



LITERACY IN FINLAND

COUNTRY REPORT

CHILDREN AND ADOLESCENTS

March 2016

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1 Introduction

This report on the state of literacy in Finland 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 countries¹. 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 2012². All country reports produced by ELINET use a common theoretical framework which is described here: "ELINET Country Reports – Frame of Reference"³.

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 equity⁴).

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"⁵.

¹ For more information about the network and its activities see: www.eli-net.eu.

² 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.

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

⁴ "Equity" was added by ELINET.

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

2 Executive Summary

LITERACY PERFORMANCE DATA

Finland participated in IEA's PIRLS (4th graders reading comprehension) only in 2011, in OECD's PISA (15 year-olds' reading literacy) since 2000, 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 for 15 year-olds, and to compare relative reading levels of proficiencies for different age groups. Finland took part only in the last PIRLS cycle: no trends can be reported in that case.

In PISA 2012, Finland performed well above the EU average (524 vs 489 EU average). However, despite this relatively good performance, a small decline was observed between 2000 and the two last PISA cycles (-22 score points between 2000 and 2012), namely the equivalent of a half-year of schooling.

In PISA 2012, a limited proportion of pupils (11%) can be considered as low-performing readers. This is less than in EU countries on average (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 increased between 2000 and 2012 (by 4%). This increase was observed mainly among boys (from 11% of low-performers in 2000 to 17.7% in 2012). Data point to 4.6% of low performers among girls in 2012; they were 3.2% in 2000, indicating a shorter increase. The proportion of top-performing readers was 13% in PISA, higher than the EU average (7%).

The gap according to the pupils' socioeconomic background was lower than the EU average (61 vs 89 on average). In PIRLS, this gap is lower as well (54 vs 76 on EU average). However, the indices of socioeconomic background are not the same in PIRLS and PISA, so the comparison should be taken with caution. These data tend to indicate that the Finnish educational system is more equitable than most of the European countries.

In PISA 2009, the gap between native students and students with a migrant background was higher than in EU countries on average (70 vs 38 EU-average). The percentage of students with an immigrant background was very low (2.6% vs 8.3% in EU). The gap between students speaking the test language at home and those reporting another language was higher than the EU average (61 vs 54).

The gender gap (in favour of girls) was higher in Finland (55 vs 44 on average) than the corresponding EU average differences. The decrease in reading performance observed between 2000 and 2012 was stronger among boys (- 26 score points) than among girls (- 15 score points), resulting in an increase of the gender gap, with a peak at 62 points in 2012.

In conclusion for PISA, Finland is a highly performing education system: 15 year-olds performed much better than EU countries on average, leading the country among the top countries in the ranking. Despite a gradual decrease, it has remained well above the EU average over time. Its advantage still reaches 35 points, namely nearly one year of schooling. It was 55 points at the beginning of the study in 2000. The proportion of low-performing readers is lower and the proportion of top-performing readers is higher than the EU average. The decrease of the overall performance and the increase in the percentage of low performers were more significant among boys. However, it should not be a source of major concern as their performance is still well above the EU average.

The spread of achievement (gap between low and top performing readers) is lower than in the EU on average.

The gap according to migration or language spoken at home tends to be somewhat higher in Finland than in the EU on average. Nevertheless, it should be underlined that Finland has a percentage of students with an immigrant background, and a percentage of students speaking another language at home which is very low in comparison to EU countries on average. The gap according to socioeconomic status and migration background is much lower than in the EU on average in both studies. The Finnish educational system is then more effective, but also more equitable than in EU countries on average.

In PIRLS 2011, Finnish pupils performed well above the EU average (568 vs 535 EU-average), leading their country at the top of the ranking, with an advantage on the EU mean equivalent to one year of schooling. The proportion of low performing readers was well below the EU average (8% vs 20%). The proportion of good readers was much higher than in EU-countries (18% vs 9%).

The mean score difference between students who always spoke the language of the test at home and those who sometimes or never did so was slightly higher than the EU average (28 vs 26). The mean score difference according to the gender was in PIRLS 2011 equal to 21, somewhat higher than the EU-average (12), namely the equivalent of a half-year of schooling.

As far as adults are concerned, Finland performed above the EU average in PIAAC (288 vs 271). It should be remembered that only 17 EU countries took part in PIAAC in 2012, so the comparison with other age groups should be taken with caution. The spread of achievement – namely the gap between top and bottom performers – was somewhat wider in Finland than the EU-17-Average (123 vs 117 on average). The proportion of adults performing at or below level 1 in Finland was 11%, less than the EU-17 average (16.4%).

The performances of females and males were very close (289 vs 286); the gender gap was very slightly higher in Finland (3 score points) than in the EU on average (2 score points). The mean score difference was in favour of females which is coherent with what is observed in younger generations even if the difference with the EU average was higher among 4th grade and 15 year-old students. The gap according to parents' level of education was exactly the same as in the EU countries on average (41), whereas in PIRLS and PISA, this gap was much lower than in the EU on average. The gap according to the language spoken at home was somewhat different: the gap between native and non-native speakers was larger than the EU-17-average (38 vs 28).

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.

Overall, the literate environment at home in Finland supports reading development as parents on average have a positive attitude towards reading, educational resources as well as the number of books at home are relatively high, and children are read relatively often before school-age (Mullis, Martin, Foy & Drucker, 2012). However, parents’ awareness of the role the home can have in reading development of the children should be addressed. Particularly, parents should be encouraged to continue to read to their children, also after school start, and they should be aware of the benefits of early literacy activities other than reading to children, such as verbal interaction and playing games with words and shapes.

Children and Adolescents

Creating a literate environment in school: According to PIRLS 2011 Encyclopaedia, there is major emphasis on reading for pleasure in the intended language/reading curriculum in Finland (Sulkunen, 2012). According to PIRLS 2011, children's books are used as a supplement in teaching for a vast majority of students, as are reading series. Moreover, the proportion of students using computer software as a supplementary learning material is clearly above EU average. However, textbooks and workbooks dominate among resources Finnish teachers use for teaching reading (Mullis, Martin, Foy & Drucker, 2012, p. 236). Similar results about the dominating role of textbooks have also been reported for lower secondary schools (Luukka et al., 2008).

Based on data provided by their teachers, PIRLS 2011 shows that half the pupils in Finland were in classrooms which had class libraries – well below the corresponding EU-24 average (Mullis, Martin, Foy & Drucker, 2012, p. 240). Despite the active cooperation between public libraries and schools, classroom libraries should be invested in to guarantee every child an easy access to diverse reading materials.

Offering digital literacy learning opportunities in schools (and other public spaces, e.g. libraries): Finnish schools have above-average levels of ICT infrastructure. In primary grades, according to PIRLS 2011, Finnish students use computers for information search and writing stories more often than their peers in Europe. However, in lower secondary grades, the use of ICT is below-average. The percentage of students that claim to use ICT in class at least weekly is below the EU average at all levels (European Commission 2013). Thus, there is need to improve ICT use for pedagogical purposes. Therefore the Finnish Government has introduced digitalisation in education as one of its special investment areas (Ministry of Education and Culture, 2015e). There is also a need to integrate ICT skills and digital literacy into teacher training for all teachers

The role of public libraries: Public libraries are an important agent in reading promotion. Schools and libraries have a long tradition of collaboration in Finland. The Ministry of Education and Culture emphasises in its Library policy 2015 that library staff ought to have expertise and training to meet new challenges in our rapidly changing information society, and to be able to provide guidance on information searching and management to students. Library services should be of high quality and meet the needs of inhabitants in their area, in order to diminish a digital gap and marginalisation in terms of the information society (Ministry of Education and Culture, 2009). Libraries offer various materials, for they wish to serve everybody in their area. Books and printed materials will have a central position in library materials for a long time to come, but libraries are already seeking ways to provide more for children and youth, who are more accustomed to information technology and non-printed materials.

Literate environments for children and adolescents: Programmes, initiatives and examples: The **Finnish Reading Centre**⁶ organises innovative and successful reading campaigns in Finland. Their basic activity is organising author visits for instance to schools amounting to over a 1000 events each year. The Finnish Reading Centre also has annual campaigns, the most visible of which is "Lukuviikko" (Reading Week). In the campaign schools, libraries and other organisations organise campaigns, events and other ways of promoting reading during one week each Spring. In April 2015, the Reading Centre initiated a programme called *100 authors, thousands of encounters* to widen the scope of the author

⁶ See <http://www.lukukeskus.fi/the-finnish-reading-center/>.

visits. In this programme authors have met their readers in several diverse settings: for example a children's novelist has visited a kindergarden's parents' meeting, and a comic artist has presented his work to future graphic designers. The authors also visit prisons, hospitals and residents' meetings.

In the national **Lukuinto-programme** (Joy of reading), schools and libraries have worked together to start and consolidate their cooperation. The participants have gathered and improved concrete ideas to take away to their own libraries and schools. For sharing good practices, Lukuinto-programme has organised training events together with Regional State Administrative Agencies. Local and national media have followed Lukuinto events around Finland and the reading status of Finnish children and young people is seen as an important topic in the media. The President of the Republic Sauli Niinistö is the patron of the Lukuinto theme year in 2015. Additionally, Lukuinto ambassadors, authors Siri Kolu and Aleksis Delikouras, as well as librarian Agneta Möller-Salmela visit schools and libraries during the Lukuinto theme year - also virtually. Ideas tested and produced for cooperation between schools and libraries as well as for use at home can be found on the Lukuinto website.

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: In Finland, every child has a subjective right to early childhood education and care, regardless of the family's situation. Additionally, high quality care has been provided with relatively small expenditure (Eurostat, 2014), and pre-school teachers in Finland must have, at a minimum, a 3-year university degree. Compared to other European countries this is a high level of qualification. However, the government has recently (in October 2015) suggested a new law in which the subjective right to early childhood education and care is limited to 20 hours per week. Children whose parents are working, whose family circumstances, or whose development require it, would still be entitled to full-day care. Additionally, the government suggests that the ratio of children to teachers is changed from 7 to 8 children per one adult in the groups consisting of children aged 3 or older (Ministry of Education and Culture, 2015c). If realised, these changes in legislation will likely affect the groups most in need of special support.

Preschool language and literacy curriculum: In Finland, fostering the **development of emergent literacy skills** is an important function of pre-school institutions, providing a basis for formal literacy instruction in primary school. It is emphasised that children are motivated to participate in emergent literacy activities implemented in meaningful and communicative contexts in order to understand the functions of spoken and written language (Finnish National Board of Education, 2010a, p. 10-11). The national curriculum instructs that children in pre-primary education should be frequently involved in

reading and writing activities. They should be aware that print carries the message and be able to grasp written language in accordance with his or her own abilities. They should have been provided with different types of printed materials and have the opportunities to read alone and together with other children or adults (Eurydice, 2011, p. 55-56; Finnish National Board of Education, 2010a, p. 10). The aim is that the classroom environment provides children with rich linguistic stimuli and enables the implementation of activities which support children's linguistic development. Furthermore, children's literacy skills are improved by a learning environment which enhances their exposure to diverse texts.

Children and Adolescents

Literacy Curricula and Reading instruction in schools: Finnish national curricula for different school and grade levels emphasise literacy in an age-appropriate way. Reading engagement, that is reading for pleasure, and the wide concept of texts is emphasised throughout educational levels. At pre-school level the emphasis is on emergent literacy and play-like activities. In primary school the curriculum focuses on teaching reading using phonics but also reading comprehension strategies are introduced already in grades 1 to 2. In lower secondary grades, students are expected to develop further their reading strategies, engage in increasingly diverse literacy activities, and adopt critical literacy, also evaluate texts in information search contexts (Finnish National Board of Education, 2014). In upper secondary level, literacy has a particularly strong focus on academic track but also in vocational curriculum literacy integrated to the field of study has a role.

Strength of the Finnish school is that it has succeeded in providing students with a relatively good level of competence, on average. However, there is some evidence, e.g. from PIRLS 2011, that the implemented curriculum does not meet the requirements of the intended one, particularly when it comes to reading strategies which have a strong position in the intended curriculum but are taught less frequently than in the EU on average (Mullis, Martin, Foy & Drucker, 2012). This is something the teacher educators should pay attention to. Additionally, instruction has not succeeded in engaging and motivating students in learning to the same extent. Indeed, one of the challenges of the Finnish school is to respond to the low motivation for school work and low level of engagement of students. As a response to the declining trend in learning outcomes and relatively poor motivational results, the Finnish Ministry of Education and Culture launched the national development programme *Basic education of the future – Let's turn the trend!* The overall aim of the project was to provide analysis and recommendations for updating the Finnish basic education for the 21st century. One of the central themes of the project was motivation and teaching (Ministry of Education and Culture 2015d).

Digital literacy as part of the curriculum for primary and secondary schools: ICT competence is explicitly mentioned in the new Finnish national curriculum as a cross-curricular topic to be integrated into all school-subjects. Additionally, the cross-curricular competence of multiliteracy has a strong element of digital literacy as it introduces a wide concept of texts and literacy by emphasising multiple forms of cultural communication and using literacy in its many forms in multiple situations and contexts (Finnish National Board of Education, 2014). Digital literacy has a strong position also in media literacy which has a long tradition in the national curriculum. The Good Media Literacy Plan is intended to promote media literacy from 2013 to 2016. Finland is one of the few countries that have a governmental media education authority, the MEKU (Department for Media Education and Audiovisual Media) within the Ministry of Education and Culture (Universitat Autònoma de Barcelona, 2004). Additionally, Finnish schools feature extremely high levels of infrastructure provision compared to other EU countries. The majority of students enjoy excellent technological equipment and internet

connectivity. However, the number of teachers who apply ICT in at least 25% of lessons is below EU average at grade 8 and slightly above at grade 11 general and vocational. The percentage of students that claim to use ICT (that is school computer, own laptop, own mobile phone) in class at least weekly is below the EU average at all levels (European Commission 2013).

Early identification of and support for struggling literacy learners: Identifying special educational needs is mainly based on early identification in Finland. This is a duty of school and teachers, who are required to also work together with parents (Finnish National Board of Education, 2014, p. 62–63). There are several standardised tests available for reading assessment in early school years, but some for young people as well. Their use is not obligatory but depends on the decisions made at school. In Finnish primary schools, diagnostic testing of reading is practised somewhat regularly (see Sulkunen, 2012).

PIRLS offers some data concerning issues of remedial instruction in primary schools. Finnish teachers estimated that 12.3% of students in fourth grade in Finland are in need of remedial reading instruction while a somewhat smaller proportion of students receives it. In Finland, 7.9% of students in fourth grade performed at or below the PIRLS low benchmark on overall reading. Hence, the percentage of students in Finland receiving remedial reading instruction is slightly greater than the percentage performing poorly on PIRLS.

In Finland, students have a legal right to adequate support for learning. Support is divided into general, intensified and special extents. General support refers to every pupil's right to receive good quality education that takes their abilities and needs into account. Remedial teaching, with individualised learning tasks and use of time as well as guidance and counselling, is a part of this (Finnish National Board of Education, 2014). Intensified support is for students who need continuous support in their instruction. Support measures are tailored specifically for the student with the aims of systematically facilitating the student's learning and preventing problems from accumulating (Finnish National Board of Education, 2010b). According to teacher responses in PIRLS 2011, 99.4% of students in Finland are in classes where there is always or sometimes access to specialised professionals to work with students who have reading difficulties, compared with an EU-24 average of 66.7%.

Overall, most Finnish students in the need of support receive it, particularly at primary grades. However, as according to the PISA results the proportion of struggling readers has increased steadily and currently, for instance, nearly every fifth boy is placed on low levels of literacy at the age of 15, it is evident that these students' individual needs have not been successfully met. There are several possible explanations starting from lower resources for support in lower secondary stage to traditional pedagogical solutions that do not engage students in reading and learning. Also the specialised support may place too much emphasis on basic reading and cognitive skills, leaving aspects related to motivation and self-concept to the side. In all, there seems to be rather a strong view among Finnish researchers that pedagogical culture in the Finnish school should be developed into a more engaging direction (see e.g. Ouakrim-Soivio, Rininen & Karjalainen, 2015).

The quality of pre-service and in-service teacher training: In Finland, teachers are highly educated. The decree stipulates that all teachers shall have a Master's degree (Government Decree on University Degrees, 2004). According to PIRLS 2011, 82% of fourth grade students have teachers who completed a Postgraduate University Degree. Teachers have good knowledge of the most recent research about learning and pedagogy. They also have competencies to develop their teaching using methods and

approaches of scientific inquiry. However, according to TALIS 2013, only 8 percent of the teachers in lower secondary level do research (Taajamo, Puhakka & Välijärvi, 2014).

