natural sciences. Like in many countries, children with any mother tongue other than the official language(s) of the state (7% of participants), though, need more attention. In Estonia, the PISA 2012 results of those who did not use L1 were relatively low, showing a deficit equal to nearly a year of studies. This relatively low functional proficiency in reading may cause problems in further studies and in being able to compete in the labour market in the future. At the same time, 21 % of the students performed the test in Russian (HTM, Innove, 2013, p. 1), making it hard to assess their potential of socialisation, the official language being Estonian. The problem is bigger, knowing that even when performing test in Russian, those students’ results were 44 point lower the mean result of the country in reading, 31 p lower in math, and 35 points lower in natural sciences (HTM, Innove, 2013, p. 6). This makes our good result hard to compare with the countries where the test is performed in the official language.

The problem itself is much wider. In the era of mobility and constant short or long term migration, being literate (or even having tertiary level professional education) does not mean managing in the countries with official languages other than one’s mother tongue. Surveys such as Surveylang (2013) give information about subskills in some languages taught in Europe but cover neither most of the European languages nor mother tongues spoken in Europe.

**Preventing early school leaving:** According to Eurostat (2015), the rate of early school leavers for all education stages in Estonia was 9.7% in 2013 – down from 10.3% from the year before. The target value set for early school leaving (ESL) in 2020 is 9.5%. In the general education system, the number of school leavers was quite high in upper secondary school reaching 7.4% in 2013 (Praxis, 2015).

The compulsory education in Estonia lasts for 9 years: from the age of 7 until the age of 16 (Eurydice, 2014b). When it comes to students (ISCED 1-6) aged 15-24 years, 62.1% of the population was in some form of education in 2011. This seems to be an increasing trend, as in 2012, the rate stood at 63.4% (Eurydice, 2012).

The percentage of 18 year-olds in education was 87.3% in 2011, which situated Estonia above the EU-27 average (80.7%). By 2012, this indicator increased to 92.1%. Since 2001, Estonia has consistently exceeded the EU average value for this indicator (Eurydice, 2012).

**Increasing participation, inclusion and equity for children and adolescents: Programmes, initiatives and examples:** Recently, a Welcoming Programme (regulation) has come into force in Estonia. Established on the basis of the Aliens Act, subsection 491 (2) of the Citizen of the European Union Act and the Act on Granting International Protection to Aliens, the regulation is meant to help foreign nationals, citizens of the European Union and their family members, who have lived in Estonia less than five years (Estonia. Minister of Interior, 2015). Subfields of the programme include multiple supporting of family life (Annexe 5), children and young people (Annexe 7).

In Estonia, the financial situation is relatively good only in the sense that the state has no loans put on the shoulders of the future generations. The state support to families with children with no special needs is very small. Compared to EU-28 where the mean social protection expenditure rate is 29.1% of GDP, social protection is very low: Estonia is named among the countries, where the lowest share of 15.1% of GDP was registered (Eurostat, 2014). As people are relatively poor (the mean salary still staying under 1,000 euros per month; see more *Labour costs and wages* in Statistics Estonia, 2015, pp.24-27), the state gives financial assistance to institutions, providing music, sport, and arts education to people under the age of 23 years. According to public information available via an Internet search, local governments also support those schools financially to some extent.

Based on Social Integration of Disabled Persons (Statistics Estonia, 2014), the situation of people with special needs is quite hard. In 2013, 13% of persons with activity limitations lived in severe material deprivation, which is 5 percentage points higher than the corresponding share of the total population. The average annual expenditure per household member was 3,500 euros in 2012 for households as a whole. The expenditure per household member in households with members with disabilities, a loss of capacity for work and/or activity limitations was, on average, about 500 euros less, despite the extra expenses coming from disability situation (Statistics Estonia, 2014).

In Estonia, the immigration level is very low; the number of asylum seekers was 160 in 2014 and 100 in 2013 (International Migration Outlook, 2015, p. 200). The literacy level of migrant families is relatively high. As a result of that, main problems do not concern literacy but cultural integration and learning local languages. To give constant cultural support to all migrant families, the national Integration and Migration Foundation was founded in 1998. Its values are declared to be competence, caring, co-operation, and openness. The foundation works under three national programmes, "Integration programme by fields of society", the foundation programme 2015-2020, and the foundation programme for activities of the year. All activities are financed by the state, although some of the finances come from EU structural assistance to Estonia (European Social Fund). According to their homepage (MISA, 2015) the foundation supports local innovations and activities, they regularly organise language and culture camps for families with children all over the country as well as informal occasions dedicated to language and cultural matters.

In Estonia, problems associated with early school leaving are monitored in great detail (Eurydice, 2013). A central monitoring body is the Estonian Educational Information System (EEIS), which is a national register that consolidates information on the education system, including information on educational institutions, pupils, teachers, graduation documents and curricula. Local governments can use EEIS to access information on the pupils living in their territory, and on those who have moved to a school



located in the territory of another local government. Educational institutions are obliged to enter information into the EEIS and to check and amend the entered information for accuracy. Pupils and teachers can view the education-related information held on them. The register tracks each student's education career. It is also visible if the student has dropped out of school and if he/she has continued in an evening school, vocational school, etc. The register does not provide data about entry into the labour market (European Commission, 2013).

The Lifelong Learning Strategy 2020 of Estonia states that learning opportunities should be available to all members of society, particularly those with lower competitiveness in the labour market, so that they can acquire a qualification and maximise their potential in their working life as well as in their family life. Target groups such as immigrants, the unemployed, those without secondary education, or others will be offered flexible training courses to develop their key competences and to increase their readiness to learn. Support services will also be offered and standards for support services will be developed, which will allow for offering of quality services regardless of the area or region (Ministry of Education and Research, 2014). It has been stated that basic schools also have an important role guiding young people in order for them to choose the area where to continue their studies according to their abilities and interests - while being aware of different opportunities (Ministry of Education and Research, 2012).

# 3 General Information about the Estonian Education System

Estonia is an EU and its euro-zone member state with 1.31 million inhabitants (2015), the official languages being Estonian and sign language, and the number of other mother tongues declared to be 157 (Population and Housing Census, Estonia, 2011). The number of inhabitants of preschool- and school-age is 255,000, 68% of them native Estonian speakers, and 32% speaking other languages as their mother tongues (Statistics Estonia, 2015, RV0211). Children's rights, well-being and need for assistance are protected by a Child Protection Act entering into force in 2016 (Estonian Republic, 2014). The Estonian Ministry of Education and Research (2015) provides the following description of the Estonian educational system:

General education in Estonia is divided to pre-school, basic and upper-secondary education. 7% of schools provide general education for children with a special need (Statistics Estonia, 2014, HT14) which can be chosen for a child by his/her family.

Pre-school education is delivered to children between the ages of 18 months to seven years in dedicated educational institutions. The main aim of the early stages education is to support the child's family through fostering the child's growth and development by taking into account their individuality. Facilities for the pre-school education (working both in Estonian and sign language as official languages and in Russian as a main minority language) are provided by the local authorities at the request of parents. By law, pre-school education is acquired at a preschool institution or at home. Pre-school children's institutions follow national curriculum (Estonia. Government of the Republic, 2008). According to the Preschool Child Care Institutions Act, children who have passed the pre-school curriculum will be issued a certificate that records the child's development, and parents submit this certificate to the school where the child will be enrolled (Estonian Republic, 1999, last amended 2015).

The 9-year basic education serves as the mandatory minimum of general education requirement. At this stage, the school system is divided by needs. Families choose either a school where general education is provided in Estonian (90% of students), or school where the basic education is provided in Russian (10% of students), the third from the latter teaching Estonian as a local official language by partial immersion, the others as a second language.

The basic school is divided into three stages: stage I including grades 1-3 (age 7-9), stage II including grades 4-6 (age 10-12) and stage III including grades 7-9 (age 13-15). Graduating the basic school requires that the student masters the curriculum at least at a satisfactory level and passes three basic school graduation exams consisting of the Estonian as a first or as a second language functional subskills test, mathematics and an exam on a subject of the student's choice as well as completing a creative assignment.

Children are under obligation to go to school until the age of 17. Following graduation from basic school, there are a number of possibilities. There is a possibility to acquire general secondary education at upper secondary school, vocational secondary education at some vocational institution or, for a few, simply an occupation. General secondary education is acquired at the upper secondary school level (grades 10-12). The study programme at an upper secondary school is arranged into mandatory and voluntary courses whereas vocational schools offer at least the mandatory part of the

programme. Graduation from upper secondary school requires the student to complete a curriculum consisting of at least 96 individual courses passed at a satisfactory level as a minimum, passing the state exams consisting of the Estonian language or Estonian as a second language, mathematics and a foreign language exam, passing the upper secondary school exam as well as completing a student research paper or practical work during the entire study period. Attaining general secondary education entitles students to continue their studies at a higher educational institution or to obtain vocational education.

According to the Ministry of Education and Research, the school's running costs will be covered in most cases by local governments. Local governments are responsible for establishing, re-arranging and closing general education schools. Local governments keep account of the number of attending children, ensure school attendance control, and make arrangements for school transport and the provision of school meals among other things. For funding the schooling, local governments receive state subsidy that is calculated based on the number of the students in municipal schools. The state subsidy is used for covering expenses on teachers' salaries, social taxes, training and textbooks. Similar subsidies are also made available to private general education schools as prescribed by the Private Schools Act. Schools for the children with special needs are mainly state schools funded directly by the ministry of education; this way of covering the costs also goes with state upper secondary schools established lately (under 2% of schools).

## 4 Literacy Performance Data for Children and Adolescents

There are a number of challenges in describing literacy levels in Estonia.

First, the Estonian national curricula specify that preschool facilities, basic and upper secondary schools should focus on general communicative competence as a key competence. In those documents, the literacy concept is understood wider, pointing equally to reading and writing—i.e., skills to manage written text on paper and in the Internet (Estonia. Government of the Republic, 2008, 2011a, 2011b). These subskills are seen as inseparable from each other and from the oral skills of listening and speaking. All those skills are brought together in a skill of oral or written mediation of both L1 and foreign language texts (see, e.g. CEFR, 2007, or Brandt, 2015). As a result, the school curricula are focussed on working with any text as a part of a defined action.

Second, in Estonia there is no legal concept of primary education: it may refer to either the first stage of general education (age 7-9, grades 1-3) or to two first stages of this education when children are mainly taught by a class-teacher (age 7-12, grades 1-6). At the same time, the legal concept refers to grades 1-4 in Germany and many other countries, which makes it more difficult to draw international comparisons.

Estonia has not taken part in PIRLS studies either. There are local surveys and test of 3<sup>rd</sup> graders but their measures show only how students manage the functional multi-literacy objectives targeted by a current national curriculum. At the same time, the PISA results from 2006, 2009, and 2012 show that by the age of 15, the mean reading literacy level of Estonian pupils is consistently high. However, according to the national daily newspaper Postimees (2013-12-05), our teachers are not happy with efficiency of their work: they are mainly concerned about the 9.1% of students who are struggling readers, performing at Level 1 or below on PISA 2012 reading literacy.

There are local studies on writing and vocabulary development of students in grades 3 and 6 (Uibu & Timm, 2014) and in grades 5, 7, 9 and 12 (Kerge, Uusen, & Põlda, 2014; Kerge, Uusen, Puksand, & Põlda, 2014) published in Estonian., but the outcomes of these studies are not internationally comparable. There are also data on acquiring L2 written language and vocabulary by CEFR<sup>6</sup>-proficiency levels A, B and C1 by non-Estonians as compared to native Estonians, with specific reference to writing and vocabulary richness (Alp, Pajupuu, & Kerge, 2014; Pastuhhova, 2015, both in English).

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<sup>6</sup> CEFR: Common European Framework for Languages

## 4.1 Performance Data for Primary Children

The performance data for primary children are derived from the IEA's PIRLS studies.

Inaugurated in 2001 and conducted every 5 years, **PIRLS (Progress in International Reading Literacy Study)** is an assessment of pupils' reading achievement at fourth grade organized by the Association for the Evaluation of Educational Achievement (IEA). The survey was administered in 35 countries in 2001, 45 education systems in 2006, and 50 in 2011. PIRLS assesses different purposes for reading (literary and informational) and different reading processes (retrieve explicit information, make inferences, interpret and integrate ideas and information, examine and evaluate content, language, and textual elements). Both multiple choice and open-ended questions are used.

Combining newly developed reading assessment passages and questions for 2011 with a selection of secure assessment passages and questions from 2001 and 2006, PIRLS 2011 allowed for measurement of changes since 2001. PIRLS 2011 also examined the national policies, curricula and practices related to literacy in participating countries, and included a set of questionnaires for students, parents/caregivers, teachers, and school principals to investigate the experiences that young children have at home and school in learning to read, in particular their attitudes and motivation towards reading.

