



LITERACY IN SWEDEN

COUNTRY REPORT

CHILDREN AND ADOLESCENTS

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1 Introduction

This report on the state of literacy in Sweden 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

Sweden participated in IEA's PIRLS (4th graders reading comprehension) in 2001, 2006 and 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, and to compare relative reading levels of proficiencies for different age groups.

Sweden performed above the EU average in PIRLS 2011 (542 vs 535 EU-average) and somewhat below in PISA 2012 (483 vs 489 EU average). The performance in PIRLS gradually decreased between 2001 and 2006 (-12 score points) and by 8 score-points between 2006 and 2011. So, between the first and the third cycles of PIRLS, a decrease of almost 20 score points was observed. The decrease was higher among girls (-23) than among boys (-15). Similarly, in PISA, where Sweden performed well above the EU average score in 2000 (516 vs 489), it showed a gradual decrease, reaching a significant difference of 33 score points between 2000 and 2012, namely the equivalent of nearly one year of schooling.

In PISA, the decrease in reading performance observed between 2000 and 2012 is stronger among boys (-41 score points) than among girls (-27 score points). The trend is different in EU countries on average: between 2000 and 2012, the girls' performance increased by 5 score points while the boys' decreased by the same value.

In PIRLS 2011, 14.7% of pupils in Sweden can be considered as low-performing readers, which is below the EU countries on average (20%); in PISA, this proportion reached 22.7%, above the EU 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 continuously increased through the three cycles of PIRLS (from 11.5% to 14.7%) and increased in PISA, from 12.6% to 22.7% between 2000 and 2012, becoming higher than the EU average percentage (20%). This increase was much higher among boys than among girls (+14.5% vs +6.2%). In 2012, 31% of boys were below level 2, while 14% of girls were below Level 2.

The proportion of top-performing readers was equal to the EU average (9%) in PIRLS 2011 and 8% in PISA 2012 (vs 7% on average across EU countries).

The gap according to the pupils' socioeconomic background was lower than the EU average in PIRLS (61 vs 76 on average), and close to the European average in PISA (91 vs 89 on average). However, the indices of socioeconomic background are not the same in PIRLS and PISA, so the comparison should be taken with caution.

In PISA 2009, the gap between native students and students with a migrant background was higher than in EU countries on average (66 vs 38 EU-average). This difference was equivalent to one-and-a half years of schooling. In PIRLS, the mean score difference between those who always spoke the language of the test at home, and those who sometimes or never did so was 31 score points, which is marginally greater than the corresponding EU-average difference (31 vs 26 in EU). Similarly, in PISA, this gap was higher than the EU average (72 vs 54), and equivalent to almost two years of schooling.

In Sweden, the gender gap (in favour of girls) was higher than the corresponding EU average differences both in PIRLS (14 vs 12 on average) and in PISA (46 vs 44 on average). Whereas the gender difference in Sweden tended to decrease since 2001 in PIRLS, it tended to increase over time in PISA:

from 37 to 51 points-score. For the last cycle of the study, this difference according to gender was equivalent of more than one year of schooling.

In conclusion, Sweden's performance in PIRLS overall reading substantially decreased between 2001 and 2011, and even more drastically among 15 year-olds. Whereas Sweden performed significantly above the EU average at the first cycle of the study, it dropped below the EU average in 2012. The trends are unusual: the decrease in PIRLS was higher among girls than among boys. The reverse was observed in PISA where twice as many 15-year old boys performed poorly (i.e., below Level 2) between 2000 and 2012.

The proportion of low-performing readers increased in both studies. Nevertheless, in PIRLS, it remains under the EU average and Sweden shows a proportion of top performers in reading similar to the EU average. The spread of achievement (gap between low and top performing readers) is lower than in the EU on average in PIRLS and higher in PISA. The gap according to socioeconomic status is lower in Sweden than in the EU on average, but the gap according to migration and language spoken at home is higher.

As far as adults are concerned, Sweden performed above the EU average in PIAAC (279 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 Sweden than the EU-17-Average (123 vs 117 on average). The proportion of adults performing at or below level 1 in Sweden was 13%, less than the EU-17 average (16.4%).

Females performed somewhat less well than males (278 vs 281) and the gender gap in favour of males was slightly higher in Sweden (3 score points) than in the EU on average (2 score points), which is in contrast with what was observed in younger generations where the gender gap was slightly above the EU average and was in favour of girls. The gap according to parents' level of education was lower than in the EU countries on average (33 vs 41), reflecting the same trend as in PIRLS. The reverse was observed for the gap according to the language spoken at home (53 vs 28 in EU); in Sweden, there were twice as many adults reporting that the test language is *not* their native language than on average across EU-17 countries. They achieved significantly less well on the PIAAC test than those who reported that their native language was the same as the test language (236 vs. 289).

According to PIRLS, proportionately more parents in Sweden have a university education, than on average across the EU-24. Only six percent of pupils in Sweden had parents whose highest level of education was lower secondary or below which is substantially less than the EU average of 18%. In addition, the percentages with university education or higher (43%) is above the EU-24 average of 30%. The level of parental education correlates with student achievement. In Sweden children whose parents attended University or Higher achieved a mean score (568) that was some 61 points higher than students whose parents completed Lower Secondary or below (507).

Furthermore, in relation to the availability of books in the home and other educational resources Sweden has fewer students with access to ten or fewer books in the home and higher percentages of students with access to 200 or more books compared with the EU-24 averages. The association between number of books at home and reading achievement in Sweden is stronger than on average across the EU-24.

National curricula only place some emphasis on reading for pleasure. This may explain why the percentage of classrooms with libraries is lower than the EU-24 averages and that there is a small

percentage of classroom libraries with 50 or more books available. Given that reading for pleasure is associated with higher achievement, there is a need to update the quantity and quality of classroom libraries if schools are to be supported to encourage reading for pleasure. This is important as it may be a contributing factor in the decline of Sweden's average achievement score between PIRLS 2001, 2006 and 2011.