Teachers are obliged to participate in an in-service training for one to five days a year according to the relevant statutes and collective agreements. According to PIRLS 2011, 68% of Finnish 4th-graders had teachers who spent no time in CPD related to reading two years prior to the study (EU-24 average 29%) (Mullis, Martin, Foy & Drucker, 2012, p. 196). Finnish teachers in general participate in CPD less frequently than on average and use relatively little time for the CPD. According to the TALIS 2013 study, 79 per cent of the Finnish lower secondary school teachers participated in CPD during the year prior to the study which was below the international average (88 %) (Taajamo, Puhakka & Välijärvi 2014, 33).

In recent years, teachers' participation in in-service training has decreased, and there is clearly an urgent need for more systematic and frequent CPD. The Ministry of Education and Culture has started to emphasise teachers' professional development by doubling the funding for this purpose and launching a new development program (Ministry of Education and Culture 2015e). The themes both initial teacher education programmes and the continuous professional development activities should address include at least the following: Firstly, literacy expertise should become a clear standard for teacher education in all grades and subjects, since the new national curriculum for basic education explicitly introduces disciplinary literacy in the framework of multiliteracy as a cross-curricular competence which all subjects integrate with their content. Secondly, since class and subject teachers have a central role in providing general and intensified support for students that struggle, teacher education and professional development activities should be developed and offered accordingly. Thirdly, use of ICT for pedagogical purposes should be a priority in improving teachers' competences since it is lagging behind despite the relatively high level of infrastructure in ICT.

Improving the quality of literacy instruction: Programmes, initiatives and examples : A strength of the Finnish school is that it has succeeded in providing students with a relatively good level of competence, at least on average. However, instruction has not succeeded in engaging and motivating students in learning to the same extent. As a response to the declining trend in learning outcomes and relatively poor motivational results, the Finnish Ministry of education and culture launched the **national development program *Basic education of the future – Let's turn the trend!*** The overall aim of the project was to provide analysis and recommendations for updating the Finnish basic education to the 21st century. The report produced by 45 experts based on a research review included several proposals for developing basic education (Ministry of Education and Culture 2015d). The report underlines the need to develop a **new pedagogical culture** that would support both collaborative and individual learning. Instead of studying facts in discrete school subjects, learning should be a phenomenon-based activity across the curriculum in which students have an opportunity for "voice and choice", participation and active role (e.g. Harinen et al., 2015, p. 75). The new curriculum for basic education takes the first steps in this direction, but to change the pedagogical culture of the schools requires time and support from e.g. teacher training and teachers' professional development provisions.

Also, the **Lukuinto-programme** (Joy of Reading) targets the reading motivation and multiliteracy competence of children and young people aged 6–16 years. In the Lukuinto project, schools and libraries work together to develop novel models and improve existing practices that promote multiliteracy, new reading and writing skills, as well as reading enjoyment. The best practices are

gathered into an online material and idea bank, which is directed at teachers, library experts, parents and other educators (Lukuinto, 2015).

In the **new national curriculum** for basic education, literacy has an even stronger role than before, since it has a separate chapter in the common part concerning all school subjects. The concept of multiliteracy is introduced as a cross-curricular competence aimed at all subjects throughout basic education (Finnish National Board of Education, 2014, p. 21–22).

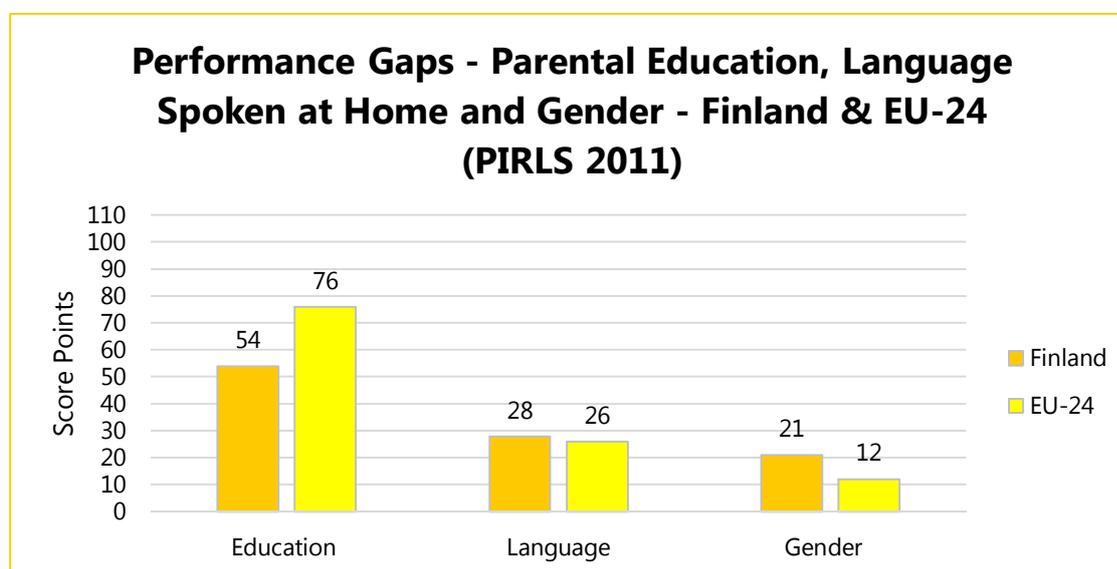
For supporting the pupils struggling with reading, **game-like approaches** have proven to be effective. Especially for struggling learners and children starting to learn to read a digital gaming environment GraphoGame provides extra training in early reading skills⁷. The game can be downloaded free of charge and used both in schools and homes.

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).

Performance gaps in Finland and on average across the EU-24 are shown in Figures 1 and 2. The figures show a below-average socio-economic gap and an above-average gender gap on both primary and post-primary level. The language gap is close to average at primary level but at post-secondary level, the gap between native students and migrants as well as second language learners is above the average.

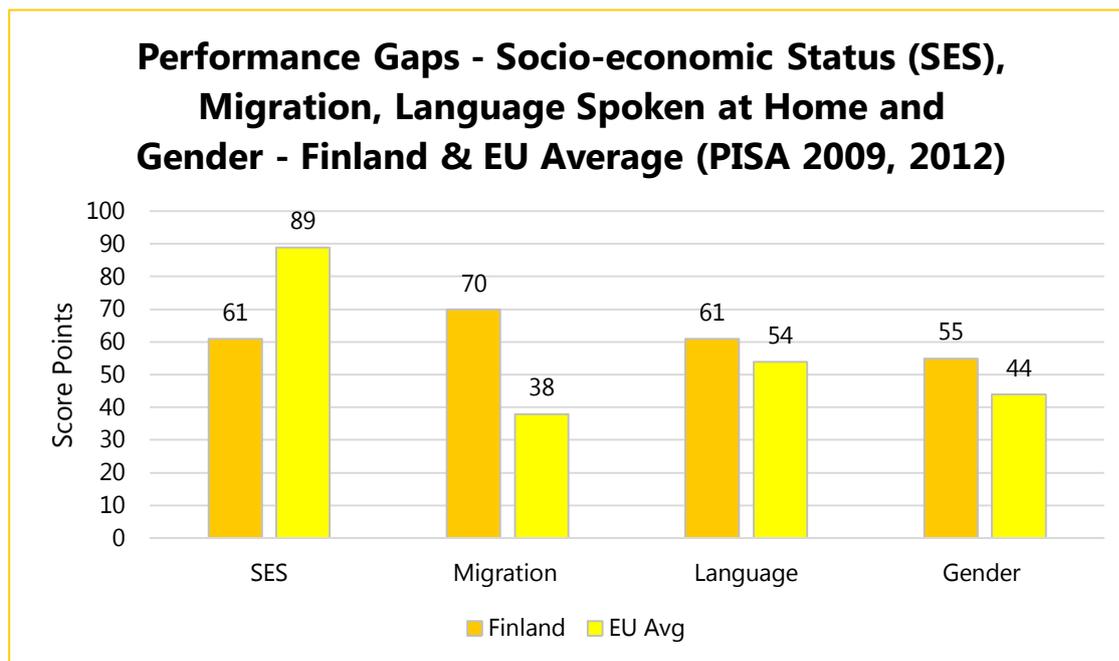
Figure 1: Performance Gaps in Finland and on Average across the EU-24 - Primary Level



Education: University – Lower Secondary or lower; Language: Language of test spoken always – sometimes/never; Gender: Girls – Boys.

⁷ See: <http://www.lukimat.fi/lukeminen/materiaalit/ekapeli/ekapeli-in-english-1/graphogame>.

Figure 2: Performance Gaps in Finland and on Average across EU Countries - Post-Primary Level



SES: Top – Bottom quartile on PISA ESCS scale; Migration: Native – first/second generation immigrants; Language: Speaks language of the PISA test at home – speaks another language; Gender: Girls - Boys

Pre-Primary Years

Encouraging preschool attendance, especially for disadvantaged children: The benefits of attending preschool institutions have been highlighted in many studies. The duration of attendance is associated with greater academic improvement (Mullis et al. 2012). However, Finland is the only country participating in PIRLS 2011 where there is no correlation between children's reading performance in grade 4 and the length of preschool education attendance. This may be partly explained by the fact that many educated mothers use their right to stay home until the children turn 3. PIAAC data shows that adults staying home have very high literacy proficiency, as the proportion of high-performers in this group (36 %) is higher than in other groups, including those at full-time work or students (Malin, Sulkunen & Laine, 2013, p. 52). Good educational resources at home could thus partly explain the relatively good performance of the small number of children cared at home.

In Finland, every child has a subjective right to early childhood education and care, regardless of the family's situation. However, the government has recently (in October 2015) suggested a new law in which the subjective right to early childhood education and care is limited to 20 hours per week. Children whose parents are working, whose family circumstances or whose development require would still be entitled to full-day care. Additionally, the government suggests that the ratio of children to teachers is changed from 7 to 8 children per one adult in the groups consisting of children aged 3 or older (Ministry of Education and Culture, 2015c). If realised, these changes in legislation will likely affect the groups most in need of special support.

Identification of and support for preschool children with language difficulties: Children in Finland with an immigrant background may participate in pre-primary education that has been organised in conjunction with other pre-primary education, in the form of instruction preparing for basic education, or as a combination of these (Finnish National Board of Education, 2010a, p. 47). These children differ

in terms of linguistic and cultural origin, the reason for immigration and the duration of residence. According to the national curriculum for the pre-primary education, children's backgrounds will be the starting point of instruction but in general, instruction will comply with the objectives of pre-primary education. In addition, there are specific objectives for immigrant education, for instance pre-primary education needs to support development of the Finnish/Swedish language, and that of the children's own native language, and the opportunity to grow into two cultures. Supporting children's own culture aims at children becoming aware of the cultural heritage of their own ethnic group and learning to appreciate it.

According to the national curriculum, instruction of Finnish/Swedish as a second language aims at children achieving functional skills in the Finnish/Swedish language during basic education (Finnish National Board of Education, 2010a, p. 48). Pre-primary is one of the first steps in this process. In pre-primary education, children have the opportunity to study Finnish/Swedish both under guidance and in natural communication situations with Finnish/Swedish-speaking adults and children. Additionally, pre-primary education aims at integrating children into Finnish culture. This instruction and the learning processes of children's native language are to be interwoven with all areas of pre-primary education.

Compensating socio-economic and cultural background factors: Finland has a low child poverty rate and on average a relatively high educational level. So far, there has been a relatively small number of migrant families, but the number of these families will increase significantly. Responding to the educational needs of migrants of different ages will be a challenge in the near future.

Children and Adolescents

Support for migrant children and adolescents whose home language is not the language of school: According to the national curriculum, instruction of Finnish/Swedish as a second language aims at children achieving functional skills in the Finnish/Swedish language during basic education (Finnish National Board of Education, 2010a, p. 48). Additionally, immigrant children have a right to similar support in case of e.g. learning disabilities than other children.

When the pupils are already integrated in the mainstream classes, they still have an opportunity to attend Finnish as a second language instruction in case the school provides such instruction. In bigger cities and in the areas with a larger immigration population (e.g. in Eastern Finland with a large Russian immigrant population) this is usually provided, but in small municipalities or schools where there are only few immigrant pupils, separate Finnish as a second language classes seldom exist. The same can be said about home language instruction, which is usually arranged only in big schools with a relatively big proportion of immigrant pupils having the same home language.

Support for both mother tongue and language of the school is one of the strengths in supporting students whose home language is not the language of the school in Finland. Among the challenges is the length of preparing education which does not always allow the proficiency in the second language (Finnish/Swedish) to become high enough for mainstream class education. Another challenge is that municipalities can themselves decide whether such education is provided for recently arrived immigrant children.

Preventing early school leaving: 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 basic functional literacy.

According to Eurostat (2015), the rate of early school leavers (ESL) in Finland was 9.3 % in 2013 – slightly higher than during the preceding year. A target value has been set for 2020, when the rate of ESLs should be down to 8%. Approximately 70% of the students (69.8%) aged 15-24 years (ISCED 1–6) were in some form of education in 2011, which was above the EU-27 average (61.9%).

Increasing participation, inclusion and equity for children and adolescents: Programmes, initiatives and examples: In Finland, equity in education is considered a priority. Hence, financial support is allocated to schools 'that work in a challenging environment' and who have lower academic performance. Schools in environments of high unemployment and low education rates, as well as schools where number of immigrants is high, have been supported in particular. (Ministry of Education and Culture, 2013a). Some cities also offer this kind of 'positive discrimination' grant for schools in challenging environments - Helsinki and Espoo to name a few (Ministry of Education and Culture, 2013b).

One example of policy aiming at the prevention of segregation and advancing equity is the **limitations regarding free choice of school**. As a rule, education is provided in neighbourhood schools or other suitable places which makes school travel as short and safe as possible (Ministry of Education and Culture, 2013a, 2013b).

The **Let's Read Together Network** supports immigrant women in integrating into Finnish Society. A network of Finnish women volunteers offer tuition in literacy and the Finnish language to immigrant women in various locations all over Finland. The idea of the activity is to complement the education provided by the authorities. The number of immigrants is rapidly increasing, and some of the people coming from war zones have not had the opportunity to go to school in years. Many of the illiterate immigrants are women. Some of these women may have participated in language courses but still their skills are inadequate for training and work. The Let's Read Together Network offers an informal context for language and literacy learning (Let's Read Together, 2015).

Capable parent -project in the city of Vantaa focuses on immigrants who need special support. The project offers Finnish language and literacy instruction to parents who care for their children at home. Additionally, the project organizes joint activities to parents and children in order to support parenthood and adults' integration into the Finnish society by providing them information about the Finnish society, developing everyday skills and encouraging them to use Finnish in everyday life. Group of 12 mothers and their children meet twice a week, and the first meeting is allocated to the formal language instruction with organized childcare. The second meeting is dedicated to mother-and-child-activities, such as field trips, singing and spending freetime together. The objective of the project is to advance participants' basic vocabulary and functional communication and literacy skills. The participants speak 9 different languages as mother tongue, and the time they have been in Finland varies. (Intke-Hernandez, 2015.)

3 General Information on the Finnish Education System

In Finland, education is considered to be one of the fundamental rights of all citizens, and the aim of the Finnish education policy is to offer all citizens equal opportunities to receive education, regardless of age, domicile, financial situation or mother tongue. (Ministry of Education and Culture, 2015a.) The structure of the education system reflects this principle as it has no dead-ends. Students can always continue to an upper level of education, regardless of the choices they make in between. For instance, both general and vocational upper secondary certificates provide eligibility for higher education. (Ministry of Education and Culture, 2015b.)