For all PIRLS data used in this report, detailed tables with data for all participating countries in ELINET are provided, together with the EU averages (see Appendix C: ELINET PIRLS 2011 Data, Appendix D: ELINET PIRLS 2006 Data).

Estonia did not participate in PIRLS studies and thus there are no comparable international data for primary-level children's literacy.

In Estonia, the primary pupils' reading and writing skills are assessed in standard-determining tests. These tests take place in the 3rd and 6th grades of the basic school. The 3rd-grade standard-determining tests are in Estonian or Russian (in the schools with Russian as a language of instruction) and mathematics. 6th-grade standard-determining tests are in Estonian or Russian as mother tongue and Estonian as a second language, in mathematics and in a third subject. The standard-determining tests are designed to gather information on the acquisition of the curriculum in Estonia. (Innove, 2015a)

In 2015, 98.4% of 3rd grade pupils and 99.9% of 6th grade pupils solved at least 50% of the Estonian test correctly (Innove, 2015b).

There are also many national studies about reading, writing and spelling in the first three or six years of education (Kängsepp, 2015; Soodla, Kikas, 2014; Timm, Uibu, 2015; Uibu, Männamaa, 2014; Uibu, Timm, 2014; Uibu, Tropp, 2013; Uibu, Tropp, 2012; Uusen, 2006).

Main outcomes connected with the area of literacy (focused on reading) were rather positive and similar with PISA results (see above). Writing skills were not actually the issue in PISA, but the results of the research of writing skills were also satisfactory: there are not more students in need of special help in the area of spelling than in other Europe countries (8% on average); students made more syntax than spelling errors; 6<sup>th</sup> grade students' writing skills were not significantly better than 3<sup>rd</sup> grade students' in some sub-skills of writing; writing longer and more meaningful text does not cause more spelling or grammar mistakes.

## 4.2 Performance Data for Adolescents

The performance data are derived from the OECD PISA study.

The Programme for International Student Assessment (PISA) led by OECD<sup>7</sup> **assesses the skills and knowledge of 15-year-old students every three years in all OECD countries and** in a number of partner countries.

Since 2000, PISA has been testing students in reading, mathematics and science. The OECD assessment also collects information on students' backgrounds and on practices, motivational attributes and metacognitive strategies related to reading.

The PISA tests assess different aspects of reading literacy – retrieve information, interpret, reflect and evaluate on texts – and use a variety of texts – continuous (prose) and non-continuous (texts including graphs, tables, maps...). About half of the questions are multiple-choice, the other half open-ended (short or constructed answers). Results are reported on scales defining different levels of proficiency ranging from 1 (low performing) to 6 (high performing). Level 2 is considered as the level all 15 year-olds should reach, and will enable them to participate effectively to society. Since 2015, PISA has been administered on computers only in most participating countries.

The follow-up of students who were assessed by PISA in 2000 as part of the Canadian Youth in Transition Survey has shown that students scoring below Level 2 face a disproportionately higher risk of poor post-secondary participation or low labour market outcomes at age 19, and even more so at age 21, the latest age for which data from this longitudinal study are currently available. For example, of students who performed below Level 2 in PISA reading in 2000, over 60% did not go on to any post-school education by the age of 21; by contrast, more than half of the students (55%) whose highest level was Level 2 attended college or university (OECD 2010a, S. 52).

### 4.2.1 Performance and variation in reading; proportion of low and high performing readers

Estonia has taken part in the PISA assessments in 2009 and 2012. In 2012, Estonia scored significantly above the EU average on print reading with 516 score points (Table 1). Estonia's score in the preceding PISA 2009 assessment was significantly lower, 501 points, yet still above the EU average (Table 2).

Table 1: Reading performance in PISA 2012

	Mean	S.E.
Estonia	<b>516</b>	(2.0)
EU-27	489	(0.6)

Significant differences between the country and the EU average are shown in **bold**

Table 2: Trends in reading performance – 2000, 2009 and 2012

	2000		2009		2012		Change 2000–2009		Change 2009–2012		Change 2000–2012	
	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.
Estonia	–	–	501	(2.6)	516	(2.0)	–	–	<b>15</b>	(4.2)	–	–
EU	489*	(0.7)	486**	(0.6)	489***	(0.6)	-3*	(5.0)	<b>5**</b>	(2.7)	3*	(6.0)

Significant differences between assessment cycles in **bold** \*EU21 \*\*EU26 \*\*\*EU27

<sup>7</sup> See: <http://www.pisa.OECD.org>.

Differences between the top and the lowest performing student groups are significantly below the EU average in Estonia, as are differences between boys and girls (Table 3). This indicates a relatively low variation in performance throughout the age group. Considering the relatively high mean scores Estonia has achieved, this suggests a rather good performance in the student population overall.

Table 3: Spread of achievement. Difference between 10th and 90th percentiles on the reading scale, all students and by gender – PISA 2012

	Difference 90 <sup>th</sup> –10 <sup>th</sup> for all students		Difference 90 <sup>th</sup> –10 <sup>th</sup> for girls		Difference 90 <sup>th</sup> –10 <sup>th</sup> for boys	
	Score diff.	S.E.	Score diff.	S.E.	Score diff.	S.E.
Estonia	<b>206</b>	(4.1)	<b>190</b>	(4.7)	<b>206</b>	(5.1)
EU-27	251	(1.3)	230	(1.2)	259	(1.6)

Significant differences between the country and EU in **bold**

In Estonia, the proportion of students showing low performance (below level 2) in reading is well below the EU average (9.1%) (Table 4). The percentage of these pupils has significantly decreased in Estonia since 2009 (Table 5). The proportion of very proficient readers is close to the EU average in 2012.

Table 4: Percentage of low performing (below level 2) and high performing (levels 5 and 6) students - PISA 2012

	Below level 2		Levels 5 and 6	
	%	S.E.	%	S.E.
Estonia	<b>9.1</b>	(0.6)	8.3	(0.7)
EU-27	19.7	(0.2)	7.0	(0.1)

Significant differences between the country and EU in **bold**

Table 5: Trends in the proportion of low performers (below level 2) in reading, all students, and by gender – PISA 2000, 2009 and 2012

	All students		Girls		Boys	
	%	S.E.	%	S.E.	%	S.E.
2000	–	–	–	–	–	–
2009	13.3	(1.0)	7.3	(0.9)	18.9	(1.5)
2012	<b>9.1</b>	(0.6)	<b>4.2</b>	(0.7)	<b>14.2</b>	(1.1)

Significant differences between assessment cycles in **bold**

## 4.2.2 Gaps in reading performance

As in every European country there are achievement gaps between different groups.

### Socio-economic status

The gap in reading performance according to students' socioeconomic background (top and bottom quarters) is approximately 60 score points. This is below the EU average (93 points) (Table 6). According to PISA reports, 60 points is still equivalent to about one and a half years of schooling (OECD, 2010b).

Table 6: Difference in reading performance between the bottom and the top national quarter of the PISA index of economic, social and cultural status – PISA 2009

Difference between the bottom and the top national quarter of the PISA index of economic, social and cultural status (students' self-reports)	
Score diff.	
Estonia	<b>58</b>
EU-26	<b>89</b>

Significant differences in reading performance between bottom and top national quarters in **bold**

### Migration

In Estonia, 8% of students have an immigrant background, which is very similar to the EU average (Table 7). The performance gap between native students and students with an immigrant background is also similar to the EU average, yet the overall test scores in both groups tend to be above the EU average in Estonia. This may be partly due to the fact that only a small percentage of pupils with an immigrant background speak a language other than the test language at home (see below).

Table 7: Percentage of students and reading performance, by immigrant status – PISA 2009

	Native students				Students with an immigrant background (first- or second-generation)				Difference in reading performance between native students and students with an immigrant background	
	Percentage of students	S.E.	Performance on the reading scale		Percentage of students	S.E.	Performance on the reading scale		Score dif.	S.E.
			Mean	S.E.			Mean	S.E.		
Estonia	92.0	(0.6)	505	(2.7)	8.0	(0.6)	470	(6.5)	<b>35</b>	(6.3)
EU-26	91.7	(0.0)	490	(0.4)	8.3	(0.0)	452	(6.4)	<b>38</b>	(6.4)

Significant differences between native and students with an immigrant background in **bold**



## Language spoken at home

In Estonia, only 2.6% of pupils report speaking other language than the test language at home (Table 8). This is well below the EU average (13.3%). The performance gap between those who speak test language at home and those who do not is 40 score points – significantly less than in the EU on average, yet equivalent to one year of schooling (OECD, 2010b).

Table 8: Percentage of students and reading performance, by language spoken at home – PISA 2012

	Speak test language at home				Speak another language at home				Difference in reading according to language spoken at home	
	Per-centage of students	S.E.	Performance on the reading scale		Per-centage of students	S.E.	Performance on the reading scale		Score dif.	S.E.
			Mean	S.E.			Mean	S.E.		
Estonia	97.3	(0.4)	503	(2.6)	2.7	(0.4)	463	(7.8)	<b>40</b>	(8.0)
EU-27	86.7	(0.0)	494	(0.4)	13.3	(0.0)	441	(5.4)	<b>54</b>	(5.4)

Significant differences according to language spoken at home in **bold**

## Gender

In Estonia, the performance gap between boys and girls is the same as the EU average: 44 score points (Table 9). Girls significantly outperform boys, as is the case in the vast majority of countries. The score point difference (44) stands for a gap equivalent to approximately one year of schooling (OECD, 2010b). Both boys' and girls' performance in print reading significantly increased in 2012 (Table 10). It remains to be seen, whether this trend still continues in the 2015 assessment.

Table 9: Mean reading performance by gender, and gender differences – PISA 2009

	Boys		Girls		Difference (B – G)	
	Mean	S.E.	Mean	S.E.	Score diff.	S.E.
Estonia	480	(2.9)	524	(2.8)	<b>-44</b>	(2.5)
EU-26	463	(0.5)	506	(0.4)	<b>-44</b>	(0.5)

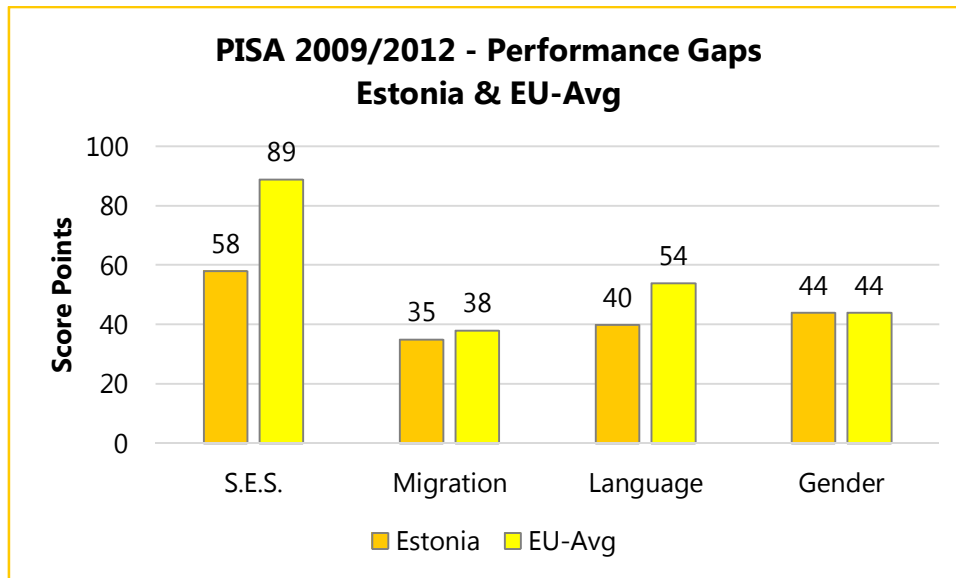
Significant differences between boys and girls in **bold**

Table 10: Trends in reading performance by gender – PISA 2000, 2009 and 2012

	ESTONIA				EU			
	Girls		Boys		Girls		Boys	
	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.
2000	–	–	–	–	506*	(0.8)	473*	(0.9)
2009	524	(2.8)	480	(2.9)	507**	(0.7)	464**	(0.8)
2012	<b>538</b>	(2.3)	<b>494</b>	(2.4)	511***	(0.6)	468***	(0.8)

Significant differences between assessment cycles in **bold** \*EU21 \*\*EU26 \*\*\*EU27

Figure 1: gaps in achievement for different (though sometimes overlapping) groups of 15-year olds in Estonia, compared with the corresponding EU average differences.



SES: Difference between top and bottom quartiles of PISA economic, social and cultural status scale; Migration: difference between those with/without a migrant background; Language: between those who spoke/did not speak PISA test language at home; Gender: Girls – Boys.