In relation to classroom instruction, there is a relatively strong emphasis on using children's books for instruction (54%) compared to the EU average (29%) and this is in line with Sweden's rich literary tradition. This contradicts the findings in relation to the classroom libraries noted above.

There are high levels of access to computers in classrooms in Sweden (73% are in classes with computers available for student use during reading lessons) compared to the EU-24 average of 45%. Almost twice as many use computers for writing stories (65%) compared to the EU-24 average (33%) while 64% use computers to look up information compared to the EU-24 average of 39%. However, there is no difference in achievement between scores of children who have access to computers and those who haven't. It may be that teachers need further support in how to integrate technology effectively into reading instruction. This is related to the low emphasis on higher-order comprehension strategies. Data provided by teachers in PIRLS 2011 suggest that students are not required to use higher-level text comprehension strategies as frequently as on average across EU countries. For example, the frequency of making predictions, drawing inferences, making connections to other texts read, describing the style or structure of the text and the author's intentions occur less than 10% of the time in Swedish classrooms compared to an EU-24 range of 22% to 36%.

The time devoted to instruction (849 hours) is the same as the EU-24 average. However, this data should be treated with caution, as the data represent just 50% to less than 70% of students. In disaggregating the hours, 223 hours is spent on language instruction which is below the EU average (241) and 75 hours is spent on reading instruction which is above the EU average of 68 hours.

Based on a scale summarising instructional practices to engage learning, 47% of students were taught by teachers using the strategies in most lessons. The corresponding EU-24 average was 70%. These findings, together with those based on frequency of student opportunities to engage in reading comprehension strategies, suggest lower levels of reading engagement in classrooms in Sweden and less focus placed on higher-order thinking skills by teachers.

In relation to initial teacher education programmes, there is a low emphasis on assessment of reading. There is no emphasis on it (49%) compared to the EU-24 average of 22% while it is an area of emphasis for 13% compared to the EU-24 figure of 27%. Remedial reading does not feature at all for 35% compared to the EU-24 average of 24% and it is an area of emphasis for 13% compared to 22% EU-24 average.

Compared to EU-24 average, there is a relatively high engagement in CPD in Sweden. Almost one third of students (32%) have teachers who spent 16 hours or more on CPD compared to the EU-24 average of 18%, a further 44% who had spent between 6 and 16 hours on CPD while 23% had teachers who spent no time on CPD in the preceding 2 years compared to the EU-24 average 29% (Mullis et al. 2012a, exh. 7.4, p. 196).

Areas for Development

- Performance in Sweden on international assessments such as PIRLS and PISA has declined significantly in recent years and there have been increases in the proportions of students who perform poorly. The reasons for this are not obvious. However, there is an urgent need to address decreasing performance. A number of countries have put National Literacy Strategies in place to address declining performance. Sweden could consider implementing a multi-pronged strategy that addresses teacher development, curriculum, assessment and digital learning, with specific targets to improve performance, by, for example, 2020.
- Sweden is well-positioned, compared with other EU countries (especially low-performing ones) to tackle low performance. For example, high proportions of parents have attained a university degree, students' homes are well equipped with books and other educational resources. Schools also seem well resourced, with greater access to computers during reading lessons than on average across EU countries. There is a need to build on these advantages in tackling low performance. There is also a need to address the development of classroom libraries, since, according to PIRLS 2011, fewer students in Sweden have classroom libraries than on average across the EU, and fewer are in classrooms in which the library has at least 50 books.
- There appear to be gaps in curriculum relating to the relative emphasis placed on reading for pleasure at primary level, and on teaching reading comprehension strategies at primary and post-primary levels. There needs to be a greater awareness of the importance of ensuring that children read for pleasure. There is also a need to place more emphasis on teaching reading comprehension strategies in Swedish classrooms.

3 Literacy Performance Data for Children and Adolescents

3.1 Performance Data for Primary Children

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

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

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

For all PIRLS data used in this report, detailed tables with data for all participating countries in ELINET are provided, together with the EU averages (see Appendix C for PIRLS 2011 data, and Appendix D for PIRLS 2001 and PIRLS 2006 data).

3.1.1 Performance and variation in reading, including proportion of low and high performing readers

Students in Sweden achieved an overall mean reading score of 542 in PIRLS 2011 (Table 1). This is significantly above the EU-24 average of 535. Pupils in Sweden performed better on Literary texts (547) than on Informational texts (537). They performed at about the same level on Retrieve & Infer (543) as on Interpret, Integrate & Evaluate (540) (Appendix Tables A2-A5).

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

	Overall Reading –Mean Score
Sweden	542
EU-24	535

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

In Sweden, 14% of students performed at or below the Low benchmark on overall reading (Table 25.2). This is lower than the EU average of 20%. Though Sweden is behind countries such as Finland (8%), the Netherlands (10%) and Croatia (10%) in terms of the proportion of pupils performing at or below the

Low benchmark, Sweden's standing relative to most EU countries on this indicator is positive (see Appendix Table A.6). In Sweden, 9% of pupils achieve at the Advanced benchmark. This is the same as the EU average of 9%.

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

	Below 400	400-475 Low	475-550 Intermediate	550-625 High	Above 625 Advanced
Sweden	2	12	38	38	9
EU-24 Avg.	5	15	36	35	9

Sweden's standard deviation of 65 is 5 points below the EU-24 average indicating a slightly smaller spread of achievement (Table 3). The difference between the scores of students at the 10th and 90th percentiles in Sweden – 165 points – is 15 points less than the corresponding EU-24 average of 180, again confirming a slightly narrower spread.

Table 3: Spread of Achievement – Standard Deviation, 10th, 90th Percentiles, and Difference between 10th and 90th Percentiles on Overall Reading – Sweden and EU-24 Average

	Standard Deviation	10 th Percentile	90 th Percentile	90 th -10 th
Sweden	65	457	622	165
EU Avg	70	441	621	180

Performance on PIRLS in Sweden dropped by 19 points between 2001 and 2011, whereas across the EU-24, performance rose by 1 point (Table 4). Performance in Sweden fell by 12 points between 2001 and 2006 and by 8 points between 2006 and 2011.