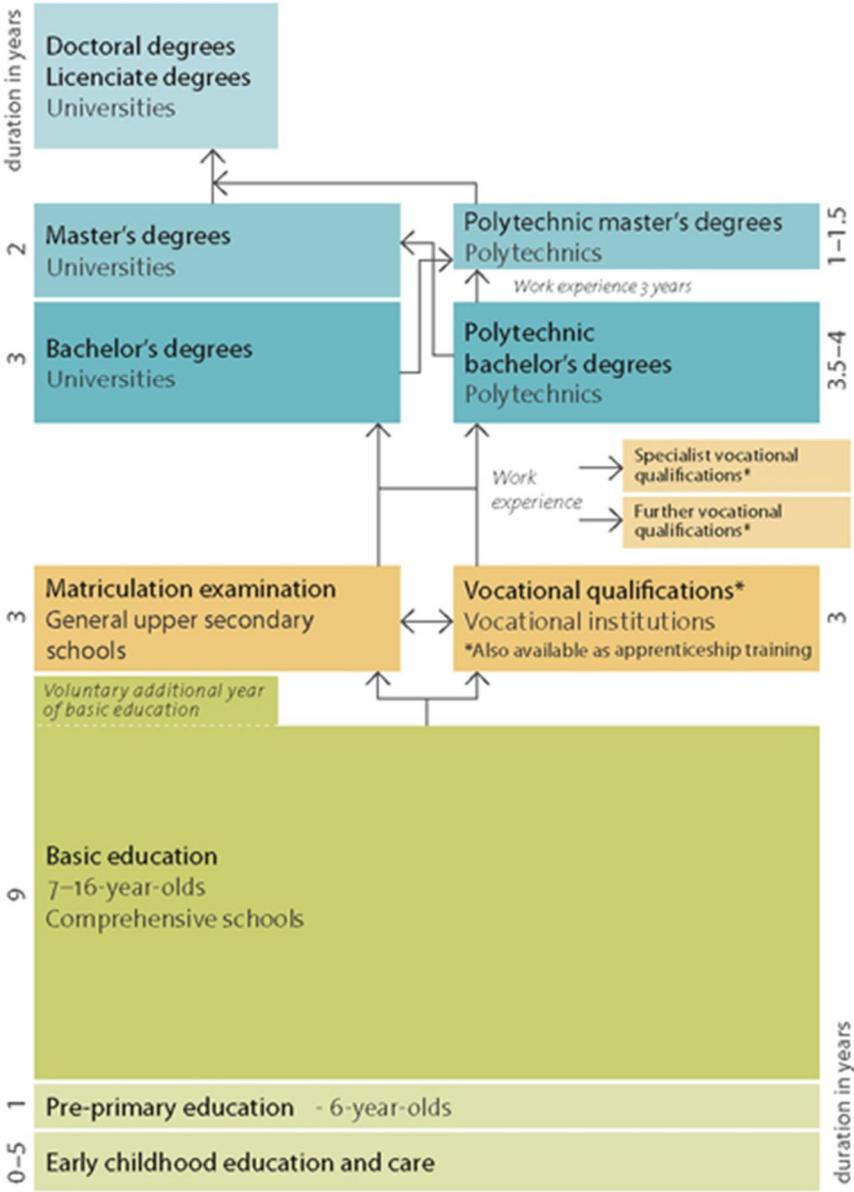
The general objectives of basic education and the allocation of instructional time between different subjects are determined by the government. The National Board of Education, which is subordinate to the Ministry of Education and Culture, decides on the objectives and contents of instruction in different subjects, recording them in a national curriculum. (Finnish National Board of Education, 2015a.) Most education and training is publically funded, and most primary and upper secondary level institutions are maintained by municipalities or federations of municipalities. Private schools receive the same level of public funding as the publicly-funded schools. There are no tuition fees at any level of education. In basic education also school materials, school meals and in some cases also transport are provided free of charge. In upper secondary education students pay for their books and transport. In addition, there is a well-developed system of study grants and loans. Financial aid can be awarded for full-time study in upper secondary education and in higher education. (Finnish National Board of Education, 2015a.)

Municipalities as education providers have a significant amount of freedom in organizing the schooling within the guidelines provided by the Ministry and the National Board (Finnish National Board of Education, 2015a). Governance is based on the principle of decentralisation since the early 1990s. Education providers are responsible for practical teaching arrangements as well as the effectiveness and quality of the education provided. Local authorities also determine how much autonomy is passed on to schools. For example budget management, acquisitions and recruitment are often the responsibility of the schools. Additionally, schools (and teachers) have autonomy regarding the pedagogical practices used. Teachers' autonomy extends to assessment as well, comprising of both continuous (formative) assessment and the final assessment. Teachers are responsible for assessment in their respective subjects on the basis of the objectives included in the curriculum. The focus in education in Finland is on learning rather than testing, and there are no national high-stakes tests for pupils in basic education in Finland. (Finnish National Board of Education, 2015a.)

Before compulsory education begins, the child participates in one-year pre-primary education which since August 2015 is obligatory. Compulsory education usually starts in the year when a child turns seven. The scope of the basic education syllabus is nine years, and nearly all children complete this by attending the comprehensive school. The upper secondary level comprises general and vocational education. Both have a three-year syllabus. The general upper secondary school ends in the matriculation examination which provides eligibility for higher education studies in both polytechnics and universities. Also the vocational upper secondary qualification gives general eligibility for all higher

education. Commonly admission to higher education is based on the results in the matriculation examination and entrance tests. (Finnish National Board of Education, 2015a.)

Figure 3: Education system in Finland



Source: The Finnish National Board of Education⁸

Finland has built its educational system based on the principle of equity. By focusing on high-quality basic education for all, Finland has succeeded in fostering the individual potential of almost every child. There are hardly any private schools and no gifted programmes thus the general education can be said to offer equal opportunity to every child. Learning and education is compulsory, attending school is not. Parents have the right to teach their own children, in such cases evaluation is performed by professional teachers. (Finnish National Board of Education, 2015a.) This option is seldom exercised.

⁸ See http://www.oph.fi/english/education_system.

4 Literacy Performance Data for Children and Adolescents

4.1 Performance Data for Primary Children

The performance data for primary children are derived from the IEA's PIRLS studies. Note that in Finland, children attend either a Finnish-speaking or a Swedish-speaking school. In international assessments, such as PIRLS and PISA, the test language is the language of instruction, regardless of the language used at home or on leisure-time.

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 Appendices C and D).

4.1.1 Performance and variation in reading: proportion of low and high performing readers

Students in Finland achieved an overall mean reading score of 568 in PIRLS 2011 (Table 1). This was significantly higher than the mean scores of all other EU-24 countries in PIRLS. Students in Finland performed at about the same level on the reading purpose subscales (Literary, Informational) and on the reading processes subscales ('Interpret, Integrate & Evaluate; Retrieve & Inference) (ELINET PIRLS 2011 Appendix, Tables A2-A5).

Table 1: Overall Performance on PIRLS 2011 – Finland and EU-24 Average

	Overall Reading – Mean Score
Finland	568
EU-24	535

Significant differences (relative to the EU-24 Average) are shown in **bold**.

In Finland, 8% of students performed at or below the Low benchmark on overall reading (Table 2). This is well below the EU-24 average of 20%, indicating that there are relatively few low achievers in Finland compared to EU-24 countries on average. In Finland, 18% of students achieve at the Advanced

benchmark. This is double the EU average of 9%, and similar to countries such as Northern Ireland (19%) and England (18%).

Table 2: Performance by Overall PIRLS 2011 Reading Benchmarks - Percentages of Pupils – Finland and EU-24 Average

	Below 400	400-475 Low	475-550 Intermediate	550-625 High	Above 625 Advanced
Finland	1	7	29	44	18
EU-24	5	15	36	35	9

Finland's standard deviation of 64 is 6 points lower than the EU-24 average, indicating a slightly smaller spread of achievement (Table 3). The difference between the scores of students at the 90th and 10th percentiles in Finland – 162 points – is 18 points lower than the corresponding EU-24 average of 180.

Table 3: Spread of Achievement – Standard Deviation, 10th, 90th Percentiles, and Difference between 90th and 10th Percentiles on Overall Reading

	Standard Deviation	10 th Percentile	90 th Percentile	90 th -10 th
Finland	64	485	647	162
EU-24 Avg	70	441	621	180

Finland did not participate in PIRLS 2001 or 2006, so trends in performance over time cannot be examined.

4.1.2 Gaps in reading

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

Parent's educational achievement

In Finland, students whose parents completed University degree (or Higher) achieved a mean score that was some 54 points higher than students whose parents' highest level of education was Lower Secondary or below (Table 4). The average difference across the EU-24 was 76 points, indicating a relatively weaker relationship between parents' educational level and performance in Finland.

Table 4: Percentages of Parents Whose Highest Level of Education was Lower Secondary, and Percentages who Finished University or Higher

Level of Education	Lower Secondary or Below		University or Higher		Difference (Univ or Higher – Lower Sec)
	%	Mean	%	Mean	
Finland	4	532	42	587	54
EU-24	18	495	30	571	76

Statistically significant mean score differences in **bold**.

Primary language spoken at home different from language used at school

In Finland, 89% of pupils reported that they always spoke the language of the PIRLS reading test at home – higher than the corresponding EU-24 Average (80) (Table 5). 11% sometimes or never spoke the language of the test at home. The difference in achievement between pupils in Finland reporting that they always or sometimes/never spoke the language of the test was 28 score points – about the same as the EU-24 average difference (26).

Table 5: Percentages of Students Reporting that They Always or Sometimes / Never Speak the Language of the PIRLS test at Home, and Associated Mean Score Differences – Finland and EU-24 Average

Language of the Test Spoken at Home	Always		Sometimes /Never		Mean Score Difference (Always – Sometimes/Never)
	%	Mean	%	Mean	
Finland	89	571	11	543	28
EU-24 Avg	80	541	20	519	26

Statistically significant mean score differences in **bold**.

Gender

Girls in Finland significantly outperformed boys by 21 score points on the overall reading scale in PIRLS 2011 (Table 6). This was greater than the EU-24 average difference of 12 points.

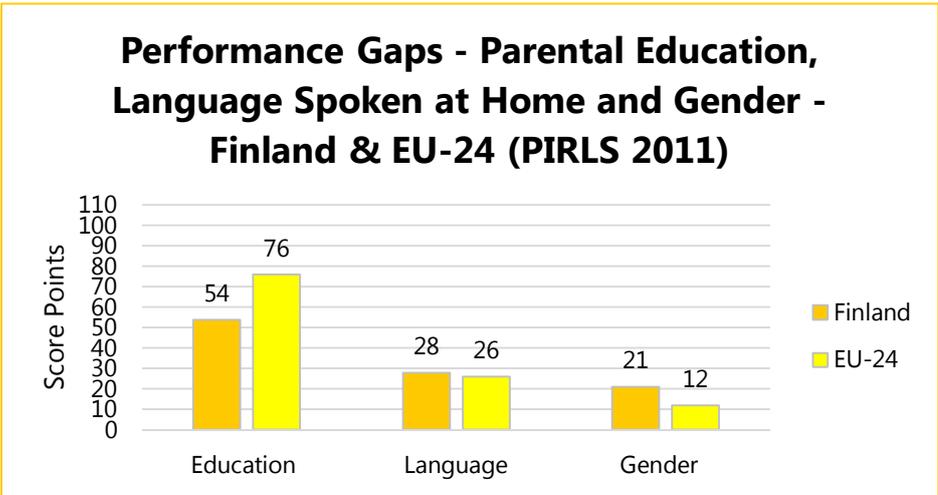
Table 6: Performance by Gender in Finland, PIRLS 2011 Overall Scale

	Finland			EU-24 Average		
	Girls	Boys	Girls-Boys	Girls	Boys	Girls-Boys
2011	578	558	21	541	529	12

Significant differences in **bold**

Performance gaps in Finland and on average across the EU-24 are shown in Figure 2.

Figure 1: Performance Gaps in Finland and on Average across the EU-24 - Primary Level



Education: University – Lower Secondary or lower; Language: Language of test spoken always – sometimes/never; Gender: Girls – Boys.

Attitudes to Reading

In 2011, there was a difference of 62 points between pupils in Finland in the top and bottom quartiles of the Like Reading Scale (Table 7). On average across the EU-24, the difference between students in the top and bottom quarters of the Like Reading scale was 52 points. Hence, there is a relatively stronger relationship between Liking Reading and performance in Finland.

In Finland, 44% of students 'agreed a lot' that they enjoy reading (a component of the Like Reading scale). This is below the EU-24 average of 55%.

Table 7: Mean Overall Reading Scores of Students in the Top and Bottom Quartiles of the PIRLS Like Reading Scale – Finland and EU-24 Average

Like Reading	Overall Reading Score		Difference (Q4-Q1)
	Top Quartile	Bottom Quartile	
Finland	597	535	62
EU-24	563	511	52

Students in Finland in the top quarter of the Confidence in Reading scale achieved a mean score that was some 63 points higher than students in the bottom quarter (Table 8). The average difference across the EU-24 was 80 points, again indicating a relatively weaker relationship between Confidence and performance in Finland.

Table 8: Mean Overall Reading Scores of Students in the Top and Bottom Quartiles of the PIRLS Confidence in Reading Scale – Finland and EU-24 Average

Confidence in Reading	Overall Reading Score		Difference (Q4-Q1)
	Top Quartile	Bottom Quartile	
Finland	597	534	63
EU-24	570	490	80

ToLP – Towards Future Literacy Pedagogies (2006–2009), a research project headed by Professor Minna-Riitta Luukka and funded by Academy of Finland and University of Jyväskylä⁹. One of the aims of this project was to find out what kind of written material teenage pupils read outside school, during their free time. According to the results newspapers and magazines were still quite popular whereas pupils seem to have lost their interest in traditional books. What were read most often, on daily basis, were text messages, emails and other digital media. Teenage girls were more interested in reading than boys. (Luukka, Pöyhönen, Huhta, Taalas, Tarnanen & Keränen 2008.)

Suomen kielen myöhempi hallinta: kouluikäiset ja nuoret aikuiset (2013–) [Mastering Finnish language: school aged children and adolescents], an ongoing research project focusing on writing skills in primary and lower secondary school, headed by Professor Anneli Pajunen in University of Tampere and funded by Kone Foundation. For the present, results from the project are not available.

⁹ See <https://www.jyu.fi/hum/laitokset/solki/en/research/projects/tolp>.

Alkuportaati – The First Steps, Phase I 2006–2011 (pre-primary school – 4th grade), Phase II 2013–2016 (grades 6, 7 and 9), a longitudinal research project in the universities of Jyväskylä, Turku and Eastern Finland and funded by Academy of Finland and Finnish Cultural Foundation¹⁰. Among other things the project includes a rich database of assessment in reading and writing development. So far the Phase I results are available. Researchers found that already in pre-primary schools and on the 1st and 2nd grade in primary school there are differences in motivation, abilities for reading and writing, reading and writing skills between children from a risk group, early readers group and average readers group (Lerikkanen, Poikkeus, Ahonen, Siekkinen, Niemi & Nurmi 2010). Also gender differences in favor of girls were already seen at this age.

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 OECD¹¹ **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 etc.). 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 2010, S. 52).

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

Finland has taken part in the PISA programme since the year 2000. Therefore, average levels and changes in reading proficiency may be described over 12 years' span. Below, the data is described according to certain characteristics of the readers.

¹⁰ See <https://www.jyu.fi/ytk/laitokset/psykologia/en/research/research-areas/motivation-and-learning/projects/first-steps>.

¹¹ See <http://www.pisa.OECD.org>.

Finland scored well above the EU average in PISA print reading in 2012 (Table 9). This has been the case since the first PISA assessment in 2000. Indeed, Finland has consistently ranked among the leading countries in literacy. A slight decline was observed in literacy results from 2000 to 2009 (table 10). The declining trend was confirmed in 2012 with further decline in the average literacy performance. This has generated a lot of discussion on possible causes of the decline and spurred a national literacy programme (Lukuinto, 2015) as well as development plans for the whole of basic education (Ministry of Education and Culture, 2015c). It remains to be seen, whether the current trend continues in the PISA 2015 assessment.

Table 9: Reading performance in PISA 2012

	Mean	S.E.
Finland	524	(2.4)
EU	489	(0.6)

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

Table 10: Trends in reading performance – PISA 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.
Finland	546	(2.6)	536	(2.3)	524	(2.4)	-11	(6.0)	-12	(4.2)	-22	(6.9)
EU	489*	(0.7)	486**	(0.6)	489***	(0.6)	-3*	(5.0)	5**	(2.7)	3*	(6.0)

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

In addition to the high average performance in reading literacy, Finland has shown relatively high level of equity in learning outcomes. The difference between the highest performing and the lowest performing students was significantly smaller than the corresponding EU average, among both boys and girls in 2012 (table 11). Considering the overall high performance of Finnish pupils, this indicates relatively good results even among those scoring at the 10th percentile.

Table 11: Spread of achievement. Difference between 10th and 90th percentiles on the reading scale, all students and by gender – PISA 2012

	Difference 90 th –10 th for all students		Difference 90 th –10 th for girls		Difference 90 th –10 th for boys	
	Score diff.	S.E.	Score diff.	S.E.	Score diff.	S.E.
Finland	240	(4.2)	211	(4.0)	240	(6.3)
EU	251	(1.3)	230	(1.2)	259	(1.6)

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

Compared to the EU average, Finland has a significantly higher percentage of very proficient readers (achieving levels 5 and 6), yet a significantly lower percentage of pupils showing poor performance (below level 2) (Table 12). However, pupils who do not reach level 2 in their reading are predominantly boys – boys are almost four times more likely to face difficulties in reading compared to girls (Table

13). Thus, Finland is one of the countries with substantially high gender gap in reading literacy. With the group of low achievers slowly increasing, national literacy and development programmes include the gender issue as one of their main challenges (Lukuinto, 2015; Ministry of Education and Culture, 2012a).