### Engagement and metacognition

The PISA study not only assessed 15 year-olds’ reading and literacy skills. Students were also asked in a questionnaire about their reading attitudes and metacognitive strategies. More precisely, these questions asked about students’ enjoyment of reading and their awareness of efficient reading strategies in order to summarize a text in one hand, and to understand and remember a text on the other hand. Scores have been computed for these three scales, and relationships between enjoyment of reading, and metacognitive strategies with PISA reading proficiency scores have been computed. They are reported in the following tables.

In Estonia, the gap between those who truly enjoy reading and those who enjoy it the least, is similar to the EU average with 94 score points (Table 11). Although the average scores of EU and Estonia are alike, this is still a great gap – indicating differences equivalent to more than two years of schooling. It is to be noted, however, that reading enjoyment and performance have a reciprocal relationship: E.g. students who have poor reading skills might not truly enjoy reading and thus read less and have fewer opportunities to develop their skills. Students with good skill, on the other hand, enjoy reading and thus read more.

Table 11: Mean reading scores between students poorly engaged and highly engaged in reading – PISA 2009

	Lowest quarter		Highest quarter		Difference
	Mean	S.E.	Mean	S.E.	
Estonia	459	(3.2)	553	(3.2)	<b>94</b>
EU-26	444	(0.8)	543	(0.8)	<b>99</b>

Significant differences according to the level of reading engagement in **bold**

The gap between those who have knowledge of efficient strategies in understanding and memorizing texts, and those with limited knowledge about these strategies is 82 score points (Table 12). This is a considerable gap, also equivalent to two years of schooling, but still comes under the EU average. This difference reflects how closely reading proficiency and awareness of efficient reading strategies are linked.

Table 12: Mean reading scores between students in the low and top quarters of understanding and remembering strategies

	Lowest quarter		Highest quarter		Difference
	Mean	S.E.	Mean	S.E.	
Estonia	458	(3.2)	540	(2.8)	<b>82</b>
EU-26	433	(0.8)	531	(0.8)	<b>98</b>

Significant differences according to the degree of awareness of efficient reading strategies (understanding and remembering strategies) in **bold**

On a scale assessing students awareness of summarisation strategies, the difference between the top and bottom quarters is 83 score points – equivalent to two years of schooling, yet slightly less than the EU average (90 points) (Table 13).

Table 13: Mean reading scores between students in the low and top quarters of summarizing strategies

	Lowest quarter		Highest quarter		Difference
	Mean	S.E.	Mean	S.E.	
Estonia	461	(3.3)	543	(2.7)	<b>83</b>
EU-26	440	(0.8)	530	(0.7)	<b>90</b>

Significant differences according to the degree of awareness of reading strategies (summarizing strategies) in **bold**

The overall test scores by these three factors tend to be slightly higher in Estonia compared to the EU average points, reflecting higher overall performance.

**Strengths and challenges:** Estonian students' average score in reading has improved significantly: in 2006 and 2009, Estonian students' average score was 501 points, but in 2012 it was 516. Differences between the top and the lowest performing student groups are significantly below the EU average differences, as are differences among both boys and girls. The proportion of students with low performance (below level 2) on PISA reading is below the EU average (9.1%). The number of these pupils has significantly decreased since 2009.

The gap in reading performance according to students' socioeconomic background is also significantly below the EU average, but it is equivalent to approximately one year of schooling. The gender gap is also equivalent to approximately one year of schooling: girls significantly outperform boys, like in the vast majority of countries. It is important to think how to decrease these gaps.

# 5 Policy areas

The High Level Group of Experts on Literacy (2012, p. 38) recommended that all EU Member States should focus on the following areas as they craft their own literacy solutions:

- 1) Creating a more literate environment
- 2) Improving the quality of teaching
- 3) Increasing participation, inclusion and equity (with the term “equity” was added by ELINET).

The following parts refer to these three key issues, however some overlapping may occur.

In order to achieve as much comparability as possible across countries, quantitative and qualitative indicators for which information from international data are available are reported. Appendix A provides more information on criteria for the choice of indicators and the chosen indicators for the pre-primary age group. For each of these indicators Appendix B contains a table with numbers of the European countries participating in ELINET. Appendix C has been created using the international database for PIRLS 2011 – and contains separate tables for all information reported. If countries did not participate in PIRLS 2011, data for PIRLS 2006 are referred to. Appendix D offers this information for the PIRLS 2006 data.

## 5.1 Creating a literate environment for children and adolescents

The EU High Level Group of Experts on Literacy stated the following in relation to **creating a more literate environment**:

“Creating a more literate environment will help stimulate a culture of reading, i.e. where **reading for pleasure** is seen as the norm for all children and adults. Such a culture will fuel reading motivation and reading achievement: people, who like to read, read more. Because they read more, they read better, and because they read better they read more: a virtuous circle which benefits individuals, families and society as a whole.” (HLG report 2012, p. 41).

Parents play a central role in children’s emergent literacy development. They are the first teachers, and shape children’s language and communication abilities and attitudes to reading by being good reading role models, providing reading materials, and reading to the child.

Schools play an important role in offering a literate environment for students. Schools may foster reading motivation and reading for pleasure by establishing school and classroom libraries, offering a wide variety of books and other reading material in different genres, providing sheltered and comfortable spaces for individual reading activities (like reading clubs), and not forcing children into having to express and exchange their individual (intimate) reading experiences.

However, schools do not have sole responsibility. A broad range of actors may shape literacy motivation, from parents and peers to libraries. Parents may provide role models and influence children’s attitudes towards literacy practices. Also, libraries have a vital role if they offer free books, especially for families who cannot afford to buy books. Regional or national campaigns may inspire

children and their parents to engage in reading activities. (Cf. ELINET Country Reports, Frame of Reference, pp. 29ff.)

Adolescence is a crucial phase in life where young people develop long-term *identities and self-concepts* which include media preferences and practices (*media identity*). In this perspective, it is of great importance that families, schools and communities offer young people rich opportunities to encounter the *culture of reading* and develop a stable *self-concept as a reader/writer* and member of a literary culture. This includes access to a broad variety of reading materials (in print and electronic forms) and stimulating literate environments in and outside of schools; it also includes opportunities to get actively involved in engaging with texts, and communicating, reflecting on and exchanging ideas about texts with peers and 'competent others', such as teachers or parents (Ibid., pp. 45f) .

### 5.1.1 Providing a literate environment at home

The **home learning environment**, particularly in the first three years, is extremely important (Brooks et al. 2012). It determines the quantity and quality of interactions between the infant and the primary caregivers, who are the most powerful agents of language development, both receptive and expressive, in the context of everyday activities and experiences. During these years, experience-dependent creation of synapses is maximal. We know that the more words the children are exposed to, the more they can learn. Caregiver-child relations in their turn strongly influence the ability to learn, by influencing self-esteem, general knowledge and motivation.

Estonia did not participate in PIRLS study and thus there is no comparable data for this topic. The national data on visiting theatres, cinemas, museums, concerts, and reading (printing, lending, buying) books can be concluded from the official statistics. (E.g., in English, see *Culture* in Statistics Estonia, 2015.)

**Strengths and challenges:** Since reading to the child is a predictor of future literacy achievement it is a matter of concern that there are important differences among parents related to this practice with the consequence that gaps based on social class, migrant status or other factors are established very early in children's lives. In Estonia, two thirds of parents of young children read bedtime stories to their child every day or at least a couple of times a week; the speech development of these children is significantly better than those of children whose parents do not read bedtime stories (Tammemäe, 2009, pp. 81-82).

There is a need for programmes **that raise awareness of all parents** that literacy is a key to learning and life chances and that the basis for good literacy achievement is laid in early childhood. In particular there is a need for more family literacy programmes with **a focus on supporting all parents and particularly those who may be at risk of social and cultural disadvantage** in understanding and fostering the literacy development of their children.

### 5.1.2 Providing a literate environment in school

**Context for Estonia:** According to PISA 2009, 39 percent of Estonian 15-year-olds report not to read for pleasure outside of school on a daily basis. There is a clear gender difference as 53 percent of the boys and 23 percent of the girls report this (OECD, 2010c, p. 138.) On the other hand, as literature is a separate school subject from grade 5, schoolchildren read quite a lot based on curriculum demands and may not see this as reading for pleasure (see Puksand, 2012).

As we know from the PISA and other studies, there is a high correlation between reading for pleasure and reading performance. Therefore, schools, libraries, families and communities should do more in order to support reading motivation, reading habits and a stable self-concept as a reader among adolescents, especially boys and students from disadvantaged families (low SES, migrant background).

### **Availability and use of libraries**

Estonia did not participate in the PIRLS studies and thus there is no comparable data for the topic of use of classroom libraries. By law, schools provide their students “the opportunity to use the school library” (Estonia. Government of the Republic, 2011a, § 6, 2011b, § 7). In 2007, most of the school- and public libraries of the smaller places were united. According to national statistics 2013, there were 540 schools, 68% having their own (not united) library, the others using a public library (551 public libraries, many of them in the same house). The libraries are well stocked. In 2013, the mean number of books per school library was 7773 and the mean number of loans per year was 1924 (i.e., 48 books per a student per year), the budget of library development being 5021 euros per year (Estonian Statistics, 2015, KU031). In most of the schools, every class- and subject-teacher has his/her special teaching-room with its relevant library.

**Strengths and challenges:** As a challenge, cuts of state budget affect libraries. On the other hand, a new policy of the government is to support e-reading which has led to publishing e-books of the classic Estonian free and of the world literature for very low prices (Digiraamat, 2015). Within the programme of Development of Libraries (Estonia. Ministry of Culture, 2015), public and school libraries are to be equipped with high quality original and translated literature, incl. all needed for lifelong learning, youth and children (Recommendations for designing of collections, 2015).

### **5.1.3 Providing a digital environment**

A literate environment can also be created by incorporating digital devices into the school environment. About ten years ago, 82% of schools had already implemented ICT-skills as interdisciplinary ones in their local school-curricula (survey on implementation of cross-curricular objectives of the national curriculum forced in 2002; National Education Board, 2003, p. 10). Since 2011, every basic school is forced by law to make sure that it is possible to use, in studies, computers with an Internet connection and presentation equipment, and that age-appropriate study materials adapted to individual needs are used, including study materials and equipment based on contemporary information and communication technologies (Estonia. Government of the Republic, 2011a, § 6). There is no cross-national data on what kind of ICT-equipment is used. In Tallinn (approx. 1/3 of students living there), 70% of schools use PCs, 26% are provided with laptops, only 3% with tablets, and 1% with all kinds of modern ICT-technology. About 60-70% of more modern equipment is meant for student use and 79% of students report using them no less than in 1-2 classes per day, while the other 21% use them almost every school day (Estonian capital city survey, 2013). On the other hand, massive tablet-sets in schools need special means of loading and transportation and well-designed programmes of application (Rahn, 2014).

## Digital environment of primary and secondary students

The national curricula for basic schools list cross-curricular topics, including the following (Estonia. Government of the Republic, 2011a, 2011b, both last amended 2014):

- 1) information environment – the aim is for the student to develop into an information-conscious person who is aware of the surrounding information environment, is able to analyse it critically and acts according to his or her aims and society's communications ethics;
- 2) technology and innovation – the aim is for the student to develop into a person who is well-disposed toward innovation and who knows how to use contemporary technologies in a goal-oriented manner, who copes with the rapidly changing technological living, learning and work environment.

Technology is also taught as a subject on a basic school level (Estonia. Government of the Republic, 2011a), and its importance is recognised at all school levels in the Estonian Lifelong Learning Strategy (Estonia. Ministry of Education and Research, 2014) which lists digital focus in lifelong learning as one of its central points; "the objective is to apply modern digital technology in learning and teaching in a more efficient way and with better results, to improve the digital skills of the general population and to guarantee access to the new generation of digital infrastructure" (Estonia. Ministry of Education and Research, 2014).

Strategic measures of the objective include:

- 1) Incorporating a digital culture into the learning process;
- 2) Supporting digital learning resources in schools;
- 3) Accessing a modern digital infrastructure for learning
- 4) Creating and implementing assessment models for digital competence.

Examples of practical activities to reach these goals include teaching information technology at all school levels; developing a needs-based support system for those learners for whom acquiring personal digital devices is not affordable or who have specialised digital device needs due to a disability; implementing digital competence models and assessing students' competences regularly (Estonia. Ministry of Education and Research, 2014.)