Table 4: Trends in Performance 2001-2011 (Overall Scale) – Sweden and EU-24

	2001	2006	Change (2006-2001)	2006	2011	Change (2011-2006)	2001	2011	Change (2011-2001)
Sweden	561	549	-12	549	542	-7	561	542	-19
EU Countries	534	534	0	534	535	1	534	535	1

Significant differences in **bold**

3.1.2 Gaps in reading

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

Parent's educational achievement

Students in Sweden whose parents attended University or Higher achieved a mean score (568) that was some 61 points higher than students whose parents completed Lower Secondary or below (507) (Table 5). The average difference across the EU-24 was 76 points. Proportionately more parents in Sweden (43%) had a university education, than on average across the EU-24 (30%).

Table 5: Percentages of Parents Whose Highest Level of Education was Lower Secondary, and Percentages who Finished University or Higher – Sweden and EU-24 Average

Level of Education	Lower Secondary or Below		University or Higher		Difference (Univ or Higher – Lower Sec)
	%	Mean	%	Mean	
Sweden	6	507	43	568	61
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 Sweden, 80% of pupils reported that they always spoke the language of the PIRLS reading test at home – the same as the corresponding EU-24 Average (80). Twenty percent “sometimes” or “never” spoke a language other than the test language. The difference in achievement between pupils in Sweden reporting that they always or sometimes/never spoke the language of the test was 31 score points – marginally greater than the corresponding EU-24 average difference (26).

Table 6: Percentages of Students Reporting that They Always or Sometimes / Never Spoke the Language of the PIRLS test at Home, and Associated Mean Score Differences – Sweden and EU-24 Average

Language of the Test Spoken at Home	Always		Sometimes /Never		Mean Score Difference (Always – Sometimes/Never)
	%	Mean	%	Mean	
Sweden	80	548	20	517	31
EU-24 Avg	80	541	20	519	26

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

Gender

Girls in Sweden achieved a mean score on overall reading that was higher than boys by 14 points in 2011. This was about the same as the EU-24 average difference of 12 points and reflects a reduction in the gender gap since 2001 (22 points) and 2006 (18 points) (Table 7).

Table 7: Trends in Performance by Gender 2001-2011 (Overall Scale) – Sweden and EU-24 Average

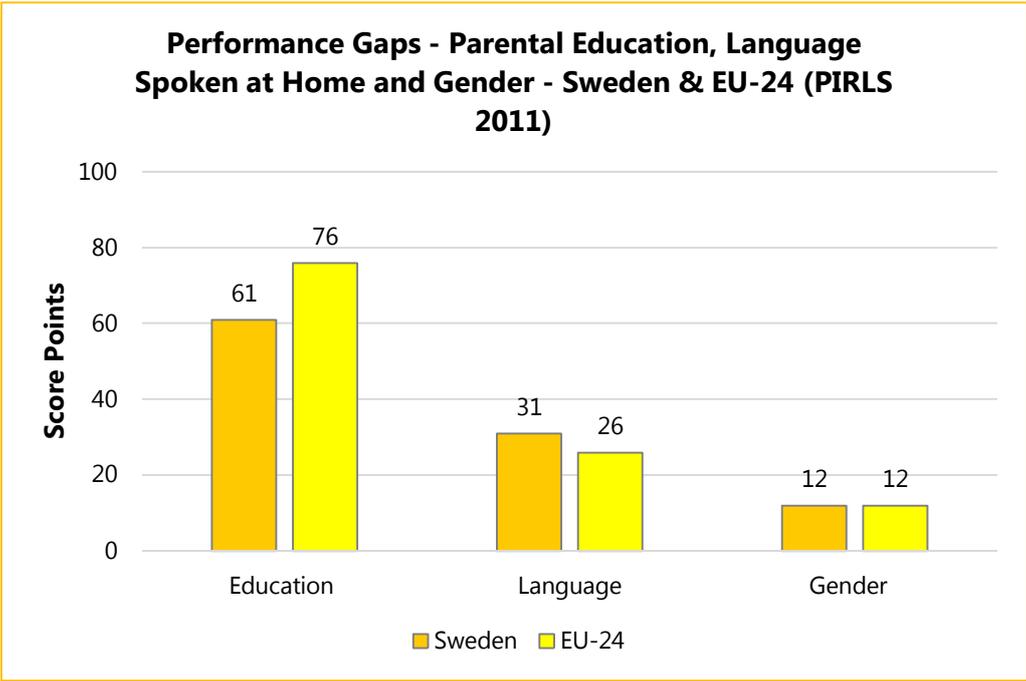
	Sweden			EU		
	Girls	Boys	Girls-Boys	Girls	Boys	Girls-Boys
2011	549	535	14	541	529	12
2006	559	541	18	541	528	13
2001	572	550	22	542	525	17

Significant differences in **bold**

The data on gender also show that, between 2001 and 2011, the average performance of boys in Sweden declined by 15 points, whereas the average performance of girls declined by 23 points.

The parental education, language and gender gaps in Sweden are summarised in Figure 1.

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



Attitudes to Reading

There was a difference of 53 points between the top and bottom quartiles of the Like Reading scale in Sweden in 2011 (Table 8). On average across the EU-24, the difference between students in the top and bottom quarters of the Like Reading scale was 52 points, indicating a similar relationship between liking reading and performance in Sweden.

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

Like Reading	Overall Reading Score		
	Top Quartile	Bottom Quartile	Difference (Q4-Q1)
Sweden	569	516	53
EU-24	563	511	52

Students in Sweden in the top quarter of the Confidence in Reading scale achieved a mean score (571) that was some 69 points higher than students in the bottom quarter (502) (Table 9). The average difference across the EU-24 was 80 points, indicating a relatively weaker relationship between Confidence and performance in Sweden.