Table 12: 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.
Finland	11,3	(0.7)	13,5	(0.6)
EU	19,7	(0.2)	7,0	(0.1)

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

Table 13: Trends in the proportion of low performers (below level 2) in reading, all students and by gender – PISA 2000–2012

	Proportion of students below level 2 in reading					
	All students		Girls		Boys	
	%	S.E.	%	S.E.	%	S.E.
2000	7,0	(0.7)	3,2	(0.7)	11,0	(0.9)
2009	8,1	(0.5)	3,2	(0.5)	13,0	(0.9)
2012	11,3	(0.7)	4,6	(0.6)	17,7	(1.1)

Significant differences between assessment cycles in **bold**

4.2.2 Gaps in reading performance

Socio-economic status

In Finland, the difference between the socially privileged and least privileged quarters was below the EU average in 2009 (Table 14). Indeed, Finland was one of the countries in which the strength of the relationship between student performance and their economic, social and cultural background was clearly below the average, explaining only 8 % of the variance in student performance (OECD, 2010b, p. 55). However, according to PISA reports, 62 score points is still equivalent to that of one and a half years of schooling (OECD, 2010a).

Table 14: 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.	S.E.
Finland	61	(3.1)
EU-26	89	(1.1)

Migration

Finland has fairly a small percentage of pupils with immigrant background; less than three percent (Table 15). Pupils with immigrant background in Finland seem to score slightly higher than students with an immigrant background across EU countries on average, yet the score difference between native and immigrant students in Finland (70 points) is much greater than the EU average (38).

Table 15: Percentage of students and reading performance by immigrant status – PISA 2009.

	Native students				Students with immigrant background (first- or second-generation)				Difference in reading performance between native 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.		
Finland	97.4	(0.3)	538	(2.2)	2.6	(0.3)	468	(12.8)	70	(12.7)
EU-26	91.7	(0.02)	490	(0.4)	8.3	(0.02)	452	(6,4)	38	(6.4)

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

Language spoken at home

The percentage of pupils speaking a language other than the test language at home is fairly low in Finland, only 3.7%. Although those pupils score above EU-average score on PISA reading tests (Table 16), the difference between Finnish natives and those speaking another language as their native language remains significantly higher than the EU average.

Table 16: 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	
	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.		
Finland	96.3	(0.3)	538	(2.2)	3.7	(0.3)	477	(7.8)	61	(7.5)
EU-27	86.7	(0.02)	494	(0.4)	13.3	(0.02)	441	(5.4)	54	(5.4)

Gender

Finnish boys and girls achieved higher mean scores than the corresponding EU average scores for boys and girls in all four PISA assessment cycles that have been reported on to date. However, the gap between Finnish girls' and boys' performances (55 score points in 2009) is the highest of all OECD countries (Table 17), equivalent to that of more than a year of schooling (OECD, 2010a). Moreover, the gap in performance between the two groups has slowly been growing as boys' reading performance has decreased more than that of girls (Table 18). Initiatives targeting boys' motivation have been created in order to bridge the gender gap. One example of such interventions is 'Miehet lukemaan' (Challenging men to read) campaign that encourages men to act as reading role models at schools, nursery schools, and home environments (Lukuinto, 2015).

Table 17: Mean reading performance by gender and gender differences – PISA 2009

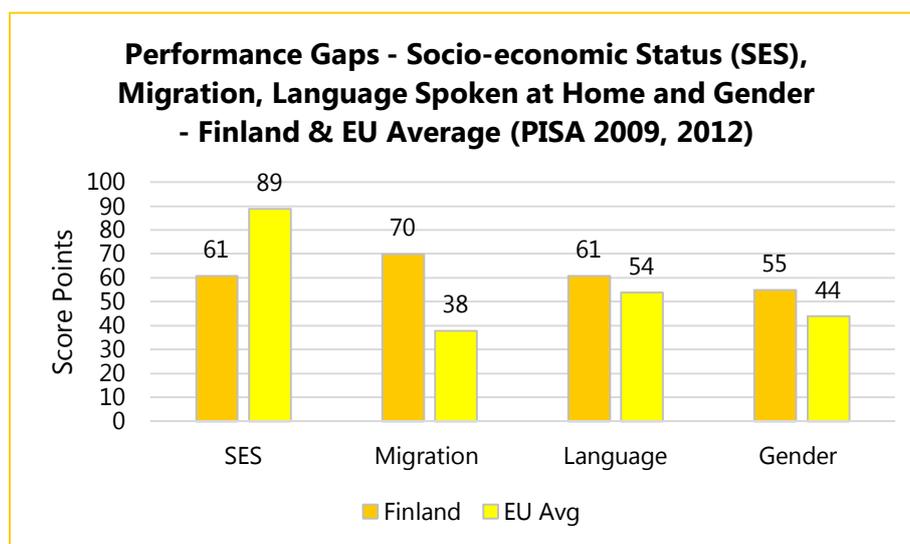
	Gender differences					
	Boys		Girls		Difference (B – G)	
	Mean	S.E.	Mean	S.E.	Score diff.	S.E.
Finland	508	(2.6)	563	(2.4)	-55	(2.3)
EU-26	463	(0.5)	506	(0.4)	-44	(0.5)

Table 18: Trends in reading performance by gender – PISA 2000–2012

	FINLAND				EU			
	Girls		Boys		Girls		Boys	
	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.
2000	571	(2.8)	520	(3.0)	506*	(0.8)	473*	(0.9)
2009	563	(2.4)	508	(2.6)	507**	(0.7)	464**	(0.8)
2012	556	(2.4)	494	(3.2)	511***	(0.6)	468***	(0.8)

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

Figure 2: Performance Gaps in Finland and on Average across EU Countries - Post-Primary Level



SES: Top – Bottom quartile on PISA ESCS scale; Migration: Native – first/second generation immigrants; Language: Speaks language of the PISA test at home – speaks another language; Gender: Girls - Boys

Engagement and metacognition

The PISA study not only assessed 15 year-olds' reading literacy skills. Students were also asked in a questionnaire about their reading attitudes and metacognitive strategies in 2009. More precisely, students' enjoyment of reading and their awareness of efficient reading strategies in order to summarize a text on the one hand, and to understand and remember a text on the other hand, have been investigated. Scores have been computed for these three scales, and relationships between enjoyment of reading, and metacognitive strategies, and PISA reading proficiency scores have been computed. They are reported in the following tables.

In Finland, students who enjoy reading the most (highest quarter) and those who enjoy reading the least (lowest quarter) score above the EU averages of the respective groups (Table 19). Those who report enjoying reading perform better than those who do not. The score difference between the two groups, however, is higher than in the EU on average, indicating a relationship stronger than above between reading enjoyment and reading performance in Finland. It is to be noted, however, that reading enjoyment and performance have a reciprocal relationship: 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, developing their skills even further.

Table 19: 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.	
Finland	480	(2.6)	593	(2.6)	113
EU-26	444	(0.8)	543	(0.8)	99

In both metacognitive scales (Tables 20 and 21), there is a clear relationship between awareness of effective reading strategies and reading performance. Students who know well what kind of reading strategies are effective in understanding and remembering tasks on the one hand, and summarizing tasks on the other hand, have higher reading scores than those students who have limited knowledge of the effective strategies.

On both metacognitive scales Finnish students have above average reading score reflecting the above average overall performance in reading. This applies both to students with limited knowledge and advanced knowledge of the effective reading strategies. On the understanding and remembering scale, the gap between the two groups in Finland remains fairly high (85 score points), yet lower than the EU average. On text summarizing scale, the gap between the two groups (93 score points) is slightly bigger than on the understanding and remembering scale. This is close to the EU average (90 points), and equivalent to more than two years of schooling. These results indicate a strong, below or close to EU average, relationship between reading strategies and reading performance. In Finland the relationship is slightly stronger on the summarizing scale.

Table 20: Mean reading scores between students in the lowest and highest quarter of understanding and remembering strategies – PISA 2009

	Lowest quartile		Highest quartile		Difference
	Mean	S.E.	Mean	S.E.	
Finland	491	(2.9)	576	(2.2)	85
EU average	433	(0.8)	531	(0.8)	98

Table 21: Mean reading scores between students in the lowest and highest quarter of summarizing strategies – PISA 2009

	Lowest quartile		Highest quartile		Difference
	Mean	S.E.	Mean	S.E.	
Finland	488	(2.6)	581	(2.4)	93
EU average	440	(0.8)	530	(0.7)	90

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:

- Creating a more literate environment
- Improving the quality of teaching
- 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.

Several indicators are used to describe the literate home environment of very young children in this report, drawing on data from international sources (PIRLS) that are comparable across countries. It is important to acknowledge that some of the PIRLS data are self-reported and may be biased by social desirability and the ways in which questions are interpreted by parents within countries.

Parental attitudes to reading

PIRLS 2011 used the “Parents Like Reading Scale” according to their parents’ responses to seven statements about reading and how often they read for enjoyment. The figures are presented below with the percentage of students whose parents “like”, “somewhat like” or “do not like” reading” as reported by PIRLS 2011 (Mullis, Martin, Foy & Drucker, 2012, Exhibit 4.4 – Parents Like Reading, p. 120).

- Like: 43.2% (EU average 35.3 %)
- Somewhat like: 48.2% (EU average 52.6 %)
- Do not like: 8.6% (EU average 17.9 %)

(For an overview of European countries see table B1 in Appendix B).

Compared to the EU average, the proportion of pupils who have parents with positive attitudes towards reading is higher. The importance of parental attitudes to reading is shown by the fact that in Finland there are great differences in reading performance at grade 4 between children whose parents like to read (average achievement 582) and those who do not (average achievement 545). (Mullis, Martin, Foy & Drucker, 2012, Exhibit 4.4 – Parents Like Reading, p. 120)

Home Educational Resources

In Finland, six percent of parents reported having only a few home resources for learning – a quarter of the EU Average of 25% (Table 22). Similarly, more students in Finland (43%) than on average across the EU (25%) have many home resources for learning such as a room to study and books in the home. The difference in achievement between pupils in Finland whose parents reported having many home resources and few resources was 58 score points – clearly lower than the corresponding EU-24 average difference (79).

Table 22: Percentages of Students Whose Parents Reported Having Few or Many Home Resources for Learning, and Corresponding Mean Overall Reading Scores – Finland and EU-24 Average

Level of Home Resources	Few Resources		Many Resources		Difference (Many - Few)
	%	Mean Score	%	Mean Score	
Finland	6	540	43	598	58
EU-24	25	495	25	573	79

Statistically significant mean score differences in **bold**.

Number of children's books in the home

PIRLS 2011 offers two sets of data concerning books in the home: The first refers to numbers of children's books in the home (based on reports by parents); the second refers to books in the home (regardless of whether they are children's books or not), as reported by students. A possible discrepancy might be explained by the difference in sources and questions.

The PIRLS 2011 database provides the figures below about the number of children's books in the home based on the report of Finnish parents:

- 0-10: 2.6 % (EU average 11.8%)
- 11-25: 9.6 % (EU average 19.7%)
- 26-50: 28.8 % (EU average 29.4%)
- 51-100: 32.9% (EU average 23.4%)
- >100: 26.1% (EU average 15.7%).

Compared to the EU average (for an overview of European countries see table B2 in Appendix B) the availability of children's books at home in Finland is very high.

Also students reported about the number of books, including children books, in the home. In Finland, 5% of pupils reporting having 10 or fewer books at home, less than half the EU-24 average of 11% (Table 23). More pupils in Finland (16%) reported having over 200 books, than on average across EU countries (12%). (ELINET PIRLS Appendix C, Table E1).

The mean score of pupils in Finland with 10 or fewer books was some 67 points lower than that of pupils with more than 200 books (Table 23). The difference is smaller than the EU-24 average difference of 82.

Table 23: Mean Overall Reading Scores of Students with 0-10 books at Home, and those with More than 200 Books – Finland and EU-24 Average

Books in the Home	None or Few Books (0-10)		More than 200 Books		Mean Score Difference (More than 200 – None or few)
	Percent of Students	Mean Reading Score	Percent of Students	Mean Reading Score	
Finland	5	518	16	585	67
EU-24	11	482	12	563	82

Statistically significant mean score differences in **bold**.

Early Literacy Activity Scale

PIRLS 2011 reports the percentages of students whose parents (often, never or almost never) engaged in literacy-relevant activities with them before the beginning of primary school (Mullis, Martin, Foy & Drucker, 2012, exhibit 4.6 - Early Literacy Activities Before Beginning Primary School, p. 126). Nine activities are considered: reading books, telling stories, singing songs, playing with alphabet toys, talking about things done, talking about things read, playing word games, writing letters or words, reading signs and labels aloud.

The data for Finland in composite score for all these activities are below (for an overview of European countries see table B3 in Appendix C):

- Often: 27.1% (EU average 40.7%)
- Sometimes: 72.0% (EU average 57.4)
- Never or almost never: 0.8% (EU average 1.9%).

The Early Literacy Activity Scale correlates with later reading performance in grade 4. The average reading score in Grade 4 of pupils who often engaged in these activities with their parents before the beginning of primary school was 583, as compared with 564 for pupils who sometimes engaged in these activities. The proportion of those who never or almost never engaged in them was too low to estimate a reading score. (Mullis, Martin, Foy & Drucker, 2012, exhibit 4.6 - Early Literacy Activities Before Beginning Primary School, p. 126.) These data demonstrate the importance of the time devoted to literacy-related activities in early childhood and their association with achievement in grade 4.

While the Early Literacy Activity Scale gives composite score, it is of interest to look at single items. If only the category "often" is considered, the percentage of pupils in Finland whose parents engaged in literacy-related activities with them before the beginning of primary compared with the European average varies by activity:

- read books to them often: 73.4% (EU average 58.4 %)
- told stories to them often: 55.7% (EU average 51.5%)
- sang songs to them often: 46.1% (EU average 50.6%)
- played games involving shapes (toys and puzzles) with them often: 60.8% (EU average 63.5%).

(For more details and an overview of European countries see table B 4-B 7 in Appendix B).

In Finland, parents read to their children clearly more often than on average across EU countries. Also slightly higher proportion of parents tell stories to children than on average. However, Finnish children are not sung to as much as their peers in Europe on average. Also playing with different shapes is slightly less common than in Europe.

Strengths and challenges: The literate environment at home in Finland supports reading development as parents on average have a positive attitude towards reading, educational resources as well as the number of books at home are relatively high, and children are read relatively often before school-age. However, parents' awareness of the role home can have in reading development of the children should be addressed. Particularly, parents should be encouraged to continue to read to their children, also after school start, and they should be encouraged to engage in also other early literacy activities at home, such as verbal interaction and playing games with words and shapes.

5.1.2 Providing a literate environment in school

Challenges: In Finland there is a remarkable decrease in reading for pleasure at the age of 15 from 2000 to 2009. In PISA 2000 about **22 percent** of Finnish students reported that they never read for pleasure outside school. According to PISA 2009, however, **33 percent** of 15-year-olds report not to read for pleasure outside of school. (OECD, 2010b.) The gender difference is pronounced as 47 percent of the boys and 19 percent of the girls report this.

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).

Resources teachers use for teaching reading

According to PIRLS 2011 Encyclopaedia, there is major emphasis on reading for pleasure in the intended language/reading curriculum in Finland (Sulkunen, 2012). Finland is among a group of 9 countries participating in PIRLS 2011 which reported major emphasis on reading for pleasure in the curriculum. Four of the EU-24 countries in PIRLS 2011 reported that reading for pleasure was given a little or no emphasis and 11 countries that it had some emphasis (Mullis, Martin, Foy & Drucker, 2012, Vol.1, exhibit 9, p. 36).

According to the PIRLS 2011, textbooks and workbooks dominate among resources Finnish teachers use for teaching reading. Teachers reported that 86% of Finnish students have teachers that use textbooks as a basis of instruction, and for 53% of students workbooks are the basis of instruction. Children's books are used as a supplement for 77% of students, as are reading series (73%). Moreover 60 % of students in Finland use computer software as a supplement, compared with 47% on average across EU countries, 52 % in Germany and 71% in Denmark (Mullis, Martin, Foy & Drucker, 2012, exh. 8.12, p. 236, EU averages obtained from Table H1 in Appendix C). Similar results have been reported also in lower secondary schools (Luukka et al., 2008).

Availability and use of classroom library

Based on data provided by their teachers, PIRLS shows that 51 % of pupils in Finland were in classrooms which had class libraries – well below the corresponding EU-24 average of 73% (Mullis, Martin, Foy & Drucker, 2012, exh. 8.13, p.240; EU averages from PIRLS 2011 database, s. Table H2 in Appendix C). In Finland, 22 % of students were in classrooms with more than 50 books, about the same as the EU-24 average of 21 % (ibid.).