The Estonian Lifelong Learning Strategy lists the following activities on resources related to developing students' digital competences:

- The centres of didactics at universities will circulate examples of good practice, will support digital innovation in schools, as well as the innovation networks of teachers, university teaching staff and schools;
- Teachers in schools and universities will receive support with educational technology to maximise the opportunities that the digital age provides in their work.
- A system of interoperable software solutions will be created to support the development of educational content, its assessment, storage, delivery and utilisation in learning. Through this system, the digital learning resources will be made accessible to learners and teachers in a systematic and user-friendly manner. System administration and user support will be provided;
- Support will be given to pilot projects that aim to facilitate a transfer to the use of e-learning materials in educational institutions and the best practices will be shared
- Standards and minimum requirements will be set for the digital infrastructure of the schools; consistent monitoring of the schools' digital infrastructure will be guaranteed;

- The local area networks of all schools will be modernised and the opportunities for using modern presentation technologies will be created in the classrooms;
- The school owner will guarantee that each teacher will have use of personal digital devices;
- An education information system framework will be created and applied. All existing systems will be modified and integrated based on this framework (for example, EHIS, e-diaries, e-learning platforms, digital educational material stores, examination information systems, digital archives);
- The learners' personal digital learning environment solutions will be developed for different types of digital devices (smart phones, laptops and tablets).

(Estonia. Ministry of Education and Research, 2014).

Estonian schools are digitally well equipped with average levels of computer access and higher than EU average levels of access to broadband internet. The level of access to interactive whiteboards is above EU mean at all grades. This holds true for data projectors as well. The number of teachers who use ICT in at least 25% of lessons is between 57% and 84% which is well above the EU mean score (European Commission, 2013a). By the end of school, Estonian students' IT-skills are well developed. In 2011, 91% of individuals aged 16 to 24 managed word processing (89% for EU-27), 75% used formulae in spreadsheets (67% for EU-27), 48% created electronic presentations (59% for EU-27), and 21% wrote computer programs (20% for EU-27) (Eurostat, 2011).

**Strengths and challenges:** Estonian schools are well provided with digital technology and most teachers report using it in more than 25% of their lessons. Nevertheless, although 93% of lower secondary teachers in Estonia report having undertaken professional development in the 12 months prior to the TALIS 2013 survey, the highest proportions of teachers refer to a high need for professional development in information and communications technology (ICT) skills for teaching and strategies for using new technologies in the workplace (TALIS, 2013). There are studies that make it possible to base tertiary and in-job teacher training in the field on scientific arguments (Laanpere, 2013).

Estonian students are, so to say, e-students. According to the PISA 2012 questionnaire, using technical equipment and computers starts early, Internet use and participation in social networks is high. Estonian students are the best in using e-school and school-web, and the second best in reading news mediated via the Internet (HTM, Innove, 2013, p. 5).

Using smart-technology equipment at a very high level brings up a serious risk of computer dependency. In 2012, over 99% of the Estonians aged 16-24 used the Internet outside home and office via mobile phones, half of them doing it almost permanently and only 19% less often than once a week. All of the group had access to the Internet also via laptops or tablets (Estonian Statistics, 2015, IT62). At the same time, a large national survey showed that 8<sup>th</sup> graders (15 years old) had started using computers at the age of 6, while children younger than that had started it already at the age of 4.5 years. 40 percent of parents reported that their children are overusing computers, sleep less and are physically less active than normal (The National Institute for Health Development, 2014).



### 5.1.4 The role of public libraries in reading promotion

Public libraries are an important agent in reading promotion.

#### **Cooperation between secondary schools, families, libraries and other agents in literacy promotion for adolescents**

It is a rather strong tradition in Estonia that libraries collaborate with all kind of projects, families, schools etc. for promoting and fostering literacy and reading. Libraries and librarians themselves are rather often initiators of projects/campaigns and cooperation with different interesting groups.

**Strengths and challenges:** There is a very good network of libraries in Estonia. In 2012 there were 563 public, 51 scientific and 391 school libraries in Estonia (Statistical Yearbook of Estonia, 2012). As we have 533 compulsory schools, it means that more than 2/3 of schools have a library<sup>8</sup>. School libraries are not only places for lending or reading books, but mostly are learning centres that help to fulfil learning goals. The same can be said about public libraries. Librarians are eager to help teachers to offer different ideas for better literacy teaching.

One of the challenges is to manage the reduction of budgets. On the one hand, due to the long tradition, the Estonian school libraries are well equipped (each having nearly 8000 units). On the other hand, school and public libraries very much depend on the county government: rich and big counties can offer more money for their libraries whereas small counties are not able to do that.

### 5.1.5 Improving literate environments for children and adolescents: Programmes, initiatives and examples

#### **Family literacy programs**

The Estonian Reading Society projects support schools, teachers, children, and families; e.g., among others, results of the Family History project research with a lot of memories stored, improved children's reading and writing skills and gathered first experiences of research compilation (Estonian Reading Association, 2015<sup>9</sup>).

#### **Programmes for introducing parents and children to libraries and bookshops**

Officially, propagating literature to families with children is the responsibility of the Estonian Children's Literature Centre working both physically and via its website ([www.elk.ee](http://www.elk.ee)). Beside permanent activities and publishing a journal, the centre has organised popular weekly family occasions and a yearly competition of reading aloud (for 4<sup>th</sup> graders) for 23 years (also movements as for example Reading Dogs, Club of Science Fiction, Creative Writing). It also gives yearly prizes, such as Raisin of the Year (campaign for introducing and awarding the best original literary pieces) and The Tower of Babel Honour Diploma (campaign for the best translation).

#### **Initiatives to foster reading engagement among children and adolescents**

Although there is no central coordinating body for the promotion of reading literacy in Estonia, these functions may be carried out by several organisations, reading associations or library networks. For example, a programme called "Reading is fun" aims to motivate children to read in their leisure time.

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<sup>8</sup> See: [https://www.hm.ee/sites/default/files/2015-2016-oppeaasta\\_arvudes.pdf](https://www.hm.ee/sites/default/files/2015-2016-oppeaasta_arvudes.pdf).

<sup>9</sup> See: [www.lugemisyhing.ee](http://www.lugemisyhing.ee).

Participants are 11 to 16 year old middle school students. Within the project students read interesting books throughout the school year, analyse them in chat rooms via the Internet and carry out various competitive tasks on the basis of their reading using computers (L.O.M. Edu, 2005<sup>10</sup>).

The Estonian Children's Literature Centre provides an archive library, an information centre on children's literature, a development and training centre, an art gallery and a children's library. Several books are awarded; there is a roundtable about children's literature as well as creative contests, exhibitions, and a reading-aloud-day (Reading Worldwide, 2012a).

The Estonian Reading Association (EstRA) could also be considered an essential interface for promoting and fostering literacy. It spreads information about language competences among children, adolescents and adults in Estonia to teachers and scientists, with the goal of developing literacy skills and benefiting research on the topic (Reading Worldwide, 2012b).

A programme called "Reading is a Pleasure – Learn about Yourself through Literature"<sup>11</sup> aims to encourage students to read attractive fiction. In addition, students shall learn to express themselves through drama and animation and give them the chance to see their own lives in contrast to teenagers' lives in other countries. This project can teach youths about friendship, love, relationships with classmates, teachers, parents, etc. and how rights, duties and relationships are solved. These topics are also discussed with foreign students. Books are chosen, read and presented to a partner. Animated films based on the books are made by the students. Extracts from the books are acted by the students. They visit theatres, museums and meet writers. (Reading is Pleasure, 2013.)

A programme called "Reading Nest" trains teachers in storytelling and in the ability to create an inspiring reading environment in nursery schools and comprehensive schools to promote pupils' interest in reading (Estonian Reading Association, 2014). Over 1500 teachers have since been trained. The project's objective is to design an environment in schools where children can read in an enjoyable and safe atmosphere; to engage students in activities, to promote creativity of both children and teachers, and to foster collaboration between home and community (see the *Lugemispesa* project by the Estonian Reading Association<sup>12</sup>).

### **Fostering digital literacy in and outside schools**

Digital and media education seem to be a focal point in the Estonian national curricula (Estonia. Government of the Republic, 2011a), and the Estonian Lifelong Learning strategy (Ministry of Education and Research, 2014) further promotes this.

Also projects, such as Reading is Pleasure: Learn about yourself through literature (Reading is Pleasure, 2013), enhances adolescents' motivation in reading by providing fun activities where use of multimedia and technology are required. A campaign aimed at students with a lack of interest in reading and a lack of interest in improving their general literacy skills. It is a web-based environment for informal discussion about books and reading generally. Students choose books to read themselves and they share ideas, feelings etc. voluntarily and freely. Only for joining with the environment do they need the teacher or librarian who supports them<sup>13</sup>.

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<sup>10</sup> See: <http://www.lom.edu.ee/>.

<sup>11</sup> See: <http://www.lugemisyhing.ee/index.php?page=420>.

<sup>12</sup> See: <http://www.lugemisyhing.ee/index.php?page=165>.

<sup>13</sup> See: [www.lom.edu.ee](http://www.lom.edu.ee).

## 5.2 Improving the quality of teaching

To improve the quality of teaching, important aspects need to be considered:

- The quality of preschool
- coherent literacy curricula
- high-quality reading instruction,
- early identification of and support for struggling literacy learners
- highly qualified teachers (cf. Frame of Reference for ELINET Country Reports).

Especially crucial is the quality of teaching and of teachers, as the McKinsey report “How the world best performing school systems come out on top” (McKinsey et al. 2007) states: “The quality of an education system cannot exceed the quality of its teachers.” (McKinsey et al. 2007).

### 5.2.1 Quality of preschool

While early childhood education has long been neglected as a public issue, nowadays early childhood education and care (ECEC) has been recognised as important for “better child well-being and learning outcomes as a foundation for lifelong learning; more equitable child outcomes and reduction of poverty; increased intergenerational social mobility; more female labour market participation; increased fertility rates; and better social and economic development for the society at large” (OECD, 2012, p. 9). In all European countries pre-primary education is an important part of political reflection and action.

The EU High Level Group of Experts on Literacy stated:

“Increasing investment in high-quality ECEC is one of the best investments Member States can make in Europe’s future human capital. ‘High quality’ means highly-qualified staff and a curriculum focused on language development through play with an emphasis on language, psychomotor and social development, and emerging literacy skills, building on children’s natural developmental stages.” (High Level Group Report, 2012a, p. 59).

While there is no international or Europe-wide agreed concept of ECEC quality, there is agreement that quality is a complex concept and has different dimensions which are interrelated. In this report we focus on *structural quality* which refers to characteristics of the whole system, e.g. the financing of pre-primary education, the relation of staff to children, regulations for the qualifications and training of the staff, and the design of the curriculum. There are some data concerning structural quality, but there is a lack of research and data about process quality, practices in ECEC institutions, the relation between children and teachers, and what children actually experience in their institutions and programmes.

### Annual expenditure on pre-primary education

According to Eurostat (2014, Figure D3), the total public expenditure per child in pre-primary education as a percentage of GDP in Estonia is 0.5%. The range is from 0.04% in Turkey and 0.1% in Ireland to 1.01% in Denmark (for an overview of European countries see table D1 in Appendix B).

### Ratio of children to teachers in pre-primary school

According to Education at a Glance 2014 (OECD, 2014, p. 451) the student/teacher ratio in pre-primary schools for children at the age of four in Estonia is 6.8. According to Eurostat (2014, table 4:1) the student/teacher ratio in primary schools of Estonia is 15.4. For the other European countries the ratio

in primary schools ranges from 9.9 in Latvia and Lithuania to 20.6 in the Netherlands (ibid.; for another overview of European countries see OECD, 2014, table D2 in Appendix B).

### **Percentage of males among preschool teachers**

No data are available for Estonia. The range is from 0.2% in Bulgaria and Hungary to 17.7% in France (for an overview of European countries see table D3 in Appendix B).

### **Preschool teachers' qualifications**

The minimum required level to become a qualified teacher is Bachelor level (ISCED 5). Length of study is 3 years (European Commission/ EACEA/ Eurydice/ Eurostat, 2014, p. 101). Continuing Professional Development is obligatory (European Commission/ EACEA/ Eurydice/ Eurostat, 2014, pp. 104–105). In Estonia, a person working with children in a pre-primary facility has to have either academic or vocational degree in education. He/she has to perform a minimum of 160 hours in-job training within every five years (Estonia. Government of the Republic, 2002, § 4).

**Strengths and challenges:** As to strengths, Estonian pre-school education is traditional and has a good system/structure of kindergartens. The first kindergarten was founded in Tallinn in 1840. Special kindergarten teachers' education has been provided since 1920.

Currently, local authorities must guarantee a place in a child-facility for each child and financial support for every kindergarten. Also high demands for kindergarten teachers, teaching methods and the environment are strengths of Estonian pre-school education.

A big challenge is the low salaries of pre-school teachers and other staff and rather different economical and educational levels of kindergartens. The reason for this is that kindergartens belong to the county and the county decides what kind and how much support they can give: depending on the wealth of a county. It is one way for countries to get more residents, but increases the inequality of conditions of kindergartens. The government should finally support less rich counties or speed up changes of regional structure.