In Sweden, 51% of students reported that they enjoyed reading a lot (one component of the Like Reading scale), compared with an EU-24 average of 55%.

Table 9: Mean Overall Reading Scores of Students in the Top and Bottom Quartiles of the PIRLS Confidence in Reading Scale – Sweden and EU-24 Average

Confidence in Reading	Overall Reading Score		
	Top Quartile	Bottom Quartile	Difference (Q4-Q1)
Sweden	571	502	69
EU-24	570	490	80

Data from the National Assessments at the end of the school year 2014/2015

National assessment tests are carried out at the end of school year 3 (since 2008/2009), 6 (since 2011/2012) and 9 (since 1997/1998). In year 3 the 'goal' is the lowest standard to be reached at the end of year 3, according to the national curriculum. In school years 6 and 9 there are standards set for marks E, C and A in the marking scale from F (lowest) to A (highest). In year 3 tests are administered only in Swedish/Swedish as a Second Language and Mathematics. In year 6 English is added and in year 9 also Science and Social Studies.

In year 3, between 90 and 99 per cent of the pupils reached the curricular goals in Swedish for that school year (Skolverket, 2015a). Girls performed better than boys on all subtests, the largest difference being on spelling and punctuation (96 % of the girls and 88 % of the boys reached the goals; exact data for each subtest are not given). Pupils studying Swedish as a Second Language (SSL) take the same tests but their achievement goals are different. SSL is studied by around 10 per cent of the school population in years 6 and 9. Among the SSL pupils between 70 and 92 per cent of reached the curricular goals, with about the same pattern among the subtests, also regarding the difference between girls and boys (spelling and punctuation: 85 % girls and 75 % boys reached the goal).

Table A: Percentage of pupils performing at standard level for year 3 in Swedish and Swedish as a Second Language (SSL)

Subtests	Pupils Swedish (%)	Pupils SSL (%)
SPEAKING		
A. Oral task	98	91
READING		
B. Narrative text	96	83
C. Non-fiction	94	79
D. Reading aloud one-by-one	96	87
E. Talking about text with the teacher	99	92
WRITING		
F. Writing narrative	93	85
G. Spelling and punctuation	92	80
H. Writing non-fiction	90	70

The description of the subtests for years 6 and 9 are less detailed in the report from the National Agency for Education. Part A contains various tasks in speaking, part B contains tasks in reading, and part C in writing. All parts have to be accomplished in order for the pupil to get a grade. In year 6 about 96 per cent of the pupils received at least E in Swedish, in SSL the percentage was 77. As in year 3, the students performed best in speaking and worst in writing. 94 per cent of the girls compared to 82 per cent of the boys received at least an E in writing in Swedish; the parallel figures for SSL were 73 per cent of the girls and 69 per cent of the boys. In the table below the percentage of pupils on each grade level (A-F) are given and on the subtests within brackets (S=Speaking, R=Reading, W=Writing)

Table B: Grades (A-F) in Swedish and Swedish as a Second Language (SSL) in school year 6 (percentage), test parts Speaking, Reading, and Writing in brackets. E is the lowest for passing.

Marks	Swedish (%)	SSL (%)
A	4 (S:12, R:17, W:3)	1 (S:3, R:3, W:1)
B	18 (S:22, R:26, W:11)	4 (S:9, R:9, W:4)
C	29 (S:28, R:22, W:21)	13 (S:18, R:15, W:10)
D	27 (S:20, R:20, W:26)	26 (S:24, R:25, W:19)
E	17 (S:15, R:10, W:27)	33 (S:32, R:20, W:33)
F	4 (S:4, R:3, W:12)	23 (S:14, R:27, W:34)

In year 9 the tests in Swedish also include three parts: Speaking, Reading, and Writing. Each part contains several tasks. 96 per cent of the year-9 pupils received at least an E on the whole test, and in SSL the figure was 75 per cent. As in the lower school years, the year 9 pupils performed best in Speaking, but here the poorest scores were in Reading. The pattern is the same for SSL-pupils.

Table C: Grades (A-F) in Swedish and Swedish as a Second Language (SSL) in school year 9 (percentage), test parts Speaking, Reading, and Writing in brackets E is the lowest for passing.

Marks	Swedish (%)	SSL (%)
A	6 (S:19, R:11, W:7)	1 (S:6, R:1, W:1)
B	16 (S:21, R:12, W:12)	4 (S:11, R:3, W:4)
C	29 (S:27, R:33, W:22)	14 (S:22, R:17, W:11)
D	24 (S:17, R:17, W:22)	22 (S:21, R:15, W:17)
E	20 (S:15, R:16, W:27)	35 (S:28, R:22, W:34)
F	4 (S:2, R:10, W:9)	25 (S:13, R:42, W:32)

In general, girls outperformed boys. Both in Swedish and in SSL the difference was largest in writing, where 95 and 74 per cent of the girls, respectively, received at least E, compared to 86 and 63 per cent of the boys.

3.2 Performance Data for Adolescents

The performance data are derived from the OECD PISA study.

The Programme for International Student Assessment (PISA) led by OECD⁶ **assesses the skills and knowledge of 15-year-old students every three years in all OECD countries and** in a number of partner countries.

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

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

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

Social segregation as regards, for instance, living conditions has increased a lot in Sweden in the last few years, especially in the urban areas. People move to the metropolitan areas in and around Stockholm, Gothenburg and Malmö. Most immigrants prefer to settle in these areas, because they have relatives and friends there. This has had a great impact on the schools in and around the cities, together with a number of school reforms that have been issued in the last 20-25 years.