Strengths and challenges: Finnish national curriculum emphasizes reading for pleasure. Literary texts, such as children's books, are used as a supplement in instruction for great majority of children. Still, textbooks and workbooks dominate in teaching reading albeit they include a variety of reading materials, also excerpts of literary texts. The proportion of students who use computers in reading instruction is above average. Only half of the fourth-graders have an access to a classroom library. Despite the active cooperation between public libraries and schools, classroom libraries should be invested in to guarantee every child an easy access to diverse reading materials.

5.1.3 Providing a digital environment

Digital environment of primary students

A literate environment can also be created by incorporating digital devices into the school environment. According to teachers' reports, 65% of students in Finland have a computer available for reading lessons, compared to the EU-average of 45% (ELINET PIRLS 2011 Appendix Table I6). In Finland, 59% use a computer at least monthly to look up information. The corresponding EU-24 average is 40% (ibid). In Finland, 53% of students are in classrooms whose teachers report that the students use computers to write stories or other texts at least monthly. The corresponding EU-24 average is 33%.

Digital environment of secondary students

Finnish schools feature extremely high levels of infrastructure provision compared to other EU countries. The majority of students enjoy excellent technological equipment and internet connectivity. However, the number of teachers who apply ICT in at least 25% of lessons is below EU average at grade 8 and slightly above at grade 11 general and vocational. The percentage of students that claim to use ICT (that is school computer, own laptop, own mobile phone) in class at least weekly is below the EU average at all levels. (European Commission 2013b.)

Strengths and challenges: Finnish schools have above-average levels of ICT infrastructure. In primary grades, according to PIRLS 2011, Finnish students use computers for information search and writing stories more often than their peers in Europe. However, in lower secondary grades, the use of ICT is below-average. Thus, there is need to improve ICT use for pedagogical purposes, and the Finnish Government has introduced digitalization in education as one of its special investment areas (Ministry of Education and Culture, 2015e). There is also a need to integrate ICT skills and digital literacy into teacher training for all teachers.

5.1.4 The role of public libraries in reading promotion

Public libraries are an important agent in reading promotion. Schools and libraries have a long tradition of collaboration in Finland. The Ministry of Education and Culture lists the following in its Library policy 2015: Libraries support the information and media literacy skills of children and youth; library staff ought to have expertise and training to meet new challenges in our rapidly changing information society, and to be able to provide guidance on information searching and management to students. Library services should be of high quality and meet the needs of inhabitants in their area, in order to diminish a digital gap and marginalization in terms of information society. (Ministry of Education and Culture, 2009.)

Libraries offer various materials, for they wish to serve everybody in their area. Books and printed materials will have a central position in library materials for a long time to come, but libraries are already seeking ways to provide more for children and youth, who are more accustomed to information technology and non-printed materials. The Library policy 2015 states that libraries are successful if they are able to adapt their services and activities according to meet the needs and interests of the youth. New practices can be developed together with the youth by also utilizing the expertise of the library staff. (Ministry of Education and Culture, 2009.)

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

Family literacy programmes

A unique feature of the Finnish social security services is a maternity package which is also the first book gifting programme family encounter. The package is aimed at all expectant mothers, and it contains a children's picture book as well as children's clothes and other necessary items and child-care products.

Programmes for fostering children's and adolescents' reading engagement

The Finnish Reading Centre¹² organizes innovative and successful reading campaigns in Finland. Their basic activity is organizing author visits for instance to schools amounting to over a 1000 events each year. The Finnish Reading Centre also has annual campaigns, the most visible of which is "Lukuviikko" (Reading Week). In the campaign schools, libraries and other organizations organize campaigns, events and other ways of promoting reading during one week each Spring. The Finnish Reading Centre provides free materials and ideas for schools and libraries and oversees the communication and marketing of the week. In April 2015, the Reading Centre initiated a programme called *100 authors, thousands of encounters* to widen the scope of the author visits. In this programme authors have met their readers in several diverse settings: a children's novelist has visited kindergarden parents' meeting, a play writer encouraged adolescent readers to read diverse texts, writer of nonfictional books has told about the Finnish war in the centre for the elderly, writer of food-related books has told about her work to the students of the catering business and comic artist has presented his work to the future graphic designers. The authors visit also in prisons, hospitals and residents' meetings.

In many reading campaigns, libraries have a central role. For instance, in the national Lukuinto-programme (Joy of reading), schools and libraries have worked in pairs to start and consolidate their cooperation. The participants have gathered and improved concrete ideas to take away to their own libraries and schools. For sharing good practices, Lukuinto-programme has organised training events together with Regional State Administrative Agencies. Local and national media have followed Lukuinto events around Finland and the reading status of Finnish children and young people is seen as an important topic in the media.

The President of the Republic **Sauli Niinistö** is the patron of the Lukuinto theme year in 2015. Additionally, Lukuinto ambassadors, authors **Siri Kolu** and **Aleksi Delikouras**, as well as librarian **Agneta Möller-Salmela** visit schools and libraries during the Lukuinto theme year - also virtually. The inspiring blog of Möller-Salmela can be read in Swedish on the Lukuinto website. Ideas tested and produced for cooperation between schools and libraries as well as home can be found at the Lukuinto website.

¹² See see <http://www.lukukeskus.fi/the-finnish-reading-center/>.

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."

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 recognized 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 *Starting Strong III*, 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 Finland is 0.4%. 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 Finland is 10.8. For the other European countries, the OECD (2014 p.324) provides information about the student/teacher ratio in pre-primary schools (for an overview of European countries see table D2 in Appendix B).

Percentage of males among preschool teachers

According to Pordata (2014), 2.8% of the pre-primary teachers in Finland are males. 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

Preschool teachers in Finland must have, at a minimum, a bachelor's degree, that is, a 3-year university degree. Compared to other European countries this is a high level of qualification. Continuing Professional Development is obligatory (Eurostat/Eurydice, 2014, pp. 104–105).

Strengths and challenges: In Finland, every child has a subjective right to early childhood education and care, regardless of the family's situation. Additionally, high quality care has been provided with relatively small expenditure. However, the government has recently suggested a new law in which the subjective right to early childhood education and care is limited to 20 hours per week. Children whose parents are working, whose family circumstances or whose development require would still be entitled to full-day care. Additionally, the government suggests that the ratio of children to teachers is changed from 7 to 8 children per one adult in the groups consisting of children aged 3 or older. (Ministry of Education and Culture, 2015f.) If realized, these changes in legislation will likely affect the groups most in need of special support.

Preschool language and literacy curriculum

The design of the kindergarten 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 (for more information see the frame text of country reports).

In Finland, pre-primary education is compulsory for children of the age of six. Pre-primary is provided both in day-care centres and in schools (The Finnish National Board of Education, 2015a). The national core curriculum for pre-primary education is the same regardless of the setting. The preamble of the curriculum states that "the purpose of pre-primary education is to promote children's growth into humane individuals and ethically responsible members of society by guiding them towards responsible action and compliance with generally accepted rules and towards appreciation for other people." It is also stated that "the core task of pre-primary education is to promote children's favourable growth, development and learning opportunities", and emphasized that "the structure, contents and working methods of a child's day in pre-primary education should create opportunities for peaceful work, play

and other activities, learning and doing together, peace and quiet, as well as for experiencing the joy and meaningfulness of learning” (Finnish National Board of Education, 2010a.)

Fostering the **development of emergent literacy skills** is an important function of pre-school institutions, providing a basis for formal literacy instruction in primary school. In Finland pre-primary education is considered as an educational level which establishes the foundation of children’s literacy development. Children are motivated to participate in emergent literacy activities implemented in meaningful and communicative contexts in order to understand the functions of spoken and written language (Finnish National Board of Education, 2010a, p. 10-11). Also the importance of language as a medium of thought and expression is highlighted in the core curriculum. However the focus is more on the content than on the accuracy of grammar: “With the aid of the concepts that they have learnt, children will analyse their environment and build their own views of the world. Pre-primary education should support the development of children’s thinking, sociability, emotions and interaction skills and their learning processes with the aid of language in particular” (Finnish National Board of Education, 2010a, p. 10)

The national curriculum instructs that children in pre-primary education should be frequently involved in reading and writing activities. They should be aware that print carries the message and be able to grasp written language in accordance with his or her own abilities. They should have been provided with different types of printed materials and have the opportunities to read alone and together with other children or adults (Eurydice, 2011, p. 55-56; Finnish National Board of Education, 2010a, p. 10). The aim is that classroom environment provides children rich linguistic stimuli and enables the implementation of activities which support children’s linguistic development. Furthermore, children’s literacy skills are improved by a learning environment which enhances their exposure to diverse texts and helps them grasp written language and understand the significance of reading. Children in pre-primary education should be aware that print carries the message and be able to grasp written language in accordance with his or her own abilities (Finnish National Board of Education 2010, p. 10–11). During pre-primary education in Finland children should have the opportunities to play with language, use nonsense words and rhymes and be able to break down speech into small units as well as blend syllables or sounds in words (Eurydice, 2011, p. 55).

Improving early language and literacy screening and training

Monitoring development of children

Screening possible physical and cognitive problems that may affect also children’s literacy development begins at early age in Finland. Global child healthcare in Finland aims at diagnosing possible disorders early on, and it is a crucial part of preventive healthcare. Development of a child is always compared to reliable, standardized data describing development of healthy children living in ideal conditions. Law (1326/2010, decree 338/2011) obliges all Finnish municipalities to arrange maternity and child health care services that cover individual and population needs in accordance to state-wide health care plans. The child health care services include monitoring growth of the embryo and supporting health of the pregnant mother, and later on that of the child, following development and well-being of the child, providing dental health services, supporting the wellbeing of parents and other family members, advancing health behaviors of the family in the home environment, assessing and diagnosing a need for special support services or further investigations, and supporting and giving guidance to the child and family in possible treatment (Ministry of Social and Health Services, 2014.)

In regular check-ups, children are examined for the following: height, weight, head circumference, posture (at school age), blood pressure, and most importantly for the literacy development, vision, hearing, neurological-cognitive development and psychosocial development and health. Vision and eye conditions are examined thoroughly already at birth, but also during every medical check-up after that. Hearing and its development is also followed throughout childhood and school age (Ministry of Social and Health Services, 2014.)

Cognitive and neurological development is measured using standardized tests at different ages. The tests aim at diagnosing children who may encounter difficulties in learning, or whose cognitive development may remarkably differ from that of normally developing children. Tests are used for examining early cognitive development, and to assess speech and language development. Risk for reading difficulties may be evaluated from 3,5 years on using LUKIVA-test. Interviews are also an essential part of diagnosing. Treatments usually include some kind of therapy or other interventions, planned in cooperation with medical staff and the family (Puolakanaho, 2011, p. 93-95).

Initiative to develop monitoring letter name knowledge

The writing system of the Finnish language is one of the most consistent writing systems in the world. All letters represent only one phoneme, except for /ŋ/, which is written as the two-letter grapheme (ng). Also, all phonemes have their own letter (grapheme). This symmetrical consistency in both the reading and writing directions makes basic reading skill very easy-to-acquire, providing that the opportunity to access the sounds of letters is optimal. This is the case in Finland where the preschool environments have letters on display and consequently, most children learn the letter names years before school entry. Due to the consistency and the fact that the letter names are chosen to cue efficiently the sounds that they represent, almost half of Finnish-speaking children today learn to read before formal reading instruction is implemented. This instruction takes place after they have entered school at an age when they pass their 7th birthday.

Due to the small size of the units (phonemes) that children are required to differentiate in order to acquire fully transparent (consistent) writing, such as Finnish, i.e. to be able to connect them to the corresponding letter, oral language skills are important. This especially concerns receptive language. The most common cause of difficulties in reading acquisition is compromised speech perception which can be observed from children at risk for dyslexia (due to familial reasons) at a very early age. A very important feature of the Finnish language is one that is well marked in the writing by repetition of a letter. Children, whose readiness to differentiate between long and short phonemes, when faced with a long phoneme in the context of letter repetition, have difficulties in acquiring accurate spelling skill. This also reflects a more general phonological deficit, the easiest marker of which is difficulty in the acquisition of letter names. Children, who are unable to store the letter names within the time expected (4-6 years of age), are those who struggle to learn to read, as shown recently in the Jyväskylä Longitudinal study of Dyslexia (JLD) (Torppa, et al, 2006; 2010).

It might be hypothesized that no child would be left behind if letter name knowledge was monitored among Finnish children and followed by appropriate preventive treatment, which has been developed within the very same project. Ekapeli¹³ is a learning game that is available, free of charge, to all Finnish children and at best, tens of thousands of children play it on a daily basis. Ekapeli helps to make speech perception sufficiently accurate to overcome difficulties in learning basic reading skills.

¹³ See www.lukimat.fi/en.

However, the Longitudinal study of Dyslexia (JLD) reveals that, among children whose difficulties have a familial basis, a delay in receptive language skills tends to compromise children's readiness to be able to fully comprehend written language. Such children must be helped from an early age.

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.

In Finland, there are national curricula for ECEC, for pre-primary education, for basic education and for both general and vocational secondary education. In this report the focus is on basic education. The national curriculum sets the objectives for learning in each subject and describes the content of the subject on a general level. Additionally, the national curriculum includes a description of good performance at the end of grade 6, and final assessment criteria to be used at the end of the comprehensive school. Municipalities responsible for organizing basic education write their own more detailed curricula based on the national one, and based on the municipality's curricula the schools write their own curricula. Thus, in addition to the common core of the curricula there is also flexibility and room for local adaptations. (Finnish National Board of Education, 2014a.) The national curriculum is renewed in 10-year cycles. As a result of the latest renewal process a new national curriculum for the basic education was introduced in December 2014 to be implemented from August 2016 onwards, starting from grades 1–6. Below the curriculum implemented until that time is described. When relevant, also the new curriculum implemented from August 2016 onwards will be described.

Finland has two official languages, Finnish and Swedish. Both languages are official instructional languages throughout all educational stages, and the national curricula in basic education for these two languages are identical. Literacy is a crucial part of language learning, and strong emphasis is given to subjects of Finnish and Swedish, both as first and second languages. There are also minority languages which can be taught as mother tongue: Sami, sign language, and Roma. The speakers of these languages have the right to maintain and develop their own language and culture.

Finland does not have a mandated curriculum for reading (Mullis et al. 2012, Vol.1, exhibit 5, p. 31), though national curriculum guidelines are provided. 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 (Mullis et al. 2012, Vol.1, exhibit 5, p. 30, 31). For all nine grades of basic education in Finland, the national curriculum includes guidelines for teaching reading under the heading "Mother Tongue and Literature". The general objective of the national curriculum for Mother Tongue and Literature is that students become active and responsible communicators and readers. Instruction must be founded on students' linguistic and cultural skills and experience, and must offer opportunities for diversified communication, including reading, through which students can build identity and self-esteem (Sulkunen, 2012, p. 215).

Primary school curricula

The mother tongue and literature curriculum for grades 1-2 in Finland includes the following reading-related aims (Finnish National Board of Education, 2004):

- Learning the basic techniques of reading and writing including practicing letter-sound correspondences, breaking down speech into words, syllables and sounds; word recognition; and spelling at the sound and sentence levels
- Learning to observe oneself as a reader and writer
- Gradually learning the conventions of reading and writing
- Engaging in diversified daily reading and writing
- Learning text-comprehension strategies to develop reading skills

The new mother tongue curriculum for grades 1 to 2 also has a strong emphasis on learning basic reading skills, practicing reading comprehension strategies, observing one's reading, reflecting on meanings of words, sharing reading experiences, and practicing information search (Finnish National Board of Education, 2014a, p. 109-110).

The following skills are included in the curriculum in grades 3-5 (Finnish National Board of Education, 2004):

- Read texts fluently and evaluate themselves as readers
- Practice different ways of reading by applying various comprehension strategies
- Choose reading material appropriate for different purposes
- Search for information from varied sources.
- Read ample amounts of varied literature and learn to select interesting and appropriate reading material in order to preserve a positive attitude to reading.
- Focus on different ways of reading (e.g. skimming, literal reading, inferential reading)
- Apply reading comprehension strategies (e.g., anticipating the content and structure of texts based on illustrations and headings, distinguishing main issues from secondary ones, summarizing, posing questions); and
- Evaluate texts
- Share personal reading experiences.

In the new curriculum, the aims for teaching in grades 3-6 are expressed in a more holistic way but still include many of the same things, such as using reading strategies, evaluating oneself as a reader, analysing and evaluating features of multimodal texts, searching information and evaluating veracity of texts, and reading engagement (Finnish National Board of Education, 2014a, p. 173).