### **Preschool language and literacy curriculum**

The design of the preschool curriculum is an important aspect of quality. Therefore it is included in this section and not in the next section "Literacy curricula in schools". It also takes into consideration that young children have learning needs than are sometimes different to those of school children. Pre-school programmes should focus on developing children's emergent literacy skills through playful experience rather than systematic training in phonics or teaching the alphabet. There is no evidence that systematic instruction of reading in preschool has any benefit for future learning (Suggate, 2012).

Fostering the development of emergent literacy skills through playful activities is an important function of pre-school institutions, providing a basis for formal literacy instruction in primary school. We consider the following to be key components: oral language development, including vocabulary learning and grammar, familiarisation with the language of books (e.g. through hearing stories read and told), being engaged and motivated in literacy-related activities, experiencing a literacy-rich environment, developing concepts of print, and language awareness.

## **Improving early language and literacy screening and training**

In Estonia, integrated language and speech development constitutes one of seven subject fields (hereinafter "subject field") described in the national curriculum for preschool facilities. According to the guidelines of this subject field, 6-7-year-old children should be actively involved in planning activities which promote their interest in reading, writing and literature, help them develop their communication skills and their basic reading and writing skills as well. Besides, several linguistic skills are mentioned as a result of other subject fields, such as cognitive and learning skills development, social skills, etc. Estonian as a second language constitutes special subject fields preparing children get used to the sound of Estonian, to know some Estonian cultural habits, facts, or proper names, and to understand few words and every-day phrases (Estonia. Government of the Republic, 2008, Chapt. 5, §§ 18 and 19).

According to the same curriculum, preschool institutions provide children with a speech environment rich in language stimuli. Children are immersed in a literacy-rich environment which enhances their exposure to a variety of literature genres and helps them to understand and appreciate literature. Also, children's exposure to books promotes their interest in reading and contributes to the development of reading and writing readiness (Estonia. Government of the Republic, 2008, p. 18). According to the European Agency for Special Needs and Inclusive Education (2009), in Estonia, children with special needs get support mainly in mainstream Kindergartens and only in some cases do they attend special Kindergarten.

### **5.2.2 Literacy curricula in schools**

Curricula provide a normative framework for teachers and a guideline for their teaching aims, methods, materials and activities. However, one should keep in mind that there is a difference between the intended curriculum, as outlined in official documents, and the implemented curriculum – what actually happens in the schools.

#### **Primary schools curricula**

Among the European countries participating in PIRLS 2011, only six countries had a national curriculum specifically for reading, namely France, Hungary, the Netherlands, Northern Ireland, the Russian Federation, and Sweden. In all other countries reading usually is taught as part of the national language curriculum that also includes writing and other communication skills (Mullis et al. 2012, Vol.1, exhibit 5, p. 30, 31).

According to the national curriculum for basic schools, Estonia has no special curriculum on reading. There is one integrated syllabus for Estonian Language and Literature up to grade 4. Also, teaching of foreign languages starts in grade 1 or 2 (as chosen by a school). Language learning objectives are oriented to communication, the main components being linguistic, sociocultural and pragmatic competence. Subskills, incl. mediation skills, vocabulary, and grammar are developed by working with academic, every-day and fiction texts (Estonia. Government of the Republic, 2011a).

By the end of the primary stage of the basic school (i.e. at the end of grade 3), a pupil "is capable of finding and understanding information in texts (including data, terms, characters, activities, events and their time and place) and presenting it orally and in written form"; he/she "understands and uses learned everyday expressions and simple phrases in a foreign language being studied" (Estonia. Government of the Republic, 2011a, § 7).

## **Reading for pleasure**

Fostering reading engagement is not especially named as a specific aim in the national curriculum (see above). It is mostly the issue of teacher training. The need of fostering reading engagement among adolescents is a cross-curricular theme in Didactics of Mother Tongue in teacher education.

## **Contents of literacy curricula**

The Eurydice report "Teaching Reading in Europe" offers a broad range of information about the content of reading literacy curricula and official guidelines (Eurydice, 2011). In order not to duplicate this work only two aspects were addressed in the ELINET country reports whose importance might not yet be acknowledged and therefore might be missing in the literacy curricula and official guidelines: explicit instruction of grapheme-phoneme correspondences (phonics), and reading strategies.

### *Explicit instruction of grapheme-phoneme correspondences*

Linking sounds to letters, naming and sounding the letters of the alphabet; using knowledge of letters, sounds and words while reading, and using knowledge of letters, sounds and words when writing are taught during primary education in Estonia.

Also progression in recognising words (short and long); enriching vocabulary; writing one's own name from memory, and using word recognition as a reading strategy are coming into focus during the primary school years in Estonia.

Shortly, the Estonian national curriculum includes four out of six indicators for word identification and three out of five indicators for knowledge of phonics during primary education (Eurydice, 2011, Figure 1.2, p. 56).

### *Teaching of reading strategies in primary schools*

While literacy instruction in the early years is more focused on code-based skills, in later stages it is important to develop and foster a wide range of comprehension strategies with all children. Explicit teaching of comprehension strategies is effective for improving reading comprehension among readers with different levels of ability. These strategies include (Eurydice 2011, p. 55):

- Drawing inferences or interpretations while reading text and graphic data
- Summarising text and focusing selectively on the most important information
- Making connections between different parts of a text
- Using background knowledge
- Checking/monitoring own comprehension
- Constructing visual representations
- Pupils reflecting on their own reading process.

According to the analysis of steering documents by Eurydice (2011) the following reading strategies are mentioned in the Estonian literacy curricula: Drawing inferences, Monitoring own comprehension. As to Summarising text, Making connections between parts of a text, Using background knowledge, Constructing visual representations and Pupils reflect on own reading process, they are not straightforward mentioned. On the other hand, having a strong tradition in acknowledging all of them, those not mentioned in the official documents stages are considered a normal part of learning

materials some of which being highly valued by IARTEM - International Association for Research on Textbooks and Educational Media<sup>14</sup>.

### **Literacy curricula in secondary schools**

National curricula for basic and upper secondary schools in Estonia were launched in 2011. The curricula are based on the Basic Schools and Upper Secondary Schools Act.

In the curriculum for basic schools, a great emphasis is given to values deriving from ethical principles in the Estonian constitution. Some of these values include: liberty, democracy, respect for mother tongue and culture, patriotism, cultural diversity, tolerance, responsibility etc. A strong basic education deriving from Estonian cultural traditions and common European values is seen as central in the curriculum: "Estonian schools have the responsibility to safeguard and develop the Estonian nation, language and culture. Special attention in basic school learning and educational process is paid to studying the Estonian language". Among the competencies targeted by basic school education in general, communication competence is mentioned as the "ability to clearly and relevantly express oneself, taking into account situations and partners in communication; to present and justify their positions; to read and understand information and literature; to write different types of texts, using appropriate linguistic devices and a suitable style; to prioritize correct use of language and rich expressive language" (Estonia. Government of the Republic, 2011a).

The curriculum is also based on key-competences. Communication competence is mentioned in the secondary school curriculum, meaning: the ability to express oneself, read and understand information and literature, write different types of texts and to use various styles in order to enable students to have a rich expressive language. Estonian language is one of the core subjects in Estonia, and its importance is mentioned several times in the curriculum.

By the upper secondary curriculum, the general upper secondary education is a continuation of basic education and based on the same values as mentioned above (Estonia. Government of the Republic, 2011b).

There are two kinds of vocational education institutions in Estonia: 1) based on basic education and 2) based on upper secondary education. Every vocational school can have their own curriculum, but there are also basic skills defined at national level that must be acquired during vocational schooling by each person. It includes also general literacy and communication skills.

Literacy is not mentioned as an idiom or subject in the national curricula for basic and upper secondary schools. In both curricula, however, a strong emphasis is put on the Estonian language and literature as well as on two compulsory foreign languages. Literacy is part of those and other school subjects. Many aspects of the communication competence as a key competence of curricula for basic and secondary schools are also connected to literacy (Estonia. Government of the Republic, 2011a, 2011b). It means that communication and literacy skills should not be taught/handled only in the lessons of mother tongue or other languages, but also connected with all other subjects. It is called a general or key-competence, and a recurring theme in the national curriculum in Estonia. Not only language teachers are responsible for developing students' communication and language skills, but also other subjects' teachers (Estonia. Government of the Republic, 2011a, 2011b). The national curriculum is compulsory for all teachers in Estonia.

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<sup>14</sup> See IARTEM. Belma; <http://www.belma-award.eu/>.

**Strengths and challenges:** In Estonia, secondary education means stage 3 (grades 7-9) in a basic school, plus upper secondary education with its mandatory courses taught in vocational schools and voluntary courses chosen for a gymnasium (grades 10-12). Estonian national curricula emphasise literacy teaching in all stages of basic school according to students' age and developmental level. Subskills must be taught in an integrated way, based on topic-field and type or situation of communication. Listening, talking, reading and writing must be taught/treated within communication situations or general themes, in meaningful/real-life contexts, not as separate skills. Reading engagement or reading for pleasure is more stressed in the new curriculum. The mother tongue syllabus includes also a wide range of pedagogical and methodological advice for teachers, but still leaves enough space and freedom for teachers to make their own decisions. The current mother tongue syllabus gives more freedom to teachers to choose literature or fiction books (Estonia. Government of the Republic, 2011a, 2011b).

However, a modern curriculum itself does not guarantee that teachers really follow instructions. This is an important issue and challenge for teacher training institutions focusing on changes in Europe: classes are multilingual, new literacy includes reading images, reading becomes more modular than linear, etc.

Although literacy is not mentioned as an objective of education, multi-literacy is targeted through programmes for languages and other school-subjects, which means that communication competence and ability to find relevant information, to question and discuss it is guaranteed with modern learning materials. Some of basic school materials have got the Best European Learning Material Silver Award 2014, Best European Schoolbook Silver Award 2012, and Best European Schoolbook Bronze Award 2006 (IARTEM, Belma).

In the other hand, not the schoolbooks but teachers are the key to constructional dialogic learning-teaching approach. Since teaching literacy skills is seen as a cross-curricular competence integrated in subject-teaching (see e.g. Graz Group, 2015), teacher training programmes must be changed to integrate literacy knowledge and genre awareness – that is not the case in the Estonian state universities training teachers. So far, it has been the issue of class teacher and language teacher initial education, but it should be also integrated in all teacher training programmes. Teachers, especially subject teachers, need in-service courses and programmes about effective literacy instruction and integrating literacy skills into the subject-classes they teach.

### **5.2.3 Reading Instruction**

While most literacy researchers have clear concepts about effective literacy instruction, we do not know much about what is actually going on in classrooms in Estonia or other European countries. In order to describe the practice of reading instruction we would need extensive observational studies. However, there are only rare observational studies (Philipp 2014). There is a noteworthy shortage of data on actual reading instruction in school. Only PIRLS offer some data for primary schools, albeit based on self-reports by teachers (PIRLS) which might not be valid and may be biased by social desirability. Since Estonia has not participated in PIRLS study, there is no data for his topic.

#### **Activities of teachers to develop student's comprehension skills and to engage them**

It is well documented in research studies that explicit teaching of comprehension strategies may improve reading comprehension among readers with different levels of ability. While there are no data available for secondary schools, some PISA data also suggest that there is a need for explicit



instruction of reading strategies: As reported above, in Estonia, there is a gap of 82 score points – equivalent to two years of schooling– between the students who know which strategies are the most efficient to understand and remember a text, and those who have a limited knowledge of these metacognitive activities. This remarkable difference reflects the close relation between reading proficiency and awareness of efficient reading.

**Strengths and challenges:** The syllabus of Estonian Language and Literature in Estonia strongly states that teachers should use a wide range of activities and instruction to develop students' comprehensive and metacognition skills. Also the importance of use of strategies and activities which are similar to those we use in real life for reading (and writing) different texts in different purposes is named in every possible place. However, we still don't have enough research data about what is really going on in everyday classroom. One publication has shown that lower basic school students understand terms of science quite well while reading content area texts. It allows us to say that our teachers use at least some range of reading strategies and instruction (Erma, 2013).

There is an urgent need to start widespread research about the real situation at school.

### **Digital literacy part of the curriculum for primary and secondary schools**

The national curricula for basic and upper secondary schools state cross-curricular topics, including the following (Estonia. Government of the Republic, 2011a, 2011b):

- 1) information environment – the aim is for the student to develop into an information-conscious person who is aware of the surrounding information environment, is able to analyse it critically and acts according to his or her aims and society's communications ethics;
- 2) technology and innovation – the aim is for the student to develop into a person who is well-disposed toward innovation and who knows how to use contemporary technologies in a goal-oriented manner, who copes with the rapidly changing technological living, learning and work environment.