In the early 1990's the Swedish parliament ruled that the municipalities should take over responsibility for the schools from the state. Schools are, however, still state funded, and following the national curriculum is mandatory, but the day-to-day running of the schools is de-centralised. In addition, parents were now allowed to choose which school they want their children to attend, thus abolishing the closest-to-home principle. At about the same time, the system of independent schools was introduced, making the choice of school even freer, at least in urban areas where most of the independent schools were started. With the increased segregation in residential areas, this has led to increased differences between schools, as regards social conditions as well as performance levels. Yang Hansen, Gustafsson, and Rosén (2014) claim that in Sweden, 15-19 per cent of the differences in performance in school year 4 and about 10 % in school year 8 are accounted for by school differences, largely because of "mechanisms related to the sorting of students across schools" (ibid., p. 41). These assumptions are based on data from TIMSS and PIRLS 2011.

⁶ See: <http://www.pisa.OECD.org>.

In the report 'Educational Equity in the Swedish School System?' the National Agency for Education (Skolverket, undated) discusses the question whether variation in results between municipalities, schools and classes has changed in the last 10 years, and the answer is 'yes' on all three accounts, according to both PISA results and national statistics on school grades. The variation between schools has increased and is particularly salient in the urban and metropolitan areas.

A different view is presented in a study by Böhlmark, Holmlund and Lindahl (2015), which suggests that the independent school reform 15 years after its instigation seems to have had little effect on school segregation – and thus performance on PISA etc. – although it is still true that the effects are more apparent in areas with more independent schools. It is also true that performance levels decrease in disadvantaged areas. Böhlmark et al. point out, however, that the decline in results started before the big reforms in the 1990s. The issue is open to debate, as there are no data available that indicate a causal relationship.

Compared to many other countries, the Swedish school system is relatively equitable (performance varied with about 12 per cent between schools in PISA 2012, compared to the OECD average of 37 per cent, even if it has increased between 2003 and 2012). Nevertheless, OECD (2015) recommends – in its review of the Swedish educational context and policies – that Sweden revise the school-choice arrangements, so as to ensure 'a more diverse distribution of students in schools' (ibid., p. 9). It is, thus, worth noting that the decline in performance, according to the OECD report, cannot be explained by differences between public and independent schools, nor by the rather high incidence of immigration, or gender, as the decline is apparent in all groups of students, low performing as well as high performing.

As regards the immigrant issue, a recent analysis of school results in school year 9, made by the National Agency for Education (Skolverket, 2016), came to the same conclusion. The analysis was, however, carried out before the latest influx of immigrants to Sweden during the autumn of 2015 could have any impact on school results. The report states that about 14 per cent of the decline in reading comprehension in PISA between 2000 and 2012 could be explained by the increased amount of immigrant pupils, and in the time span 2006-2012 it could explain about 22 per cent of the decline. The main reason why this analysis was made was a severe decline in the number of school year 9 pupils (the PISA population) whose merits were not enough to enter the upper secondary school (gymnasium). The share of immigrant pupils in the group who failed has grown from 30 per cent in 2000 to more than 50 per cent in 2015. Among these, an increasing number came to Sweden after school entry age (7 years). In the spring of 2015, pupils with a foreign background (either born in another country or born in Sweden with immigrant parents) was almost 23 per cent of the whole population in year 9. The authors of the NAE report suggest that the overall decline in results could be partly explained by the fact that conditions have changed in many schools, that teachers have a much harder job with an increasing number of children coming to school with no knowledge of Swedish, that there are not enough teachers trained to teach Swedish as a Second Language and that there are even fewer qualified interpreters and mother tongue teachers. According to the Education Act, all immigrant pupils are entitled to information and study instructions in their own language, something that is difficult to achieve in the current situation, especially in areas where the immigrant settle.

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

High and low performing pupils

In PIRLS 2011 the proportion of low performers in reading in Sweden (year 4 pupils) were 15 per cent (13 % of girls, 17 % of boys), and top performers were 9 per cent (11 % of girls, 7 % of boys). The proportion of low performers is higher than in other Nordic countries, whereas the proportion of top performers is lower (Sulkunen, Nissinen, & Kupari, 2014). This is a new development, since Swedish pupils used to have a top position in earlier PIRLS studies. An analysis of characteristics that were related to low performance demonstrated that there were more low performers in urban schools than in rural schools in Sweden and that speaking a language at home other than the school language raised the risk of being a low performer. Also, lack of parental support had an impact. Somewhat surprisingly, teachers' providing interesting and individualised reading materials in the classroom was related to low performance. Sulkunen et al concludes that "the principal difference between the low and the intermediate performers seems to lie in their basic skills, which then is related to their attitude and activities" (ibid., p 63). Characteristics strongly related to top performance for Swedish pupils were, for instance, command of early literacy tasks, reading stories, parents having tertiary education, books at home, and parents having a full-time job.

Sweden has participated in PISA since 2000. It is therefore possible to describe the change in reading proficiency over twelve years on average, according to different characteristics of the readers.

No other PISA-participating country saw a steeper decline in student performance over the past decade than Sweden. In all three core subjects measured in PISA – reading, mathematics and science – Sweden has declined from a position around or above the OECD average to a position significantly below the average. In 2012, among the 34 OECD countries, Sweden ranked 28th in mathematics, 27th in reading and 27th in science.

The performance decline is observed throughout the school system, among public and private schools, and among all groups of students, regardless of socio-economic status, immigrant status or gender. Among boys, however, the decline has been larger than among girls.

Table 10 shows that average performance in Sweden was 483 points in PISA 2012, which is significantly below the EU-27 average of 489.

Table 10: Mean Reading Scores in PISA 2012 – Sweden and EU-27 Average

	Mean	S.E.
Sweden	483	(3.0)
EU-27	489	(0.6)

S. E. = standard error; Significant differences between the country and the EU's average are shown in **bold**

Table 11 shows how performance on PISA reading declined between 2000 and 2012, with a 14 point decline between 2009 and 2012.