According to the Eurydice (2011) analysis of curriculum documents, comprehension strategies taught during the primary years include: drawing inferences, summarising text, making connections between parts of a text, using background knowledge, and monitoring one's own comprehension skills.

Reading for pleasure

The national curriculum for mother tongue and literature has focused not only on developing students' reading skills but on engagement with reading as well. Thus, the goal has been to support reading for pleasure by, for instance, finding suitable and interesting reading materials for each student in order to establish a personal commitment to read (Finnish National Board of Education, 2004). Also the new curriculum to be implemented from August 2016 has a strong focus on reading engagement from grade 1 onwards (Finnish National Board of Education, 2014a, p. 109). The national curriculum for mother tongue and literature has included and emphasized a wide and modern concept

of texts. This means that authentic real-life texts, also media texts and online texts, are to be used in instruction. Additionally, the individual aspect of text authenticity (Sulkunen & Arffman 2010) has been emphasized since students' own choice for materials relevant and interesting to them has been an option in the instruction. This is consistent with the idea that students' individual needs and interests are the basis for all pedagogical solutions (Finnish National Board of Education, 2004, 2014a). The new curriculum introduces the wide concept of texts also to other school subjects in the framework of multiliteracy (Finnish National Board of Education, 2014a, p. 21).

Indeed, according to PIRLS 2011 Encyclopaedia, there is major emphasis on reading for pleasure in the intended language/ reading curriculum in Finland. Finland is among a group of 9 countries participating in PIRLS 2011 which reported major emphasis on reading for pleasure in the curriculum (Mullis et al. 2012, Vol.1, exhibit 9, p. 36).

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 (European Commission/EACEA/ 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

There is strong emphasis on grapheme-phoneme correspondence during the early years of reading instruction in Finland. The mother tongue and literature curriculum for grades 1-2 in Finland includes learning the basic techniques of reading and writing including practicing letter-sound correspondences, breaking down speech into words, syllables and sounds (Finnish National Board of Education, 2004, 2014a).

According to the Eurydice (2011) analysis of curriculum documents, linking sounds to letters, naming and sounding the letters of the alphabet; using knowledge of letters, sounds and words when reading, drawing the forms of letters, and combining letters, understanding that same sound can have a different spelling are taught mainly during the first or middle cycle of primary education in Finland. Other skills taught mainly during the primary years are progression in recognising words (short and long) and writing words other than a student's name from memory.

In short, it can be said that the curriculum in Finland includes four from five indicators of knowledge of phonics during primary years and two of six indicators for word identification (European Commission/EACEA/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. According to Eurydice (2011, p. 59), these strategies include:

- 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 Eurydice (2011, p. 60), almost all of these strategies are included in the Finnish national curriculum already on the primary grades and also on the lower secondary grades. Indeed, in Finland already at grades 1 to 2 one of the reading-related aims is learning text-comprehension strategies to develop reading skills (Finnish National Board of Education, 2004). In the new curriculum, the same is true as it is stressed that in mother tongue instruction metacognitive skills such as the strategies of interpreting and producing texts are essential (Finnish National Board of Education, 2014a, p. 106). Reading comprehension strategies are further introduced in the curricula for grades 3 to 6, and on lower secondary grades.

Literacy curricula in secondary schools

Literacy has a strong focus in basic education, both in primary grades as described above, and in lower secondary grades (grades 7-9). In the secondary level, the emphasis is clearly stronger in the academic track than on the vocational track. Similar to the primary grades, for grades 7-9 in basic education, guidelines for teaching reading and literacy have mainly been included in the national curriculum for the subject called *mother tongue and literature*. This is the subject most relevant to literacy education. In the new curriculum to be implemented from 2016, producing and interpreting various kinds of texts covers half of the mother tongue curriculum's four aim areas and topics throughout basic education. The national curriculum for mother tongue and literature focuses not only on developing students' reading skills and competences but on engagement with reading as well. Thus, the goal is to find suitable and interesting reading materials for each student in order to establish a personal commitment to read: to enjoy reading and form a life-lasting relationship with reading. (Finnish National Board of Education, 2014a.) This is a necessary foundation for life-long learning of literacy.

More specifically, the new mother tongue curriculum for the grades 7-9 includes the following reading-related aims (Finnish national Board of Education, 2014a, 325-327):

- Developing further strategies and metacognitive skills needed in reading comprehension
- Developing self-assessment skills to identify the developmental needs of one's own reading
- Offering diverse opportunities to select, use, interpret and evaluate multimodal literary, factual and media texts
- Developing critical literacy
- Using and evaluating information from various sources
- Broadening interests in new kinds of texts and genres as well as ways of sharing reading experiences.

Upper secondary schools – both academic and vocational – have their own curricula. Particularly in the academic secondary schools literacy has a strong position. It is also an obligatory subject in the matriculation examination which is a high-stake test for students at the end of the academic upper secondary schools and gives eligibility to universities. The national curriculum for the academic upper secondary school was recently updated (Finnish National Board of Education, 2015b.)

In vocational upper secondary stage, literacy is included in the subject of mother tongue which in turn is part of the common communication studies for all students (despite the field of vocational studies). The communication studies equal to 11 points, and 5 of these are designated to mother tongue

studies. Additionally, students can choose optional courses for up to 3 points. The obligatory courses emphasize interpreting and producing vocational texts and genres, and media education. In vocational schools, mother tongue instruction is highly integrated to the field and topic students are studying. This is reflected e.g. in text selection (Finnish National Board of Education, 2014b.)

Literacy has been and is strongly included in the language curricula. In the new national curriculum for the basic education it comprises a separate chapter in the common part concerning all school subjects as the concept of multiliteracy is introduced as a cross-curricular competence aimed at in all subjects throughout basic education (Finnish National Board of Education, 2014a). Content area literacy has been implicitly in the national curriculum for basic education for quite some time. Several subjects have had literacy related goals in the national curriculum but they have been rather implicit. Thus on the level of educational system, content area literacy has not been an explicit focus.

Multiliteracy has been defined as the competence to interpret, produce and value various kinds of texts in order to understand multiple forms of cultural communication and build one's identity. This means searching, retrieving, integrating, editing, producing, presenting and evaluating information in its many forms in multiple situations and contexts. The new curriculum also stresses the use of learning environments using technology, i.e. digital environments. The notion of multiliteracy includes critical literacy and also takes a step towards disciplinary literacy in all school subjects (Finnish National Board of Education, 2014a, p. 21–22.)

Strengths and challenges: Finnish national curricula for different school and grade levels emphasize literacy in an age-appropriate way. Reading engagement, that is reading for pleasure, and the wide concept of texts is emphasized throughout educational levels. In pre-school level the emphasis is on emergent literacy and play-like activities. In primary school the curriculum focuses on teaching reading using phonics but also reading comprehension strategies are introduced already in grades 1 to 2. In lower secondary grades students are expected to develop further their reading strategies, engage in increasingly diverse literacy activities, and adopt critical literacy, also evaluate texts in information search contexts. In upper secondary level, literacy has a particularly strong focus on academic track but also in vocational curriculum literacy integrated to the field of study has a role. However, there is some evidence, e.g. from PIRLS 2011, that the implemented curriculum does not meet the requirements of the intended one, particularly when it comes to reading strategies. This is something the teacher educators should pay attention to.

Additionally, since the new national curriculum for the basic education introduces explicitly disciplinary literacy in the framework of multiliteracy as a cross-curricular competence which all subjects integrate to their content, teacher training programmes need to integrate literacy as part of all teachers' training, not only to the training of class teachers and mother tongue teachers. Also teachers already in profession need in-service training or other type of professional development in this area. Since there is no national curriculum for the teacher training, individual universities have a responsibility of this but it is difficult to say to what extent disciplinary literacy has been part of the teacher training so far. In nearly all universities, there have been instructional development and small-scale studies at least in the disciplines of Mathematics, Science subjects and History (see e.g. Rantala & van den Berg 2013; Hähkiöniemi, Kauppinen & Tarnanen 2015). Finnish national board of education (FNBE) has already started offering training related to the new curriculum. However, most of the activities offered so far are relatively short, mostly one-day seminars and workshops. There are relatively few longer professional development programmes or trainings related to disciplinary literacy in Finland.

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 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 which might not be valid and may be biased by social desirability.

Also PIRLS 2011 provides information on the frequency with which teachers in Finland engage students in specific reading comprehension activities. The following are the percentages of students in Grade 4 in Finland and on average across the EU-24 who engage in specified comprehension activities 'every day or almost every day' (Appendix C, Table I1):

- Locate information within the text: 49.8% (EU-24 = 65.5%)
- Identify main ideas of what they have read: 39.4% (EU-24 = 55.5%)
- Explain or support their understanding of what they have read: 33.1% (EU-24 = 61.6%)
- Compare what they have read with experiences they have had: 21.0% (EU-24 = 34.7%)
- Compare what they have read with other things they have read: 5.0% (EU-24 = 22.4%)
- Make predictions about what will happen next in the text: 10.0% (EU-24 = 22.4%)
- Make generalisations and inferences: 20.6% (EU-24 = 36.5%)
- Describe the style or structure of the text: 3.0% (EU-24 = 22.7%)
- Determine the author's perspective or intention: 0.0% (EU-24 = 21.0%).

Finland is below the EU-24 average on the frequency with which students engage in activities such as locating information in the text, identifying the main idea and explaining or supporting their understanding *on a daily basis*, even though several of these strategies have been identified as appearing in curriculum documents. A number of important comprehension strategies such as describing the style or structure of a text and determining the author's perspective or intention are implemented daily or almost daily by fewer than 10% of students in Finland. Also, if examined on a weekly basis these reading comprehension strategies are integrated into teaching less than on average (Kupari et al., 2012, p. 97; also Mullis, Martin, Foy & Drucker, 2012) albeit the difference compared to the international average is not always so striking. Nevertheless, there is need to integrate these strategies to the daily school work more than has been the case.

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 Finland, there is a gap of 85 score points – equivalent to more than 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 large difference reflects the close relation between reading proficiency and awareness of efficient reading.

PIRLS also assessed which instructional practices teachers use to **engage students in learning** (for an overview of responses in European countries see Table I2 in Appendix C). PIRLS 2011 demonstrates that students whose teachers used instructional practices to engage students learning in most lessons (items: summarizing the lesson's goals, relating the lesson to students' daily lives, questioning to elicit reasons and explanations, encouraging students to show improvement, praising students for good effort, bringing interesting things to class) had higher scores in reading than those whose teachers

used such practices used in only about half the lessons or less (Mullis, Martin, Foy & Drucker, 2012, exh. 8.6, p.220). In Finland, only one third of the 4th-grade students had teachers that engage students in learning in most lessons (Kupari et al. 2012). This was the second lowest proportion after Denmark (23 %), while international average was 71 %.

Also in PISA 2009, students were asked to report how often teachers engage them into reading activities in class by asking to explain the meaning of a text, asking questions that challenge students, giving enough time to think about their answers, recommending a book to read, encouraging students to express their opinion of the text, helping students relate the stories read to their lives and showing how the information in the text builds on what they already know (OECD, 2010b, p. 92-93). In Finland, the results were close to OECD average only in giving enough time to think about their answers (63 and 60% of students reporting this happens in most or all lessons, respectively) and recommending a book to read (38 and 36 % of students, respectively). All other activities included were used less in Finland than on average in the OECD (Ibid.)

Strengths and challenges: Strength of the Finnish school is that it has succeeded in providing students relatively good level of competence, at least on average. However, instruction has not succeeded in engaging and motivating students in learning to the same extent. Indeed, one of the challenges of the Finnish school is to respond to the low motivation for school work and low level of engagement of students. As a response to the declining trend in learning outcomes and relatively poor motivational results, the Finnish Ministry of Education and Culture launched the national development programme *Basic education of the future – Let's turn the trend!* The overall aim of the project was to provide analysis and recommendations for updating the Finnish basic education to the 21st century. One of the central themes of the project was motivation and teaching (Ministry of Education and Culture 2015c).

Digital literacy part of the curriculum for primary and secondary schools

ICT competence is explicitly mentioned in the new Finnish national curriculum as a cross-curricular topic to be integrated to all school-subjects. Additionally, the cross-curricular competence of multiliteracy has a strong element of digital literacy as it introduces a wide concept of texts and literacy by emphasizing multiple forms of cultural communication and using literacy in its many forms in multiple situations and contexts. (Finnish National Board of Education, 2014a.)

Digital literacy has a strong position also in media literacy which has a long tradition in the national curriculum. The Good Media Literacy Plan is intended to promote media literacy from 2013 to 2016. Finland is one of the few countries that have a governmental media education authority, the MEKU (Department for Media Education and Audiovisual Media) within the Ministry of Education and Culture (Universitat Autònoma de Barcelona, 2004). Additionally, Finnish schools feature extremely high levels of infrastructure provision compared to other EU countries. The majority of students enjoy excellent technological equipment and internet connectivity. However, the number of teachers who apply ICT in at least 25% of lessons is below EU average at grade 8 and slightly above at grade 11 general and vocational. The percentage of students that claim to use ICT (that is school computer, own laptop, own mobile phone) in class at least weekly is below the EU average at all levels. (European Commission 2013b.)

There have been several national efforts to digitalize education, starting from the cross-curricular topic of ICT use in the new national curriculum (Finnish National Board of Education, 2014a, p. 21) to the

targeted state grants for development of digital services and materials as well as for teachers' professional development. Additionally, the Ministry of education and culture funds EduCloud service¹⁴ which aims at supporting teachers and students to use digital learning resources and ICT. The EduCloud services and platform are managed by the EduCloud Alliance consisting of several actors producing digital learning materials. EduCloud Alliance has committed to standardizing digital learning resources (ECA standard) to provide interoperability and thus to enable easy access to digital resources. Through EduCloud platform teachers, students and all those interested can get an easy access to learning materials, pedagogical games, applications and services. The platform offers structures for finding digital learning resources (Bazaar), for sharing ideas and finding examples of using services (GetInspired), for peer support (KnowHow) and single sign on service (Let-me-in). (ECA 2015.)

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 unrecognised, and that students receive the support they need through education that matches their learning needs. This should prevent children leaving school with unrecognised literacy problems (EU High Level Group of Experts on Literacy 2012a, 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, entitling students not meeting them to receive special support (EU High Level Group of Experts on Literacy 2012a, 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.

In Finland, the national curriculum for mother tongue and literature has so far included a description of good performance at the end of grades 2 and 5, as well as assessment criteria to be used at the end of the comprehensive school (Finnish National Board of Education, 2004). The new curriculum includes assessment criteria in the form of description of good performance at the end of grade 6 and at the end of the comprehensive school (Finnish National Board of Education, 2014, p. 47).

Screenings for reading competence to identify struggling readers

Identifying special educational needs is mainly based on early identification. This is a duty of school and teachers, who are required to also work with parents (Finnish National Board of Education, 2014a,

¹⁴ See www.educloudalliance.org.

p. 62–63.) There are several standardized tests available for reading assessment in early school years, but some for youth as well. These include reading and writing tests by Finnish Reading Association (Lukimat, 2014) and screening tests for reading difficulties in youth and adults by Niilo Mäki Institute (Oppimisvaikeus.fi, 2013).

In Finnish primary schools, diagnostic testing of reading is practiced somewhat regularly, with group diagnostic tests administered by class teachers, and individual diagnostic tests administered by special education teachers when needed (see Sulkunen, 2012). Standardised tests are also available to teachers to monitor performance in reading. According to PIRLS 2011, 52% of students in Grade 4 in Finland were in classes in which teachers placed a major emphasis on evaluating students' ongoing work (EU-24 average = 84%), while 52% were in classes where teachers placed a major emphasis on using classroom assessment (EU-24 average = 51%) (ELINET PIRLS 2011 Appendix, Table I8).

In the (lower) secondary grades, there are no screening measures that are obligatory for the whole age group. Screening and assessment of reading skills is up to schools and teachers.

Strengths and challenges: Early identification of struggling students is the cornerstone of instruction. Combined with specialized, and even multi-professional support, most students in the need of support receive it, particularly in primary grades. However, as according to the PISA results the proportion of struggling readers has increased steadily and currently for instance nearly every fifth boy is placed on low levels of literacy at the age of 15, it is evident that students' individual needs have not been successfully met. There are several possible explanations starting from lower resources for support in lower secondary stage to traditional pedagogical solutions that do not engage students into reading and learning. Also the specialized support may have too heavy emphasis on basic reading and cognitive skills leaving aspects related to motivation and self-concept to the margin. In all, there seems to be rather a strong view among Finnish researchers that pedagogical culture in the Finnish school should be developed into more engaging direction (see e.g. Ouakrim-Soivio, Rinkinen & Karjalainen, 2015).