Technology is also taught as a subject on a basic school level (Estonia. Government of the Republic, 2011a), and its importance recognised at all school levels in the Estonian Lifelong Learning Strategy (Ministry of Education and Research, 2014).

#### **5.2.4 Early identification of and support for struggling literacy learners**

Effective assessment tools upon entry to primary school will help teachers identify literacy skills from the very beginning of formal education. Regular formative assessment throughout primary school will ensure that literacy problems do not continue to go unrecognized, and that students receive the support they need through education that matches their learning needs. This should prevent children leaving school with unrecognized literacy problems (High Level Group of Experts on Literacy 2012, p. 67).

#### **Standards as basis of assessment of reading difficulties**

Standards of reading achievement allowing teachers, parents and school leaders to understand the rate of progress of learners and to identify individual strengths and needs should be integrated in the curriculum and should be the basis of assessments. The High Level Group pointed out that there is a need to establish minimal standards of literacy achievement (benchmarks) for each grade to allow for identification of struggling readers/writers (High Level Group of Experts on Literacy, 2012, p. 43).

All EU countries have defined learning objectives in reading to be reached at the end of primary and secondary education cycles. However, only a few Member States have detailed standards (benchmarks) at each grade (school year) which form the basis of assessments allowing for early identification of reading difficulties and subsequent allocation of attention and resources. These standard-based assessments allow teachers and school leaders to judge children's progress and to target additional reading support.

Assessment standards and methods are not prescribed by the language/reading curriculum in Estonia. Only general principles of assessment are prescribed in the curricula (Estonia. Government of the Republic, 2011a, 2011b).

### **Screenings for reading competence to identify struggling readers**

Early identification of learning difficulties and applying suitable interventions is usually a duty of the course supervisor or the class teacher (Ministry of Education and Research, 2012). Pedagogical-psychological assessment, observation and gathering information about the pupils and their environment as well as speech therapy examinations are conducted, too. Schools usually have appointed a person who coordinates cooperation of support specialists and teachers for the purpose of best supporting the learning of pupil with learning difficulties. (European Agency for Special Needs and Inclusive Education, 2013a).

Pupils need to pass exams on several occasions during their schooling. National exams in Estonian as L1 or L2 are obligatory in grades 9 and 12, and optional in math or other subjects in grades 3, 4, 8, 10 and 11. In addition, schools can hold their own exams. Pupils studying according to an individual curriculum will take an achievement test based on their curriculum. The assessment criteria for the evaluation of the exams taken by a L2-speaking pupil are less strict than those for native speakers (Tere-Tere, 2012b).

**Strengths and challenges:** To provide necessary consultations for parents, schools and kindergartens, the government of Estonia has established regional learning guidance centres. On the other hand, current migration flow may change the controlled situation in Europe, including Estonia, with its relatively weak infrastructures for newcomers who may need active support in literacy, language learning and learning in general.

### **Supporting struggling literacy learners**

In Estonia, there are no public data on the number of struggling readers receiving remedial instruction. The main data come from PISA studies. In 2012, the study showed that in 9.2% of students at the age of 15 perform functional reading at level 1a and under 0.5% at level 1b would need special assistance.

It is crucial that teachers provide support measures to help struggling readers. European Countries differ widely in their approaches, from in-class support with additional support staff (reading specialists, teaching assistants or other adults) working in the classroom together with a teacher, to out-of-class support where speech therapists or (educational) psychologists offer guidance and support for students with reading difficulties. Teaching in general should be differentiated. The national curriculum states that differentiated learning assignments are to be used by all teachers. The content and level of difficulty should be chosen in such a way that pupils study at a suitable level of exertion, considering the individuality of the students (Estonia. Government of the Republic, 2011a).

When it comes to special educational needs of all kinds, schools are obliged to implement the following kinds of support measures for children: supported education in groups or individually; implementing special education methodology and assistance; implementing a curriculum that corresponds to the abilities of the students and an adjusted curriculum; ensuring availability of technical facilities for disabled students; adaptation of the physical learning environment according to the type of disability if required; drawing up and implementing an individual curriculum if required; ensuring availability of services provided for in the rehabilitation plan, monitoring students' achievements and assessment which supports and directs the development of the students (European Agency for Special Needs and Inclusive Education, 2013b). Estonia has highly developed technological tools for language instruction, which support pupils with language deficits and partly help to meet their needs in education (Estonian Language Foundation, 2011). In addition, there are several projects promoting reading and literacy (Estonian Reading Association, 2014). Public education is free of charge in Estonia.

However, schools' conditions can considerably vary between local governments, and also the possibilities to meet specific needs can be different. In small localities, resources are much more limited and local governments have problems with providing the necessary translation services, assistant teachers, specific teaching materials, training for teachers, etc. (Loogma et al., 2012). In addition, an integration plan can be created. The integration plan is designed by the representative of the school management, subject teachers, the child and his parents. The integration plan is usually made for six months. It includes the detailed division of classes, the content of various subjects and other activities related to school life (including extracurricular activities) (Tere-Tere, 2012a). According to the Basic Schools and Upper Secondary Schools Act, any language can be used as the language of instruction in a basic school (Estonian Language Foundation, 2011). For graduates of non-Estonian language basic schools, support and opportunities for learning Estonian will be provided at the independent language learner level, which is necessary for continuing studies in upper-secondary schools and/or vocational education institutions (Ministry of Education and Research, 2014).

### **Support for struggling readers – a legal right?**

The Education Act (1992, last amended 2009) states that one of the objectives of education is to create opportunities for everyone to engage in continuous learning. And also: the state and local governments shall ensure that everyone in Estonia has the opportunity to fulfil the obligation to attend school and the opportunity to engage in continuing education. In addition, it is stated that the Ministry of Education and Research shall direct and organise the preparation of study plans, study modules for public educational institutions (except universities) and study materials for students with special needs and establish the requirements for educational literature in order to ensure conformity to the national curriculum. On special needs, it is stated that the local governments shall provide persons with learning disabilities and persons who need special support with the opportunity to study at a school of their residence. If suitable conditions are not found, the state and local governments shall provide such persons with the opportunity to study at an educational institution established for that purpose (Estonian Republic, 1992, last amended 2015, Chapt. 1: §2, Chapt. 2: §6; Chapt. 3 §10). Furthermore, the National Curriculum (2011) states that in planning and carrying out learning, the special character of the pupil's perceptual and cognitive processes, abilities, linguistic, cultural and family background, age, sex, health status, interests and experiences shall be taken into account (Estonia. Government of the Republic, 2011a).

**Strengths and challenges:** In Estonia, training teachers for children with special needs started in 1968. For now, this MA-programme is offered in two state universities. As a result of that, Estonian schools have a good support system for struggling readers-writers. Almost each school has a special education teacher, psychologist and social worker who all support the development of the child.

Moreover, a major change occurred in the educational system between PISA studies of 2009 and 2012 (see Puksand, 2013). In the national curriculum legislated in 2011, communicative competence is implemented as a cross-curricular key competence. Also, literary reading gets more attention, as literature is turned into a separate school subject for grades 5–12 (Estonia. Government of the Republic, 2011a, 2011b).

## **5.2.5 Initial Teacher Education (ITE) and Continuous Professional Development (CPD) of Teachers**

### **Entry requirements for Initial Teacher Education**

In Estonia – besides the general entrance requirements for entry to tertiary education – there are specific selection criteria for admission to initial teacher education. According to Eurydice (2013a, Fig. A5, p. 32), a third of all European countries (including Estonia, Finland, Italy, Lithuania and Scotland) have specific selection methods such as satisfactory performance in a specific aptitude test or interviews in which candidates are asked about their motives for becoming teachers. Entry requirements for initial teacher education (ITE) depend on the organising institution, yet a certificate of final examination of upper secondary education, performance at upper secondary level and/or admissions interview for teacher education usually play a role in the selection process (Eurydice, 2013a). The applicants' language skills are not specifically tested at the entrance exams to teacher education in Estonia (Eurydice, 2011).

More specifically, the entry requirements in Estonia are the following (Eurydice, 2013a, Fig. A5, p. 32):

- Certificate of final examination of upper secondary education (decided at the level of the education authority)
- Performance at upper secondary level (decided at institutional level)
- An interview specifically for admission to teacher education (decided at institutional level).

### **Level of qualification and length of the required training for primary teachers**

Estonia requires primary teachers to have a master's degree which takes five years' study, and after study, there is an induction period which takes a year. Typically, primary teachers' education routes are through a four-year university bachelor's degree programme in primary education. In ten European countries – Croatia, the Czech Republic, Estonia, Finland, Germany, France, Iceland, Portugal, Slovakia and Slovenia – initial education for primary teachers is at master's level and usually takes five years. In recent years, an increase in the minimum length of initial teacher education can be noted for many countries (Eurydice, 2012, Fig. E2, p. 112).

### **Length of required training of secondary teachers**

A Master's level (5 years) degree is required to become a qualified upper or lower secondary teacher in Estonia (Eurydice, 2013a).

**Strengths and challenges:** The strength of the Estonian teacher training system lies in the fact that every teacher has to get a master degree in educational sciences or in a subject field he/she will teach. Subject-teacher education includes an academic year (60 ECTS) of studies in developmental psychology, teaching, and education. After getting an MA-degree, every teacher has to complete one additional year of supervised practice (Estonian Teacher Training Requirements Framework, 2000, last amended 2015).

On the other hand, there is a major challenge to dignify teacher-status in general. After political changes forced by low birth rates, a generally critical economic situation (Estonian Statistics, 2015), relatively long study-periods of 5 to 6 years, a growing amount of administrative tasks, very low salaries (Euridyce, 2014, cf. Minifacts Estonia, 2015, p. 26), and other factors of social uncertainty have made the profession quite unpopular. E.g., in Estonia, Malaysia, and England, relatively small class size (less than 20 students; 16 in Estonia) is negatively correlated to the job satisfaction (OECD, 2014, p. 444). As a result, the teacher training entrance rates are about 1-2 candidates per student-place or even lower (SAIS, 2015).

### **The role of literacy expertise in Initial Teacher Training**

Important teacher competences are a) the assessment of the strengths and weaknesses of each individual student they teach, b) selection of appropriate instructional methods and c) instruction in an effective and efficient manner. These topics should therefore be addressed in teacher training.

In Estonia, there are no central guidelines regarding the content of teacher education, but ITE institutions offer courses or modules on methods of teaching reading. In the two higher education institutions offering ITE, both class teachers (grades 1-6) and mother tongue teachers (grades 1-9) have to take courses in mother tongue didactics. These courses encompass methodology and assessment in the field of teaching reading. In addition, for class teachers, a course of strategies to tackle reading difficulties are either compulsory or optional, depending on the providers (Eurydice, 2011, p. 98).

Curricula of class teachers and mother tongue teachers include also literacy teaching strategies, material based on relevant literacy research and appropriate literacy assessment techniques. There is Didactics of Mother Tongue (I and II) in the class teacher curriculum. It gives 10 ECTS (altogether) and is held in the spring semester of the second year of study (D of MT I) and in the autumn semester of the third year of study (D of MT II).

The aims/objectives of the course are:

- To form suppositions of understanding modern approaches to teaching mother tongue and skills to put them into practice.
- To give skills of planning and organising learning of listening, speaking, reading and writing.
- The clarification of what, why, when and how teaching should take place.

The course covers the methods of teaching mother tongue in grades 1-6, gives theoretical basis, practical guidelines and concrete suggestions of teaching reading and writing. The objective is also the students' activeness in connecting theory to practice and making choices/conclusions.

Student class teachers can choose mother tongue as a subject, they will be able and allowed to teach until the end of compulsory school (up to grade nine) (48 ECTS). They then have an extra module about theory of Estonian Language (together with future Estonian Language teachers) and also an

extra practice period at school. Student class teachers have two practices at school (both 7 study weeks), which also include teaching of Mother Tongue in grades 1–6 (Class Teachers of Estonia, 2014).

Future Teachers of Estonian Language and Literature (preparing to teach Mother Tongue and Literature as two separate school subjects to grades 5-12) usually have BA-level education in Estonian Language and Literature, after which they take a special 2-year (120 ECTS) MA programme which includes studies in developmental psychology and educational sciences (30 ECTS), didactics of language (L1 and multilingual classes) and literature (21 ECTS), practice at school (15 ECTS), studies in language and literature (30 EAP), and master theses (16 EAP), plus some subjects by free choice (8 ECTS). The content of didactics is as follows: the basis of mother tongue didactics; didactics of literature; teaching Estonian language and literature in a multilingual classroom; methodology of text-centred teaching of L1; age-appropriate reception of literary work and learning difficulties in L1 (Estonian Language and Literature Teacher, 2015).