Table 11 Trends in reading performance, Sweden and EU-27 average – PISA 2000-2012

	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.
Sweden	516	(2.2)	497	(2.9)	483	(3.0)	-19	(6.1)	-14	(4.9)	-33	(7.0)
EU-27	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

Table 12 shows the difference in reading performance between students performing at the 10th and 90th percentiles in Sweden and on average across the EU-27 in 2012. The gap in Sweden, across all students (272 points) is greater than the corresponding EU-274 average of 251. The gap for boys (but not for girls) is also significantly higher than the EU-27 average for boys. These data indicate inequity in reading outcomes in Sweden.

Table 12: Spread in 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.
Sweden	272	(6.1)	245	(8.6)	281	(6.6)
EU-27	251	(1.3)	230	(1.2)	259	(1.6)

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

In PISA 2012, more students in Sweden (22%) than on average across the EU-27 (20%) performed below Level 2 on overall reading, while similar proportions (8% in Sweden, 7% on average across the EU-27) performed at Level 5 or higher.

Table 13: Percentage of Low-performing (below level 2) and High-performing (levels 5 and 6) Students in Sweden and on Average Across the EU-27- PISA 2012

	Below level 2		Levels 5 and 6	
	%	S.E.	%	S.E.
Sweden	22.7	(1.2)	7.9	(0.6)
EU-27	19.7	(0.2)	7.0	(0.1)

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

The proportion of boys in Sweden achieving below Level 2 increased from 17% in 2000 to 31% in 2012 (Table 14). There was also an increase in the proportion of girls performing below Level 1, from 13% to 23%.

Table 14: Trends in the Proportion of Low Performers (below level 2) in Reading in Sweden, 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	12.6	(0.7)	7.8	(0.8)	16.8	(1.0)
2009	17.4	(0.9)	10.5	(1.0)	24.2	(1.3)
2012	22.7	(1.2)	14.0	(0.9)	31.3	(1.8)

Significant differences between assessment cycles in **bold**

Longitudinal studies in Australia, Canada, Denmark and Switzerland show that students who do not reach the baseline proficiency level in PISA often face severe disadvantages while transitioning into higher education and the labour force. Thus, the proportion of students who perform below this baseline level indicates the degree of difficulty countries face in providing their populations with the means to succeed in the future.

In reading, the share of top-performing students declined from 11% in 2000, above the OECD average, to 8% in 2012, not significantly different from the OECD average.

In 2009 (Table 15) as well as in 2012, Swedish students have a higher average on the digital reading scale than on the traditional reading scale. In 2012 the Swedish score for digital reading was 498 and for print reading 483.

Table 15: Mean Scores, Variation in Student performance on the Digital and Print Reading Scales, and Mean Score Difference – PISA 2009 – Sweden

Digital reading scale				Print reading scale				Difference between digital and print
All students				All students				
Mean score		Standard deviation		Mean score		Standard deviation		
Mean	S.E.	SD	S.E.	Mean	S.E.	SD	S.E.	Score dif.
510	(3.3)	89	(1.8)	497	(2.9)	99	(1.5)	+13

3.2.2 Gaps in reading performance

Socio-economic status

In PISA 2009, there was an 82 point difference in reading performance between students in the top and bottom quartiles of the PISA index of economic, social and cultural status (a measure of socioeconomic status) (Table 16). The corresponding EU-26 difference was greater at 89 points.

Table 16: Difference in Reading Performance between Bottom and Top National Quarters of the PISA Index of Economic, Social and Cultural Status – PISA 2009, Sweden

	Score diff.
Sweden	82
EU-26	89

Like most other Nordic countries, Sweden has a high degree of social equity in the school system.

While many socio-economically disadvantaged students succeed at school, and many achieve at high levels on the PISA assessment, socio-economic status is still a strong predictor of performance in many countries. Student performance in Sweden declined over the past decade among socio-economically disadvantaged and advantaged students alike. The decline in Sweden's average results cannot be ascribed to a decline in performance among a particular group of students.

Sweden – like all other Nordic countries – has relatively small variations in performance between schools. Ensuring consistently high standards across schools is a challenge for many school systems. The performance differences between schools may be related to the student composition of schools, differences in school policies, practices and resources, and/or differences in education policies at the system-level.

In Sweden and the other Nordic countries, between-school variation is relatively small but within-school variation is relatively large. In other words, the average performance of schools does not vary as much as in many other countries, but there are large differences in student performance within each school. In comparing with other countries it is important to point out that in the Nordic countries most 15-year olds are enrolled in year 9 of compulsory school while students in many other countries attend upper secondary school.

PISA measures the variation between schools within a country as the percentage of the average total variation across OECD countries. In Sweden, the between-school variation is 12% compared with an OECD average of 37%. The only other OECD countries where between-school differences account for less than 15% of the OECD average total variation are Finland, Iceland and Norway. However, the performance variation between schools in Sweden increased between 2003 and 2012.

The performance variation between schools in Sweden increased between 2003 and 2012 from 9,3% to 12,5% of the OECD average total variation. While differences between schools increased, the differences within each school became smaller as the within-school variance decreased from 92% to 85% of the OECD average total variation over the same period. The total variation in student performance across all students in Sweden – within and between schools – is close to the OECD average and has remained so over the last decade.

Migration

Even though the share of immigrant students in Sweden increased from 2003 to 2012, it cannot explain the decline in Sweden's overall results.

Sweden has a larger share of immigrant students than most other OECD countries and the largest share among the Nordic countries. The share of immigrant students increased in all Nordic countries over the past decade; in Sweden, it increased from 12% to 15% of 15-year-old students. These figures include both first- and second-generation immigrants.

Table 13: Percentage of Students and Reading Performance by Immigrant Status – PISA 2009 – Sweden and EU-24 Average

	Native students				Students with an 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.		
Sweden	88.3	(1.2)	507	(2.7)	11.7	(1.2)	442	(6.9)	66	(7.2)
EU-26	91.7	(0.02)	490	(0.4)	8.3	(0.02)	452	(6.4)	39	(6.4)

The increase in the share of immigrant students had only a small impact on the overall results for Sweden and cannot explain the significant decline in Sweden’s overall results. Both immigrant and non-immigrant students in Sweden saw a sharp decline in performance over the past decade and the results did not deteriorate significantly more for one group than for the other.