Supporting struggling literacy learners

Number of struggling readers receiving remedial instruction

PIRLS offers some data concerning issues of remedial instruction in primary schools. One question was whether all pupils receive remedial instruction when needed. Teachers estimated that 12.3% of students in fourth grade in Finland are in need of remedial reading instruction. It is also estimated by teachers that 10.3% receive remedial reading instruction (ELINET PIRLS 2011 Appendix, Table K1). Hence, there is a shortfall of 2.0% between those in need and those in receipt. On average across EU-24 countries, 18.1% of students in grade 4 are identified by their teachers as being in need of remedial teaching, while 13.3% are identified as being in receipt of such teaching.

In Finland, 7.9% of students in fourth grade performed at or below the PIRLS low benchmark on overall reading (Appendix C Table A6). Hence, the percentage of students in Finland receiving remedial reading instruction (12.3%) is marginally greater than the percentage of those who performed poorly on PIRLS.

According to Nejdning and Nørgaard Fink (2012), when a child initially encounters reading difficulties, the lowest degree of intervention, support from a remedial teacher in the child's classroom, is preferred. If this is not successful, the student may receive support from a reading specialist at school

level, while continuing to participate in all classroom lessons, if possible. They note that teachers are responsible for recommending special education for individual students. Final decisions on allocation of children to special classes are made by the municipality. However, recent policy has been focusing remedial instruction in the classroom instead of as segregated instruction.

According to Sulkunen (2012), in the case of minor reading difficulties, a classroom teacher may give remedial instruction to the student, or consult with the special education teacher. In the case of more severe or more persistent reading difficulties, a special education teacher steps in to evaluate the nature of the difficulties and provide support in the class or in individual or small-group sessions. Interestingly, in 2009, approximately 9% of students in basic education were transferred to special education and another 23% received part-time special education, with difficulties in reading and writing the main reason for special education at primary level (Sulkunen, 2012).

Kinds of support offered

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.

In Finland, support is tailored in a way that acknowledges every pupil's strengths and weaknesses. Factors related to both the student's abilities and the learning environment, are taken into account (Finnish National Board of Education, 2010b). Support is divided into general, intensified and special extents. General support refers to every pupil's right to receive good quality education that takes their abilities and needs into account. Remedial teaching, with individualized learning tasks and use of time as well as guidance and counseling is a part of this. Remedial teaching can be given either during or outside the regular lessons. (Finnish National Board of Education, 2014a). Intensified support is for students who need continuous support in their instruction. Support measures are tailored specifically for the student with the aims of systematically facilitating the student's learning and preventing problems from accumulating (Finnish National Board of Education, 2010b). Special support refers to special education, which is offered when other support forms fail to adequately enhance the student's learning. It aims to support the student in such a way that they are able to finish their compulsory school and even carry on studying after that (Finnish National Board of Education, 2010b). Special support is based on individualized education plan (Finnish National Board of Education 2014a, p. 69).

School guidance and counseling is another form of support especially for students who have difficulties in their learning or are in danger of dropping out. Every teacher's duty is also to guide students in learning and support their growth and participation (Finnish National Board of Education, 2014a).

Students usually receive support at their own school. It is planned and carried out by teachers. Teachers often work together in planning the support measures, occasionally with the help of multi-professional group (Finnish National Board of Education, 2010b). Also parents are involved in the process (Finnish National Board of Education, 2014a). All education is free of charge in Finland, and support and special needs education is available in every school.

A special group in terms of support is represented by the students with immigrant background. The national core curriculum names four specific minority language and culture groups: Sami, Romany,

sign language and immigrants. Immigrant pupils, who are born in or have moved to Finland, are taught according to the national curriculum – yet their backgrounds and starting points are taken into consideration. A special aim of the education is to support a student’s growth into becoming an active member of both their own as well as the surrounding Finnish cultural and linguistic community. Immigrants will be given Finnish (or Swedish) as Second Language tuition when their language abilities are not on a native level, and also mother language instruction, if that is possible. Immigrant students must be supported in other areas of learning as well, so as to acquire learning abilities equivalent to those of non-immigrants. A learning plan may be formulated for the student, which may serve as a part of cultural integration plan, too. (Finnish National Board of Education, 2014a, p. 90).

PIRLS 2011 provides information about additional staff and availability of support persons for reading. Based on teacher responses to a series of questions in PIRLS 2011, 99.4% of students in Finland are in classes where there is always or sometimes access to specialised professionals to work with students who have reading difficulties, compared with an EU-24 average of 66.7% (Table 24). Seventy-three percent of students in Finland are in classrooms where there is access to a teacher aide with the same frequency, while 3% are in classrooms where there is access to an adult/ parent volunteer. Corresponding EU averages are 47% and 20%, indicating relatively greater access to these resources in Finland.

Table 24: Percentages of Students in Classrooms with Access to Additional Personnel to Work with Children with Reading Difficulties, Finland and EU Average

Access to...	Finland			EU-24 Average		
	Always	Sometimes	Never	Always	Some-times	Never
Specialised professional	19.6	79.8	0.6	24.9	41.8	33.3
Teacher aide	9.2	64.2	26.7	13.2	33.6	53.2
Adult/parent volunteer	0.3	2.7	97.7	2.8	17.5	79.7

Source: Appendix C, Tables K2-K4

According to responses provided by teachers in PIRLS 2011, 96.7% of students in Finland are in classes where the teacher arranges for students falling behind in reading to work with a specialised professional such as a reading professional (Table 25). The corresponding EU average is lower at 55%. Parallel to other support measures, 56.3% of students in Finland are taught by teachers who wait to see if performance improves with maturation, compared with an EU-24 average of 37%. Eighty-two percent of students in Finland are taught by teachers who spend more time working on reading individually with a student who falls behind – an estimate that is marginally below the EU-24 average (90%). Finally, 95% of students in Finland and 97% on average across the EU-24 (97%) are taught by teachers who ask parents to provide additional support to a student who falls behind in reading. The results in tables 24 and 25 show that overall in Finland the emphasis is on support provided by specialized professionals.

Table 25: Percentages of Students in Classrooms Where Teachers Engage in Specified Activities to Support Students Who Begin to Fall Behind in Reading, Finland and EU Average

	Finland (Yes)	EU-24 Average (Yes)
I have students work with a specialised professional	96.7	55.2
I wait to see if performance improves with maturation	56.3	36.6
I spend more time working on reading individually with the student	82.3	90.1
I ask the parents to help the students with reading	94.4	96.9

Source: ELINET PIRLS 2011 Appendix, Tables K5-K8.

Support for struggling readers – a legal right?

According to the Basic Education Act (2010), students in Finland have a right to adequate support for learning within the school. Support may involve remedial teaching, part-time special education, enhanced support according to an individual learning plan, or full-time special education. The national curriculum stresses the importance of early recognition of learning difficulties, provision of early support, different means of support, and cooperation with students' parents (Finnish National Board of Education, 2014a).

Strengths and challenges: In Finland, students have a legal right to adequate support for learning. Schools and teachers have relatively good access to specialized staff, particularly in primary grades, and this resource is often used. Since class and subject teachers also have a central role in providing general and intensified support for students that struggle, teacher education and professional development activities should be developed and offered accordingly. Another challenge is to maintain the adequate level of resources in the current economic situation in which the economy of municipalities organising schooling varies.

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

Entry requirements for Initial Teacher Education

In Finland, the structure of the educational programmes as well as the extent of the qualifications required of teachers are regulated by a decree that stipulates that all teachers shall have a Master's degree (Government Decree on University Degrees, 2004). To be eligible for university, students must have completed a secondary degree, either vocational or academic one. The content of the Initial Teacher Education (ITE) for classroom and subject teachers, however, is exclusively determined on an institutional level. Universities also determine the specific admission criteria for ITE. Usually teacher education admission exams include a written examination based on common literature of the field of study, and an aptitude test. The admission process may include an interview and/ or a group exercise. Depending on the institution and the field of study, students' final examinations and performance in

the upper secondary education may also play a role in the selection process. Different universities have unified their admission exams in recent years, in order to ensure that the entry requirements for teacher education programmes are more consistent. (Eurydice, 2013b).

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

Finland currently requires primary teachers to have a master's degree which takes five years' study. Class teachers major in education. More information about reading teachers' formal education is offered by PIRLS 2011 (Mullis, Martin, Foy & Drucker, 2012, exh. 7.1, p. 188). In Finland, 82% of fourth grade students have teachers who completed a Postgraduate University Degree, 17% had teachers who completed a Bachelor's Degree or equivalent but not a Postgraduate Degree, 0% had teachers who completed post-secondary education but not a Bachelor's Degree, and 2% had teachers with no further than upper secondary education. The EU-24 average for the last category is 6%.

Length of required training of secondary teachers

Finland currently requires secondary teachers to have a master's degree which takes five years' study. Secondary teachers are subject teachers who major in their subject and have pedagogical studies as a minor (Eurydice, 2013b.)

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 Finland, the rationale behind teachers' master's level training at the universities is to give teacher-trainees education that incorporates the latest research of their field with pedagogical studies. This ensures that teachers are able to provide their students with instruction that has a strong research basis but also to develop their own work using research-based knowledge and methods. Teachers should develop competence to act as a researcher and approach their instructional and pedagogical choices analytically and critically (Jakku-Sihvonen 2008). The content of the initial teacher training for classroom and subject teachers is exclusively determined on an institutional level, and thus there is no national data of the extent to which literacy-related topics are included in initial teacher training. Based on unofficial review of class teachers' curricula in different universities, class teacher education requires students to study Finnish as a mother tongue for minimum of 5–8 credits (2–3 % of the degree). Optional courses are also offered, and reading and writing are included in other courses as well.

In PIRLS 2011, primary teachers were asked to indicate the level of emphasis given to a number of topics deemed relevant to teaching literacy in their pre-service teacher education. In PIRLS 2011, teachers reported about their areas of specialisation in their formal education and training (Mullis, Martin, Foy & Drucker, 2012, exh. 7.2, p. 190). In Finland, 24% of the fourth grade students had reading teachers with an educational emphasis on language, 28% had teachers with an emphasis on pedagogy/ teaching reading, and 8% had teachers with an emphasis on reading theory. These figures are below the corresponding EU-24 means. On average across the EU-24, 74% of the fourth grade students had reading teachers with an educational emphasis on language, 59% had teachers with an emphasis on pedagogy/teaching reading, and 30% had teachers with an emphasis on reading (PIRLS 2011 Database).

Strengths and challenges: In Finland, teachers are highly educated at a university level, and they have good knowledge of the most recent research about learning and pedagogy. They also have competencies to develop their teaching using methods and approaches of scientific inquiry. However, according to TALIS 2013 only 8% of the teachers in lower secondary level do research (Taajamo et al., 2014). Additionally, not all teachers who are involved in teaching reading and writing skills in primary or secondary schools have a solid training in literacy. Literacy expertise should become a clear standard for teacher education in all grades and subjects, not only for primary teachers, but also for secondary teachers. Given that the new national curriculum for basic education explicitly introduces disciplinary literacy in the framework of multiliteracy as a cross-curricular competence which all subjects integrate with their content, teacher training programmes need to integrate literacy as part of all teachers' training, not only to the training of class teachers and mother tongue teachers. In addition, teachers already in the profession need in-service training or other type of professional development in this area.

Continuing Professional Development (CPD)

There is no specific legislation governing continuing teacher training after university graduation, the obligation to participate in an in-service training is partly defined in various statutes and partly in collective agreements.

Time frame and quality standards of CPD

Teachers are obliged to participate in an in-service training for one to five days a year according to the relevant statutes and collective agreements. Teachers receive full salary benefits from this obligatory training, but employers have the right to assign all full-time teachers to training and decide on the training programmes. Teachers are also urged to develop their professional skills and expertise following their own motivation. Local authorities support continuing, self-motivated training within their financial limits and with financial support from the State. The primary legal responsibility for in-service teacher training rests with the maintaining body of the educational institution, usually the local authority. This type of in-service training is organized during working hours. (Eurydice, 2013c.)

Continuing teacher education is organized by various types of training centres, e.g. university continuing education units, vocational teacher education colleges, university departments of teacher education, teacher training schools, summer universities and various private organizations. Continuing education is largely based on the logic of supply and demand. The number of applications for continuing education programmes focusing on the priorities of education policy is considerably higher than the capacity for funding such programmes. (Eurydice, 2013c.)

The national OSAAVA programme(2010–2016) supports the education providers in arranging continuing professional development to their education personnel and ensuring staff opportunities to improve their professional competence. The Ministry of Education and Culture assigned 6 million euros for the programme in 2013. The programme is estimated to continue until 2016. The Ministry of Education and Culture, and the Advisory board for professional development of education personnel have set national objectives for the project. The objective of the OSAAVA programme is to activate educational institutions at all education levels, apart from higher education, to develop the competences of their staff. Professional development of the educational staff, including leadership skills in education administration, as well as reaching for those who have received infrequent CPD due distance or other matters, are central to the project.

The programme aims at developing individuals and working communities, and encourages the exchange of good practices. As for individual development, mentoring for new teachers and training for leaders and principals are considered essential. Networking of educational institutions is seen crucial for development of working communities, as it can support the creation of models and action plans that enhance competence development. Working communities are also encouraged to organize CPD focusing on promoting quality assurance and the use of national quality criteria, well-being at work, and the pedagogical use of ICT. Annual national seminars ("OSAAVA Forum") are organized to further allow the exchange of good practice. (Eurydice, 2013c.)

Time spent on professional development related to literacy

No data are available concerning the participation rates of teachers in literacy-related professional development, with one exemption: In PIRLS 2011 teachers were asked how much time they had spent on reading professional development in the past two years before the study. In Finland, 4% of the students had teachers who spent 16 hours or more (EU-24 average: 18%), 28% had teachers who spent some time but less than 16 hours (EU-24 average 53%), and 68% had teachers who spent no time (EU-24 average 29%) (Mullis, Martin, Foy & Drucker, 2012, exh. 7.4, p. 196).

Finnish teachers in general participate in CPD less frequently than on average and use relatively little time for the CPD. According to the TALIS 2013 study, 79% of the Finnish lower secondary school teachers participated in CPD during the year prior to the study which was below the international average (88 %) (Taajamo, Puhakka & Välijärvi 2014, 33). Additionally, they participate less than average in various types of CPD activities, such as courses or workshops, conferences or seminars, in-service training in different organizations and qualification programmes. Furthermore, Finnish teachers participate in networks of teachers clearly less often than on average in TALIS countries. Most strikingly, only a small proportion of Finnish teachers (8%) actually engaged in individual or collaborative research, although their initial training aims to provide them with the required competences to do this.

Strengths and challenges: In recent years, teachers' participation in in-service training has decreased, and there is clearly an urgent need for more systematic and frequent CPD. The Ministry of Education and Culture has started to emphasize teachers' professional development by doubling the funding for this purpose and launching a new development programme. The development programme is organized and funded through the regional authorities and the National Board of Education. In 2014, the Ministry supported teachers' professional development with funding of 20 million euros. (Ministry of Education and Culture 2015d.)

5.2.6 Digital literacy as part of initial teacher education

As described above (under Digital literacy part of the curriculum for primary and secondary schools), ICT competence is explicitly mentioned in the new Finnish national curriculum as a cross-curricular topic to be integrated to all school-subjects. Additionally, the cross-curricular competence of multiliteracy has a strong element of digital literacy as it introduces a wide concept of texts and literacy by emphasizing multiple forms of cultural communication and using literacy in its many forms in multiple situations and contexts. (Finnish National Board of Education, 2014a.) The content of the national curricula should be reflected in class teachers' and subject teachers' initial education since teachers should receive training relevant to their work in implementing the curriculum. For initial teacher education in Finland, there is no national curriculum, and thus determining the status of digital

literacy in teacher education is challenging. A few ICT modules are an obligatory part of teacher training, and optional modules exist as well. One can also specialize in ICT teaching. National strategies, such as the "Information Society Programme, 2007–15", specified that teachers should have outstanding information society skills and that ICT ought to be a part of a multiform teaching at all levels of education (Information Society Programme, 2006). Hence, ICT is seen as an essential skill for teachers. ICT is also promoted as a tool to support students with learning difficulties and those with socially disadvantaged backgrounds, as well as students with disabilities (Eurydice, 2011a).