**Strengths and challenges:** In Estonia, language is a major public issue because of the short period of independence (1918-1940, 1991-now). On the one hand, background factors, such as most parents and caretakers reading to their young children, teaching them characters and training reading at a very early age, assisting children when they go to school, etc. decreases the role of experts. As all schools provide logopedic assistance, all children get additional professional help at the slightest indication of reading-writing problems. This, in its turn, decreases professional responsibility of class teachers: they may rely on parents and colleagues.

On the other hand, the situation changes rapidly: younger families migrate and re-migrate for jobs; in a short term of living abroad, children are confused with languages; they also spend too much time with widely available smart equipment, i.e., with short modular and spontaneous (unedited) texts; parents have no time to read and teach, etc. The more, in this situation, the economic crisis leads to cuts in state universities, which in its turn leads to integrating teacher professions and cutting special training programs. So the focus of teacher training moves from subject expertise to general teaching expertise (cf. Young, 2011).

### **Continuing Professional Development (CPD)**

Teachers have a professional obligation to develop their professional skills and be informed about new developments in education. Hence, the minimum of 160 hours of CPD every five years is considered mandatory for teachers. In-service trainings are ordered centrally, usually from universities offering teacher training, and proceeding from national education priorities. In-service training funds are also used for supporting teachers' networks, including learning from each other. State foundations organise carrying out or ordering of trainings. Centrally organised trainings are free of charge for teachers (Eurydice, 2015).

In-service training is prescribed in the state budget to the extent of three per cent of the annual wage fund of teachers. The majority of the funds are used for financing centrally ordered trainings, and approximately one third is allocated directly to schools. Local municipalities may allot additional resources for teachers' in-service training and determine the fields where they may be used. Schools make in-service training decisions on the basis of their needs and development plans. (Eurydice, 2015).

CPD in Estonia is free of charge to the teachers and leads to higher professional levels. Participation in in-service training is free of charge to teachers, and usually, schools or local authorities also compensate for transport and accommodation costs. Participating in CPD is one of the criteria

considered in attestation and upon granting a higher professional level. There are professional standards for teachers in several professional levels, which describe the opportunities for individual development of teachers. Developing an electronic self-assessment instrument has also been planned, to help teachers determine their need for training. (Eurydice, 2015).

At the initiative of the Ministry of Education and Research, new principles for organising in-service training for teachers are under development, aiming at supporting the professional development of a teacher systematically and using the resources allocated to that end more efficiently (Eurydice, 2015).

### **Time frame and quality standards of CPD**

Furthermore, a support system for supporting the continuous professional development of teachers is being created in universities. It aims to give working teachers methodological counselling and to enhance linking of theory and practice in teacher training. This support network or the so-called didactical environment will involve various parties of teacher training: teaching staff of universities and teachers of general education schools who are engaged in supervision of pedagogical practice. Universities that organise teacher training often provide CPD training as well (Eurydice, 2015).

National education priorities usually reflect in CPD, and schools may make in-service training decisions on the basis of their needs and development plans. Furthermore, municipalities may allocate additional resources for in-service training and determine the fields they will be used. Ministry of Education and Research is also developing a programme with new principles for organising in-service training for teachers, with the aim of supporting the professional development of a teacher more systematically and using the resources allocated to in-service training efficiently (Eurydice, 2015).

### **Time spent on professional development related to literacy**

There is no compulsory continuing professional development (in-service training) for teachers which *focuses on literacy development* in Estonia. Observation visits to other schools is very common in Estonia, where approximately 60 % of the teachers of reading, writing and literature conducted at least one observation visit to another school during the previous 18 months (Eurydice, 2011, p. 96).

It is possible to find sometimes in-service training courses about content area literacy for subject teachers (for example one of the themes: learning contents of mother tongue in the lessons of different subjects). It depends on the market. Some examples from Tartu University in-service training centre include the integrated subject and mother tongue teaching; concentric and integrated literature teaching in gymnasium.

**Strengths and challenges:** The major challenge in the Estonian teacher training seems to lie in fact that in the last 15 years, class teachers (primary teachers of grades 1-6) study contemporary Estonian systematically only for two semesters (8 ETC) while it was taught to primary teacher candidates during 8 semesters before that. On the other hand, in Tallinn, class teachers have a possibility to take 48 ETC minor program of Estonian and literature. Subject teachers, in their turn, take a short compulsory course of written production skills (Tartu) or a verbal communication course by their free choice (Tallinn). Neither are functional literacy skills (multi-literacy) or language and text awareness. This may affect literacy level (shown to be good in PISA 2012 studies and Surveylang 2013) in the nearest future.

On the other hand, the Ministry of Education and Research supports constant in-service training – the multiplicity of courses in Estonian language and literature, all provided for free, can be seen at the TU website (In-service courses, Estonian, 2015).

According to TALIS (2013) data, over 98% of Estonian teachers who teach reading, writing and literature attended at least one CPD activity during the last 18 months (Eurydice, 2011, p. 92). Courses/workshops on reading-related subject matter or methods and/or other education-related topics were undoubtedly the most common form of CPD. On average in the EU, 86 % of teachers teaching reading, writing and literature attended at least one course or workshop during the previous 18 months. Percentages were high in Estonia, Lithuania, Malta, Austria and Poland (reaching over 90 %), and in Hungary, Slovakia, Norway and Turkey were somewhat lower (53-76 %) (Eurydice, 2011, p. 94).

### **5.2.6 Digital literacy as part of initial teacher education**

In Estonia, the teacher education institutions are free to decide whether or not to include ICT and digital literacy in initial teacher education (Eurydice, 2011).

**Strengths and challenges:** The initial class teacher education curriculum includes ICT and digital literacy in two ways. There is a special course about using ICT in the classroom where student teachers learn to use ICT and digital technology itself and also to use technology for better teaching (included literacy teaching). On the other hand, using ICT and digital technology is naturally integrated into all teaching subjects (didactics) as a normal teaching condition in a modern school. The same can be said about school practice: using digital technologies and improving digital literacy is compulsory issue during students' school practice.

There is the Centre for Innovation in Education (CIE) in Tallinn and the Centre of Educational Technology (CET) in Tartu and Tallinn universities, all well equipped with the most modern technology. The multiple labs and seminar rooms of those centres are used as main course rooms for training teachers of all profiles. The centres also provide courses for in-service training and for visiting lessons of school classes.

The CIE and CET-s have gathered young and productive teams from almost all subject fields in order to integrate digital literacy in teacher training. The centres are involved in several projects both locally and internationally (Estonian ICT training centres, 2015).

### **5.2.7 Improving the quality of literacy teaching for children and adolescents: Programmes, initiatives and examples**

#### **Content area literacy programs**

There have been some projects and/or campaigns for a while, that support content area literacy among other things, like "Science Book Let you Know" (see ELINET website), "Reading Nests", "Schools where Reading Thrives" etc. Some of them are described also on the ELINET website (Awareness Raising).

Many libraries, schools, youth organisations, communities etc. organise local initiatives or movements whose goal it is to engage/motivate different age groups to read and write and to enjoy reading and writing.



The Estonian Reading Association<sup>15</sup> organises continuously special initiatives or projects, mostly for school age children and teachers, for purposes of enhancing reading interest and reading enjoyment.

### **Providing more cognitively demanding literacy instruction in school**

No special programmes or initiatives are publicly available about this issue. Schools and teachers can freely decide themselves what kind of instructions, materials, resources, etc. (also digital) they use to provide literacy instruction in school. There is a tendency in Estonia that teachers/schools tend to provide more demanding instructions, materials etc. better than less demanding instructions.

## **5.3 Increasing participation, inclusion and equity**

The High Level Group of Experts on Literacy drew attention to persistent gaps in literacy, namely the gender gap, the socio-economic gap, and the migrant gap (HLG Final report 2012, pp. 46–50). These gaps derive from the reading literacy studies that repeatedly show unequal distribution of results among groups of children and adolescents (PIRLS, PISA).

The **socio-economic gap** in literacy refers to the fact that children and adolescents from disadvantaged families have lower mean performance in reading than students from more advantaged families. However, the degree to which family background relates to the reading literacy performance varies from one country to another even in Europe. Family background measured as parents' educational level and/or occupation or measured as economic, social and cultural status is one of the most important predictors of reading literacy performance. Family background also explains some of the performance differences between schools.

The **migrant gap** refers to unequal distribution of learning outcomes between the native students and immigrant students who in most countries have lower levels of performance in reading than the native students. In many countries the migrant gap is associated with the socio-economic gap but this explains only a part of it, because the migrant gap is also associated with home language differing from the language of instruction at school which increases the risk of low performance in reading. It is noteworthy that even language minorities with high status in the society (and above-average socioeconomic background) show below average performance if the language of school is not supported at home, which signals the importance of a good command of the language used at school.

Another alarming gap in reading literacy in many countries is the **gender difference**, which is more vital for adolescents than for children. In all PISA studies, 15-year-old girls outperformed boys in reading in all the European countries, and boys are frequently overrepresented among the low performers. PISA 2009 results showed that these differences are associated with differences in student attitudes and behaviours that are related to gender, i.e. with reading engagement, and not gender as such. Therefore the gender gap is also related to growing up in a family or in a school environment that values reading and learning and considers reading as a meaningful activity.

To achieve fairer and more inclusive participation in literacy learning we need to close these gaps, which already start in early childhood, by supporting children, adolescents and adults "at risk". The groups of students "at risk" must have access to language screening and flexible language learning opportunities in school, tailored to individual needs. Furthermore early support for children and adolescents with special needs is necessary.

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<sup>15</sup> See: [www.lugemisyhing.ee](http://www.lugemisyhing.ee).

In the section below we address the following questions:

- Compensating socio-economic and cultural background factors
- Support for children with special needs
- Promoting preschool attendance, especially among disadvantaged children
- Provisions for preschool children with language difficulties
- Support for children and adolescents whose home language is not the language of school.
- Preventing early school leaving
- Addressing the gender gap among adolescents, etc.

This section refers to children and adolescents who out of different reasons can be considered as a group “at risk” (from disadvantaged homes, those whose home language is not the language of school, or those with “special needs”). The focus is on preventing literacy difficulties among members of these groups. There is a certain overlap with the topic “Identification of and support for struggling literacy learners”, dealt within the section, “Improving the quality of teaching”, which is concerned with those who have already developed literacy difficulties (see 5.2.4).

### **5.3.1 Compensating socio-economic and cultural background factors**

The child’s **socioeconomic and cultural background** has a strong impact on literacy. Material poverty and educational level, particularly of the mother, are well-recognized main factors influencing literacy (World Bank 2005, Naudeau et al. 2011). Socio-economic background also influences biological risks to children, by determining early exposure to risk factors and increased susceptibility (Jednoróg et al., 2012). The primary language spoken at home also influences literacy development (Sylva et al., 2004).

In order to describe the socioeconomic and cultural factors that influence emergent literacy, several indicators were used which stem from international surveys, thus providing comparability across Europe (for more information concerning the concepts and indicators s. Appendix A).

#### **Gini index**

The Gini index is the most commonly used measure of inequality, and represents the income distribution of a nation’s residents with values between 0 (maximum equality) and 100 (maximum inequality). In the European countries participating in ELINET the range is from 22.6% in Norway to 35% in Spain (for an overview of European countries see table A1 in Appendix B). With 32.5 % Estonia is at the lower end of the distribution among the European countries.

#### **Child poverty**

An indicator of child poverty is the percentage of children living in a household in which disposable income, when adjusted for family size and composition, is less than 50% of the national median income (UNICEF Innocenti Research Centre 2012). The range is from 4.7% in Iceland to 25.5% in Romania (for an overview of European countries see table A2 in Appendix B). No data are available for Estonia.

#### **Mother’s education level**

The PIRLS 2011 database offers information about mother’s level of education referring to ISCED levels. Since Estonia did not participate in PIRLS, there is no comparable data available for Estonia. PISA 2012 reports that almost half of the mothers have higher education, and only 6% of mothers have basic education (Lindemann, 2013).

## Teenage mothers

There is no comparable data available for Estonia (for an overview of European countries see table A4 in Appendix B).

## Single parent

According to Eurostat (2012, Figure A 7), in Estonia the percentage of children living mainly with a single parent is 11.0%. The range for the European countries participating in ELINET is from 1.4% in Croatia to 30% in Denmark (for an overview of European countries see table A5 in Appendix B).

## Migrant parents

No comparable data are available for Estonia (for an overview about European countries see table A6 in Appendix B).

## Primary language spoken at home different from language used at school

No comparable data are available for Estonia; for an overview of European countries see table A7 in Appendix B.

**Strengths and challenges:** There are about 10% of school-aged students instructed in languages other than Estonian, mainly instructed in Russian and English (Estonian Statistics, 2014). Teaching multilingual classes is a part of teacher training but needs more attention when it comes to training in-service teachers. All graduates pass the national examination in Estonian as their first or second language.