The performance gap between immigrant and non-immigrant students varies among countries, partly because of variations in the composition of the immigrant populations and partly because of differences in the efficacy of social and education policies. The performance gap between immigrant and non-immigrant students in Sweden is 58 points on the PISA scale. This is not statistically significantly different from the performance gaps observed in Denmark, Iceland and Norway. In Finland the performance gap is 85 score points, significantly higher than in the other Nordic countries; however, the share of immigrant students in Finland is relatively low, at 3%.

Nevertheless, the performance gap between immigrant and non-immigrant students remains a major challenge for the Swedish school system.

Language spoken at home

It is debated whether *what* mother tongue or language is spoken at home has any impact on how well the children learn Swedish as a Second Language. Research is not unequivocal (Alexandersson & Bylund, 2012), but it seems feasible to believe that the greater the distance between the languages, the harder it is to learn the other language. Many of the recently arrived pupils in Swedish schools come from Syria, Afghanistan, Iraq, and Somalia, whose languages (e.g., Arabic and Somali) are far from related to Swedish. However, factors like social and cultural differences, age, age at arrival, parents (particularly mothers’) educational level, language aptitude, attitudes and motivation also play important roles (OECD, 2015).

In Sweden, there was a 72-point difference between students who spoke the language of the PISA at home and those who spoke a different language. On average across the EU-27, the difference was smaller, at 54 points. Fewer students in Sweden, than on average across the EU-27, spoke a language at home that was different to that of the PISA test.

Table 14: Percentage of students and reading performance by language spoken at home – Sweden and EU-27 Average (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.		
Sweden	91.9	(0.9)	507	(2.7)	8.1	(0.9)	435	(7.7)	72	(7.7)
EU-27	86.7	(0.02)	494	(0.4)	13.3	(0.02)	441	(5.4)	54	(5.4)

Gender

Also in the national assessments in school years 3, 6 and 9 the girls' average performance is better than that of the boys, the difference being largest in writing. In year 3, 85 per cent of the girls and 75 per cent of the boys reached the minimum standard level in spelling and punctuation. Among year 6 pupils, 2 per cent of the girls and 7 per cent of the boys did not pass the test in Swedish. Among the SSL pupils, 19 per cent of the girls and 26 per cent of the boys did not pass the test. In year 9 the figures were as follows: 2 per cent girls, 6 per cent boys did not pass the test in Swedish, 21 per cent girls and 28 per cent boys did not pass the test in SSL (Skolverket, 2015a).

In Sweden, average performance declined among students of both genders, but more so for boys than for girls.

Table 15: Mean Print Reading Performance by Gender and Gender Differences – PISA 2009 – Sweden and EU-26 Average

	Boys		Girls		Difference (B – G)	
	Mean	S.E.	Mean	S.E.	Score dif.	S.E.
Sweden	475	(3.2)	521	(3.1)	-46	(2.7)
EU-26	463	(0.5)	506	(0.4)	-44	(0.5)

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

In all OECD countries, the largest gender differences in performance are found in reading with girls consistently outperforming boys. In Sweden, the gender gap used to be of the same magnitude as the average across OECD countries. But with a larger decline in performance among boys than among girls between 2000 and 2012, the gender gap in Sweden is now larger than the OECD average (Table 16). Today, Swedish girls have an average score of 509 points in reading, 8 points below the OECD average for girls, while boys have an average score of 458 points, 21 points below the OECD average for boys.

Table 16: Trends in Reading Performance by Gender – PISA 2000-2012 – Sweden and EU Average

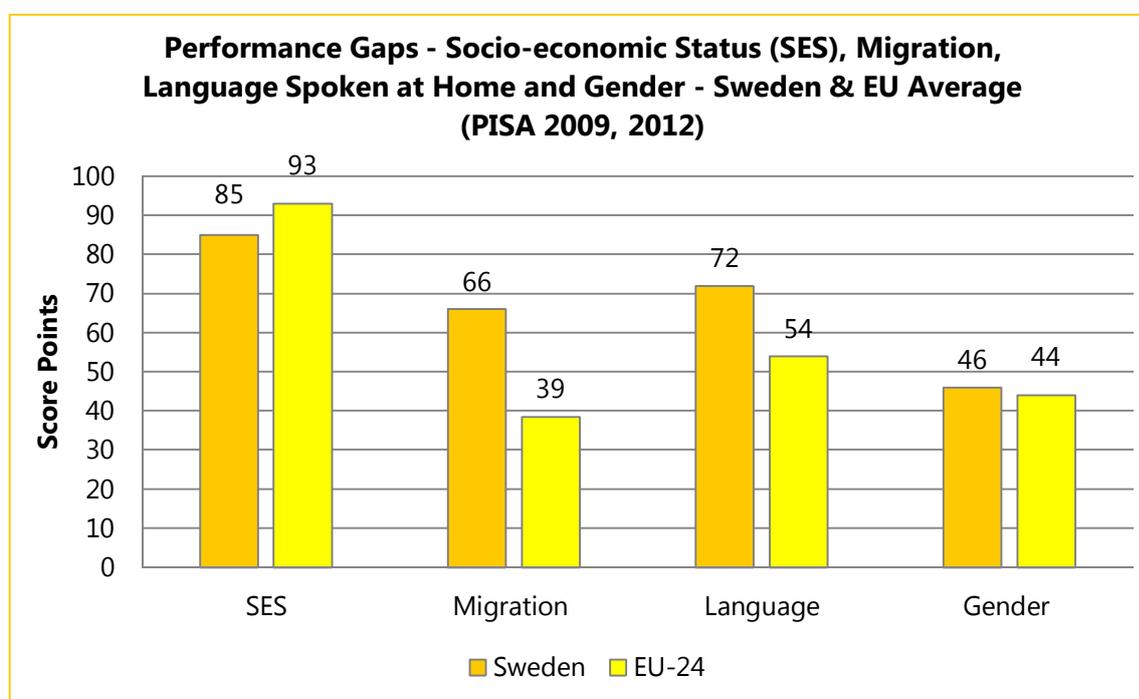
	Sweden				EU-27			
	Girls		Boys		Girls		Boys	
	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.
2000	536	(2.5)	499	(2.6)	506*	(0.8)	473*	(0.9)
2009	521	(3.1)	475	(3.2)	507**	(0.7)	464**	(0.8)
2012	509	(2.8)	458	(4.0)	511***	(0.6)	468***	(0.8)