5.2.7 Improving the quality of literacy teaching for children and adolescents: programmes, initiatives and examples

Improving the quality of schooling and engagement in (literacy) learning

Strength of the Finnish school is that it has succeeded in providing students relatively good level of competence, at least on average. However, instruction has not succeeded in engaging and motivating students in learning to the same extent. Indeed, one of the challenges of the Finnish school is to respond to the low motivation for school work and low level of engagement of students. As a response to the declining trend in learning outcomes and relatively poor motivational results, the Finnish Ministry of education and culture launched the national development programme *Basic education of the future – Let's turn the trend!* The overall aim of the project was to provide analysis and recommendations for updating the Finnish basic education to the 21st century. One of the central themes of the project was motivation and teaching. The report produced by 45 experts based on research review included several proposals for developing the basic education (Ministry of Education and Culture 2015c.) From the perspective of learning and pedagogical culture of the comprehensive school, the report highlights not only concerns about the decline in cognitive learning outcomes (Hautamäki et al., 2015, 39) but also about the poor results in motivation, and student well-being (Harinen et al., 2015, 71). As a solution, the report underlines the need to develop **new pedagogical culture** that would support both collaborative and individual learning. Instead of studying facts in discrete school subjects, learning should be phenomenon-based activity across curriculum in which students have an opportunity for "voice and choice", participation and active role (e.g. Harinen et al., 2015, 75). The new curriculum for basic education takes the first steps to this direction but to change the pedagogical culture of the schools requires time and support from, e.g. teacher training and teachers' professional development provisions.

Also the Lukuinto programme (Joy of Reading) targets the reading motivation and multiliteracy competence of children and youth aged 6–16 years. In the Lukuinto project, schools and libraries work together as pairs to develop novel models and improve existing practices that promote multiliteracy, new reading and writing skills, as well as reading enjoyment. The best practices are gathered to an online material and idea bank, which is directed for teachers, library experts, parents and other educators (Lukuinto, 2015.)

Improving the literacy curriculum and teaching

In the new national curriculum for the basic education, literacy has even a stronger role than before since it has a separate chapter in the common part concerning all school subjects. The concept of multiliteracy is introduced as a cross-curricular competence aimed at in all subjects throughout basic education. Multiliteracy has been defined as the competence to interpret, produce and value various kinds of texts in order to understand multiple forms of cultural communication and build one's

identity. This means searching, retrieving, integrating, editing, producing, presenting and evaluating information in its many forms in multiple situations and contexts. The new curriculum also stresses the use of learning environments using technology, ie. digital environments. The notion of multiliteracy includes critical literacy and also takes a clear step towards disciplinary literacy in all school subjects (Finnish National Board of Education, 2014a, p. 21–22.)

Early identification of and support for children and adolescents with literacy difficulties

In Finnish primary schools ALLU test (Ala-asteen Lukutesti [Reading test for Primary School] Lindeman 2005) is widely used for following the literacy development of the pupils on yearly basis. Another screening battery is Lukilasse 2 (Häyrinen, Serenius-Sirve & Korkman 2013) which includes also evaluation of arithmetic skills for primary school pupils. Both test batteries cover the range from 1st to 6th grade (age range 7–12 years) in primary school. The schools are not obliged to use literacy screening by any law or act and it is not included in any national curriculum. However since literacy skills are the most fundamental skills learnt and used for leaning at school optional screening seems to be an essential part of the programme in most of the primary schools in Finland. Support for children with literacy difficulties is given by special educators in primary and lower secondary schools. Especially for struggling learners and children starting to learn to read a digital gaming environment Ekapeli (GraphoGame; <http://www.lukimat.fi/lukeminen/materiaalit/ekapeli/ekapeli-in-english-1/graphogame>) provides extra training in early reading skills. Ekapeli/GraphoGame can be downloaded free of charge and used both in schools and homes.

In vocational schools and quite often also in gymnasiums (academically oriented upper secondary school) the students are screened for literacy skills during the first semester or year of study. For screening, the test battery Lukivaikkeuksien seulontamenetelmä nuorille ja aikuisille (Screening method of reading and writing difficulties for teenagers and adolescents; Holopainen, Kairaluoma, Nevala, Ahonen & Aro 2004) by Niilo Mäki Institute is used.

In gymnasiums, students with diagnosed reading difficulties can be given extra time in Matriculation Examination or the deficit is taken into account in evaluation of the exams if the student and his/her parents have applied for it (Government Decree on the Matriculation Examination Nov 17th, 2005 / 915, §6).

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 cycles to date, 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 performance 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.

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
(might be more).

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 with in the section, “Improving the quality of teaching”, which is concerned with those who have already developed literacy difficulties (s. 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 25.9 % Finland shows a favourable score.

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). The child poverty rate in Finland (5.3) is among the lowest in Europe.

Mother's education level

The PIRLS 2011 database offers information about mothers' level of education referring to ISCED levels. The figures for Finland are presented below and point to a very low proportion of mothers with no schooling or low level of education, compared with the average figures for the European countries participating in PIRLS (shown in parentheses) (for an overview of European countries see table A3 in Appendix B).

No schooling: 0.1 % (0.6 %)

ISCED 1: primary education: 0.2 % (5.3 %)

ISCED 2: Lower secondary education: 6.3 % (16.7 %)

ISCED 3: Upper secondary education: 30.0 % (36.1 %)

ISCED 4: Post-secondary non-tertiary education: 4.0 % (7.1 %)

ISCED 5B: Tertiary education (first stage) with occupation orientation: 26.4% (9.5 %)

ISCED 5A: Tertiary education (first stage) with academic orientation 14.1% (13.9 %)

BEYOND: 18.2 % (10.1%)

Not applicable: 0.9 % (0.9 %).

Teenage mothers

According to UNICEF (2001) the percentage of teenage mothers is 9.2 for Finland. The range for the European countries participating in ELINET is from 5.5% in Switzerland to 30.8% in United Kingdom (for an overview of European countries see table A4 in Appendix B).

Single parent

According to Eurostat (2012, Figure A 7), in Finland the percentage of children living mainly with a single parent is 3.1%. 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

According to the PISA 2012 study, 3,4% of the students in Finnish schools come from families with immigrant background (OECD, PISA 2012 Database, Fig. I.2.5).

Primary language spoken at home different from language used at school

According to PIRLS 2011 (Mullis, Martin, Foy & Drucker, 2012, exhibit 4.3 - Students Spoke the Language of the Test Before Starting School, p. 118), the proportion of children speaking a different language at home from the one used at school is very low in Finland, at 1.2 % (for an overview of European countries s.see table A7 in Appendix B).

Strengths and challenges: Finland has a low child poverty rate and on average relatively high educational level. So far there have been relative small number of migrant families but the number of these families will increase significantly. Responding to the educational needs of migrants in different ages will be a challenge in the near future.

5.3.2 Support for children with special needs

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 was very low in Finland with 3.6%. 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 in Finland is very low with 0.8% (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 4.9% (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

According to Näkövammarekisteri (Register for visually impaired) there were 18 388 visually impaired people in Finland in 2013, and 728 (4.0 %) of them belonged to the age group of 0–17 years (Ojamo 2014, Table 3, pp. 19–20), The number of the young visually impaired people equals 0.01 % of the whole population in Finland.

The number of children born deaf or hard-of-hearing has stayed on the level of 50–60 children per year for several decades now. Vast majority (90 %) of these children are born to hearing families (Sume, 2010.)

Both visually and auditory impaired children are among those who have a right for an extended period of compulsory school attendance, starting from the preschool at the age of 6. Otherwise the compulsory school attendance starts from the first grade, the year the child turns 7. The decision on whether a visually or auditory impaired child needs extension in school attendance is made by the

municipality authorities and it is always based on psychological or medical certificate. (Finnish National Board of Education 2015c.)

The rapid development in cochlear implant technology and the fact that most deaf or severely hard-of-hearing children are implanted already in early age has changed the education of these children. Most of them go to main stream schools instead of special schools (Selin-Grönlund, Rainò & Martikainen 2014, p. 12) and are no longer in the need of extended compulsory school attendance.

5.3.3 Promoting preschool attendance, especially among disadvantaged children

The benefits of attending preschool institutions have been highlighted in many studies. The duration of attendance is associated with greater academic improvement (Mullis et al. 2012).

PIRLS 2011 (Mullis, Martin, Foy & Drucker, 2012, Exhibit 4.7, p. 128) provides information about the relationship between the length of preschool education attendance and average reading score in grade 4. These are the figures:

- 3 years and more: 46% (average reading score 569)
- Between 1 and 3 years: 31% (average reading score 566)
- 1 year or less: 21% (average reading score 572)
- Did not attend: 1%

(For an overview of European countries s. table C3 in Appendix B).

Finland is the only country participating in PIRLS 2011 where there is no correlation between children's reading performance in grade 4 and the length of preschool education attendance.

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.

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

Children in Finland with an immigrant background may participate in pre-primary education that has been organized in conjunction with other pre-primary education, in the form of instruction preparing for basic education or as a combination of these (Finnish National Board of Education, 2010a, p. 47). These children are not a homogeneous group but differ in terms of linguistic and cultural origin, the reason for immigration and the duration of residence. According to the national curriculum for the pre-primary education, children's backgrounds will be the starting point of instruction but in general instruction will comply with the objectives of pre-primary education. In addition, there are specific objectives for immigrant education, for instance pre-primary education needs to support development of the Finnish/ Swedish language and, that of the children's own native language and the opportunity to grow into two cultures. Supporting children's own culture aims at children becoming aware of the cultural heritage of their own ethnic group and learning to appreciate it.

Preparing education for children and teenagers who have only recently arrived at Finland can also be provided in conjunction of primary schools and lower secondary schools (Finnish National Board of Education 2009). However, since it is not obligatory to organize such education, the local authorities in each municipality and town can decide on whether to start a group of preparing education in schools. The preparatory instruction aims at basic skills in Finnish/ Swedish language so that the child is able to attend main stream education after 6–12 months of preparatory instruction (the minimum length of instruction is 900 hours for children of 6–10 years of age and 1000 hours for older pupils). The instruction also provides knowledge of Finland, starts to integrate the children in Finnish society and culture as well as introduces the children to Finnish school system.

According to the national curriculum, instruction of Finnish/ Swedish as a second language aims at children achieving functional skills in the Finnish/ Swedish language during basic education (Finnish National Board of Education, 2010a, p. 48). Pre-primary is one of the first steps in this process. In pre-primary education, children have the opportunity to study Finnish/ Swedish both under guidance and in natural communication situations with Finnish/ Swedish-speaking adults and children. Additionally, pre-primary education aims at integrating children into Finnish culture. This instruction and the learning processes of children's native language are to be interwoven with all areas of pre-primary education. The objectives of children's native language instruction, in turn, include development of thinking, the sound growth of self-esteem and personality and consolidation of practical language skills. Children's increasing wealth and courage of linguistic expression and the expression of their own views and opinions will play a prominent role in this respect. Key materials include either narrated or written fairy tales and story traditions.

Immigrant children have a right to similar support in case of e.g. learning disabilities than other children. Like in basic education, also in pre-primary education support forms a continuum from general to intensified and special support given primarily in the child's own pre-primary groups and in cooperation with parents and multi-professional group when needed (Finnish National Board of Education, 2010a, p. 17).

When the pupils are already integrated in the main stream classes, they still have an opportunity to attend Finnish as a second language instruction in case the school provides such instruction. In bigger cities and in the areas of larger immigration population (e.g. in Eastern Finland with large Russian immigrant population) this is usually provided but in small municipalities or schools where there are only few immigrant pupil separate Finnish as a second language classes seldom exist. The same can be said about home language instruction, which is usually arranged only in big schools with relatively big proportion of immigrant pupils having the same home language. The home language instruction is important for preserving the ethnic identity and promoting the literacy skills also in children's mother tongue which in turn is benefitting reading skills also in the second language.

Strengths and challenges: Support for both mother tongue and language of the school is one of the strengths in supporting students whose home language is not the language of the school in Finland. Among the challenges is the length of preparing education which does not always allow the proficiency in second language (Finnish/ Swedish) to become high enough for mainstream class education. Another challenge is that municipalities can themselves decide whether such education is provided for recently arrived immigrant children.

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 basic functional literacy.

According to Eurostat (2015), the rate of early school leavers (ESL) in Finland was 9.3 % in 2013 – slightly higher than the 8.9% of the preceding year. A target value has been set for 2020, when the rate of ESLs should be down to 8%.

Approximately 70% of the students (69,8%) aged 15-24 years (ISCED 1–6) were in some form of education in 2011, which was above the EU-27 average (61.9%). A slight decrease may be observed: in 2012 the rate was 69.0%.

5.3.7 Addressing the gender gap among adolescents

The national curriculum (Finnish National Board of Education, 2014a, p. 13, 16) states that education is to be developed based on the principle of equity, and it should advance equality in the society, including also the equality of the two genders. Teachers are eligible to choose working approaches used in class. However, gender differences between boys and girls must be taken into account when choosing working approaches. (Finnish National Board of Education 2014a, p. 107).

Ministry of Education and Culture has implemented initiatives aiming at, among other goals, narrowing the gender gap. Lukuinto (Joy of Reading) project is aimed at children and youth aged 6–16, their teachers and library staff. The main objectives include strengthening youth's reading and writing abilities and promoting reading in free time (Ministry of Education and Culture, 2012a). Another project called Tulevaisuuden peruskoulu (Compulsory school of the future) is directed towards improving schools in Finland, narrowing the gender gap in learning and enhancing pupils' school motivation (Ouakrim-Soivio, Rinkinen & Karjalainen, 2015).

Reducing the gender gap is also mentioned in the development plan of Finnish education (Education and Research 2011–2016) – the stated aim to halve the gap between now and 2020. (Ministry of Education and Culture, 2012b).

5.3.8 Increasing participation, inclusion and equity for children and adolescents: programmes, initiatives and examples

Policy measures to prevent segregation of low SES and high SES students

In Finland, equity in education is considered a priority. Hence, financial support is allocated to schools 'that work in a challenging environment' and who have lower academic performance. Schools in environments of high unemployment and low education rates as well as schools where number of immigrants is high have been supported in particular. (Ministry of education and culture, 2013a). Some cities also offer this kind of 'positive discrimination' grant for schools in challenging environments - Helsinki and Espoo to name few (Ministry of Education and Culture, 2013b).

In addition, the Finnish development plan for education (Education and Research 2011–2016) underlines the importance of reducing educational differences due different living areas and social or ethnic background, the goal being diminishing of these to less than half from the current situation by 2020. (Ministry of Education and Culture, 2012b).

One example of policy aiming preventing segregation and advancing equity is the limitations regarding free choice of school. As a rule, education is provided in neighbourhood schools or other suitable places which make school travel as short and safe as possible. (Ministry of Education and Culture, 2013a, 2013b.)

Family literacy programmes for migrant parents

Let's Read Together Network supports immigrant women in integrating into Finnish Society. A network of Finnish women volunteers offer tuition in literacy and the Finnish language to immigrant women in various locations all over Finland. At the moment, there are some eighty Let's Read Together study groups. Network started its activities in 2004, and developed into a national project in 2007. Network consists of more than 400 volunteer teachers, and currently there are over 1600 students. The Finnish Federation of University Women is responsible for the Network in partnership with Zonta International District 20 and UN Women Finland. The idea of the activity is to complement the education provided by the authorities. The number of immigrants is rapidly increasing, and some of the people coming from war zones have not had the opportunity to go to school in years. Many of the illiterate immigrants are women. Some of these women may have participated in language courses but still their skills are inadequate for training and work. The Let's Read Together Network offers an informal context for language and literacy learning. (Let's Read Together, 2015.)

Capable parent -project in the city of Vantaa focuses on immigrants who need special support. The project offers Finnish language and literacy instruction to parents who care their children at home. Additionally, the project organizes joint activities to parents and children in order to support parenthood and adults' integration into the Finnish society by providing them information about the Finnish society, developing everyday skills and encouraging them to use Finnish in everyday life. A group of 12 mothers and their children meet twice a week, and the first meeting is allocated to the formal language instruction with organized childcare. The second meeting is dedicated to mother-and-child-activities, such as field trips, singing and spending free time together. The objective of the project is to advance participants' basic vocabulary and functional communication and literacy skills. The participants speak 9 different languages as mother tongue, and the time they have been in Finland varies. (Intke-Hernandez, 2015.)

Policies to prevent early school leaving

Policies preventing early school leaving include for instance measures to further promote the education of immigrant children, including strengthening reception classes and increasing language training. These appear in the Finnish 2011–2016 Development Plan for Education and Research. (Eurydice, 2013a.)

Flexibility of vocational qualifications at upper secondary level will be increased through a four-year programme (2013–2016) which aims, e.g. to diversify opportunities by allowing students to take modules from other vocational qualifications (including further vocational qualifications and specialist vocational qualifications) or to undertake polytechnic degrees in existing subject areas. The programme will also enhance the development of guidance counselling and pedagogical solutions to

help students complete their studies. The goal of the programme is to allow students to create individual learning paths and increase their motivation for graduating as well give education providers more opportunities to meet the demands of the regional and local economies (Eurydice, 2013a, p. 25).

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