In general, relatively high PISA results of Estonia also need attention. Among those who demonstrated basic or higher level reading proficiency, Estonia was the best in Europe in reading, math, and natural sciences. Like in many countries, children with any other mother tongue than the official language(s) of the state (7% of participants), though, need relatively more attention. In Estonia, the PISA 2012 results of those who did not use L1 were relatively low, showing a deficit equal to nearly a year of studies. This relatively low functional proficiency in reading may cause problems in further studies and in future competing in the labour market. At the same time, 21 % of the students performed the test in Russian (HTM, Innove, 2013, p. 1), making it hard to assess their potential of socialisation, the official language being Estonian. The problem is bigger, knowing that even performing the test in Russian, those students' results were 44 point lower than the mean result of the country in reading, 31 points lower in math, and 35 points lower in natural sciences (HTM, Innove, 2013, p. 6). This makes our good result hard to compare to the countries where the test is performed in the official language.

The problem itself is much wider. In the era of mobility and constant short or long term migration, being literate (or even having tertiary level professional education) does not mean managing in the countries with official languages other than one's mother tongue. Surveys such as Surveylang (2013) give information about subskills in some languages taught in Europe but cover neither most of the European languages nor mother tongues spoken in Europe.

### 5.3.2 Support for children with special needs

In Estonia, the situation of people with special needs is well mapped. As to their rights, both physical access to public places, incl. schools and libraries, and intellectual access to information presented in a physical, electronic or other format are constantly growing. Intellectual access through information

technologies includes access to websites, images, classifications, catalogues, archives, the records of the state and local government, periodicals, digital documents and library services in an appropriate manner and form (e.g. use of large print, Braille, audio recording, subtitles) (Oliver et al. 2012). Not only children from culturally disadvantaged families are “at risk” in their literacy development but also those with very low birth weight and severe prematurity, factors that are associated with developmental disabilities, including reading and writing disabilities. Also cognitive and sensory disabilities must be considered.

### **Very low birth weight and severe prematurity**

According to PERISTAT (2010, Figure 7.11, p.149) the percentage of live births with a birth weight under 2500 grams in Estonia was 3.2%. The range is from 3.0% in Iceland to 8.8% in Cyprus (for an overview of European countries see table E1 in Appendix B).

According to the same source (PERISTAT, 2010, Figure 7.14, p.155) the percentage of live births with a gestational age <32 weeks is 1.1% in Estonia (with a range from 0.7% in Iceland to 1.4% in Hungary). The percentage of live births with a gestational age between 32 and 36 weeks was 4.6% (with a range from 4.5% in Lithuania to 7.5% in Hungary (for an overview of European countries see table E2 in Appendix B).

### **Cognitive or sensory disabilities**

Under the age of 15 years, 2% of the Estonian children have severe activity limitations and 4% of them have moderate activity limitations but there is no public data of the nature of those limitations. As to their potential intellectual access, the trends from 2008 to 2013 need attention. In 2013, the share of early school leavers among 18–24-year-olds was 9.9% in general while it was 40% among people with any kind of activity limitations. In 2015, the share of people with tertiary education in the age-group of 30–34 in general was 45.2% while it was only 19.7% in the same age-group with activity limitations. (Statistics Estonia, 2014.)

### **5.3.3 Promoting preschool attendance, especially among disadvantaged children**

The benefits of attending preschool institutions have been proven in many studies. The duration of attendance is associated with greater academic improvement (Mullis, Martin, Foy & Drucker, 2012). According to European Commission/ EACEA/ Eurydice/ Eurostat (2014, Figure C1 p. 62), the enrolment rate in Estonia at age 4 is 89.1%. Estonia does not yet reach the European benchmark for at least 95% of children between age 4 and the start of compulsory education participating in ECEC (for an overview of European countries see table C1 in Appendix B).

**Strengths and challenges:** The OECD Family Database (2014) offers more differentiated figures of participation rates at age 3, 4 and 5. According to 2010 statistical data, the participation rate is 91.2% for 5-year-olds, 92.0% for 4-year-olds, and 86.1% for 3-year-olds (OECD 2014) (for an overview of European countries see table C2 in Appendix B).

No child should be excluded from preschool because parents cannot afford to send their children to preschool/kindergarten institutions if they have to pay. While in half of the European countries the entire period of ECEC is free, in Estonia pre-primary education is not free. Parents pay fees in order to cover partially a number of the pre-primary institution financial issues (Eurypedia, 2014c). Estonia does

not belong to the half of the European countries where the entire period of ECEC is free. Many countries provide at least one year of free pre-primary education.

### **5.3.4 Provisions for preschool children with language problems**

Literacy competence strongly builds on oral language proficiency, word knowledge, and syntactic knowledge. Measures must be taken by governments and institutions to ensure that children with poor language development (second-language speaking children and those from a low socio-cultural background, as well as others who experience difficulty in learning language) acquire adequate levels of oral language in kindergarten, preschool institutions and in school. It should be ensured that at age 4 at the latest all children are diagnosed in their oral language proficiency, and that there are obligatory courses for children falling behind in their acquisition of language competence. The aim should be that all children entering school can speak the language of the school so that they can profit from reading instruction. According to European Agency for Special Needs and Inclusive Education (2009), in Estonia children with special needs get support in mainly in mainstream Kindergartens and only in some cases they attend special Kindergarten. There is provision for support from educational psychologists, speech and language therapists, special education needs teachers and other specialised professionals (European Commission/EACEA/Eurydice/Eurostat, 2014, p. 109). However, there is no systematic assessment of children in order to identify language development problems (Eurypedia, 2014a).

### **5.3.5 Support for children and adolescents whose home language is not the language of school**

According to the national curriculum, a school can provide Estonian as a Second Language instruction, when a pupil's mother tongue is other than Estonian, or the pupil has arrived from abroad where the experience of Estonian language instruction in basic school has been less than six academic years. Besides language instruction, learners' command of the language will also be developed through content and language integrated learning (CLIL). (Estonia. Government of the Republic, 2011a.) The Basic and Upper Secondary School Act 2010 (last amended 2013) states that a school will organise language and cultural teaching for students acquiring basic education whose native language is not the language of instruction or who communicate at home in a language different from the language of instruction, which is the native language of at least one parent, provided that no fewer than ten students with the same native language or with the same language of household communication request it (Estonian Republic, 2010, Chapt. 3: §21). There are also independent Sunday schools, where some ethnic minorities are taught their native language (Ministry of Education and Research, 2010).

Other specific measures can also be applied for immigrant pupils, when necessary. These include complementary study of Estonian language for four hours per week, simplified curricula (like no demand for study of second language or the second language can also be the mother tongue), simplified terms for national tests, appointment of assistant teachers, who should help to socialise into the school culture, and others.

**Strengths and challenges:** As the recent wave of migration may be big, Estonian universities have offered to voluntarily teach newcomers from Syria and other war regions.

### **5.3.6 Preventing early school leaving**

#### **Literacy provision and participation in secondary schooling: What is the rate of early school leavers?**

One important, but certainly not sufficient, precondition for raising performance levels in literacy for adolescents is literacy provision during secondary schooling, as functional literacy is mainly acquired in school-based learning. Thus, the provision of secondary education for all adolescents and the prevention of early school leaving may serve as indicators for the opportunities of adolescents to improve their literacy performance especially related to basic functional literacy.

According to Eurostat (2015), the rate of early school leavers for all education stages in Estonia was 9.7% in 2013 – down from 10.3% from the year before. Target value set for early school leaving (ESL) in 2020 is 9.5%. In the general education system, the number of school leavers was quite high in upper secondary school, reaching 7.4% in 2013 (Praxis, 2015).

The compulsory education in Estonia lasts 9 years: from the age of 7 until the age of 16 (Eurydice, 2014c). When it comes to students (ISCED 1-6) aged 15-24 years – 62.1% of the population was in some form of education in 2011. This seems to be an increasing trend, as in 2012, the rate stood at 63.4%. (Eurydice, 2012).

The percentage of 18 year-olds in education was 87.3% in 2011, which situated Estonia above the EU-27 average (80.7%). By 2012, this indicator increased to 92.1%. Since 2001, Estonia has consistently exceeded the EU average value for this indicator. (Eurydice, 2012).

### **5.3.7 Addressing the gender gap among adolescents**

The Lifelong Learning Strategy 2020 of Estonia states that among others, gender related learning barriers still exist. The strategy underlines the importance of targeting financing towards different support groups and their needs, rather than providing general support. (Ministry of Education and Research, 2014). Also, the national curriculum states that, among other things, gender has to be taken into consideration in teaching (Estonia. Government of Republic, 2011a).

### **5.3.8 Increasing participation, inclusion and equity for children and adolescents: Programmes, initiatives and examples**

Recently, a Welcoming Programme (regulation) has come into force in Estonia. Established on the basis of the Aliens Act, subsection 491 (2) of the Citizen of the European Union Act and the Act on Granting International Protection to Aliens, the regulation is meant to help foreign nationals, citizens of the European Union and their family members, who have lived in Estonia less than five years (Estonia. Minister of Interior, 2015). Subfields of the programme include multiple supporting of family life (Annex 5), children and young people (Annex 7).

### **Activities against poverty**

In Estonia, the financial situation is relatively good only in the sense that the state has no loans placed on the shoulders of the future generations. The state support to families with children with no special needs is very small. As compared to EU-28 where the mean social protection expenditure rate is 29.1% of GDP, social protection is very low: Estonia is named among the countries, where the lowest share of 15.1% of GDP was registered (Eurostat, 2014). As people are relatively poor (the mean salary still staying under 1000 euros per month; see more *Labour costs and wages* in Statistics Estonia, 2015,

pp. 24-27), the state gives financial assistance to institutions, providing music, sport, and arts education to people under the age of 23 years. According to public information available via the Internet, local governments also support those schools financially to some extent.

Based on Social Integration of Disabled Persons (Statistics Estonia, 2014), the situation of people with special needs is quite hard. In 2013, 13% of persons with activity limitations lived in severe material deprivation, which is 5 percentage points higher than the corresponding share of the total population. The average annual expenditure per household member was 3,500 euros in 2012 for households as a whole. The expenditure per household member in households with members with disabilities, a loss of capacity for work and/or activity limitations was, on average, about 500 euros smaller despite the extra expenses coming from disability situation (Statistics Estonia, 2014).

### **Cultural integration programmes for migrant families**

In Estonia, the immigration level is very low; the number of asylum seekers was 160 in 2014 and 100 in 2013 (International Migration Outlook, 2015, p. 200). The literacy level of migrant families is relatively high. As the result of that, main problems do not concern literacy but cultural integration and learning local languages. To give constant cultural support to all migrant families, the national Integration and Migration Foundation was founded in 1998. Its values are declared to be competence, caring, co-operation, and openness. The foundation works under three national programmes, "Integration programme by fields of society", the foundation programme 2015-2020, and the foundation programme for activities of the year. All activities are financed by the state, although some of the finances come from EU structural assistance to Estonia (European Social Fund). As to their homepage (MISA, 2015) the foundation supports local innovations and activities, and gives yearly prizes, they regularly organise language and culture camps for families with children all over the country as well as informal occasions dedicated to language and cultural matters.

### **Policies / programmes to prevent early school leaving**

In Estonia, problems associated with early school leaving are monitored in great detail (Eurydice, 2013b). A central monitoring body is the Estonian Educational Information System (EEIS), which is a national register that consolidates information on the education system, including information on educational institutions, pupils, teachers, graduation documents and curricula. Local governments can use EEIS to access information on the pupils living in their territory, and on those who have moved to a school located in the territory of another local government. Educational institutions are obliged to enter information into the EEIS and to check and amend the entered information for accuracy. Pupils and teachers can view the education-related information held on them. The register tracks each student's education career. It is also visible if the student has dropped out of school and if he/she has continued in an evening school, vocational school, etc. The register does not provide data about entry into the labour market (European Commission, 2013b).

### **Programmes to prevent segregation of low SES and high SES students**

The Lifelong Learning Strategy 2020 of Estonia states that learning opportunities should be available to all members of society, particularly those with lower competitiveness in the labour market, so that they can acquire a qualification and maximise their potential in their working life as well as in their family life. Target groups such as immigrants, the unemployed, those without secondary education, or others will be offered flexible training courses to develop their key competences and to increase their

readiness to learn. Support services will also be offered and standards for support services will be developed, which will allow offering quality services regardless of the area or region (Ministry of Education and Research, 2014). It has been stated that basic schools also have an important role in guiding young people for them to choose the area where to continue their studies according to their abilities and interests - while being aware of different opportunities (Ministry of Education and Research, 2012).



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