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

Sweden shows the largest increase in gender differences of all OECD countries. Sweden is now one of the countries with the largest gender differences on PISA overall reading; the others are Finland, Iceland and Slovenia.

Figure 2 summarises performance gaps at post-primary level in Sweden.

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



Engagement and metacognition

The National Agency for Education (Skolverket, 2015c) reports that motivation to carry out PISA-tests has decreased throughout the years among Swedish pupils, and there is a correlation between motivation and performance. Also, it pertains mostly to the reading items. Although the correlation is not very strong, it is not negligible – and it is stronger than in other comparable countries. Like many pupils from other countries, the Swedish pupils also claim that motivation is lower for PISA-tests than for the national tests that are important for their final grades in school year 9. However, the difference is largest among Swedish pupils. The results in this survey emanate from a combination of the 'effort thermometer' in PISA and six additional questions about motivation that supplemented PISA 2012 in Sweden. There are some differences between boys and girls in this respect. The correlation between

reported effort and performance is stronger for girls and girls also have a higher degree of test motivation. On the other hand, these measures have decreased more for girls than for boys from 2003 to 2012. A regression analysis reveals that about 8 per cent of the variation in performance in maths is explained by effort (and a little more in reading), so effort does not explain the main part of the decline although it is a contributing factor to take into account. The NAE concludes that it is likely that most of the decline in performance on PISA (and PIRLS) is due to a general decline in skills and knowledge in the subjects measured in PISA and other international investigations.

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 summarise 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.

Table 17: Mean reading scores between students poorly engaged and highly engaged in reading – PISA 2009

	Low quarter		Top quarter		Difference
	Mean	S.E.	Mean	S.E.	
Sweden	448	(3.4)	563	(3.6)	115
EU-26	444	(0.8)	543	(0.8)	99

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

In Sweden, there is a gap of 115 score points - which is equivalent to almost three years of schooling - between the students reporting being highly engaged in reading (top quarter), and those reporting being poorly engaged (bottom quarter) in that activity. Not surprisingly, students who report being engaged in reading perform better in the PISA test. The difference between the most and the least engaged readers is higher in Sweden than in the EU's average.

Table 18: Mean reading scores between students in low and top quarters of understanding and remembering strategies

	Low quarter		Top quarter		Difference
	Mean	S.E.	Mean	S.E.	
Sweden	444	(3.7)	554	(3.1)	110
EU-26	433	(0.8)	531	(0.8)	98

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

In Sweden, there is a gap of 110 score points - equivalent to more than two years and half 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 that. On average, in the EU-26, the gap is somewhat lower (98 score points). This huge difference reflects how closely reading proficiency and awareness of efficient reading strategies are linked.

Table 19: Mean reading scores between students in low and top quarters of summarizing strategies

	Low quarter		Top quarter		Difference
	Mean	S.E.	Mean	S.E.	
Sweden	442	(3.1)	544	(2.8)	102
EU-26	440	(0.8)	530	(0.7)	90

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

In Sweden, there is a gap of 102 score points – which is equivalent to two years and a half of schooling- between the students who know which strategies are the most efficient to summarize a text, and those who have a limited knowledge of that. On average, in the EU-26, the gap is somewhat lower (90 score points). This difference reflects how closely reading proficiency and awareness of efficient reading strategies are linked.

National Studies about digital and print literacy competences

Rasmusson (2014) reports four studies about reading comprehension among 14-15 year olds, using both digital text and more traditional text on paper. In the first study 235 pupils took part; their scores were somewhat better on the paper text than on the digital text, a result opposite to the study accompanying the PISA 2009, where Swedish pupils on average performed slightly better on the digital tasks (Skolverket, 2011a). It is, however, worth noting that the Swedish results on digital reading deteriorated between PISA 2009 and PISA 2012, i.e. in line with the overall PISA results in reading for Sweden (OECD, 2014, p. 89, figure 3.4). Also notable is the fact that there was a significant decline of 3.7 among Swedish pupils in the share of students scoring below level 2 between 2009 and 2012 (ibid., p. 93, figure 3.6), close to the OECD average but nevertheless alarming. At the same time, Swedish pupils performed better on average than expected when their scores on the PISA paper reading tests are considered. Gender differences are less obvious on the digital tasks, i.e. on the traditional reading tasks the difference was 46 points in favour of the girls, and on the digital tasks it was 26 points. The OECD average was 38 and 24 points, respectively (Skolverket, 2011a, p. 97). Rasmusson used the 2009 PISA data for the other three studies. She found that the boys' relatively better performance could be attributed to the fact that boys spend more time on computer-games. In addition, in one study she found that performance on digital reading seems to be less dependent on background factors than that of traditional reading. Maybe this can be explained by the incidence of computers at home? According to the NAE report (2011), 99 per cent of all Swedish pupils taking part in PISA 2009 had access to at least one computer at home, and a slightly lesser than average proportion of pupils with low SES claimed that they had never used a computer (0.6 – 0.7 per cent).

4 Policy areas

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

- 1) Creating a more literate environment
- 2) Improving the quality of teaching
- 3) Increasing participation, inclusion and equity (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 and PIRLS 2001 data.

4.1 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) .

4.1.1 Providing a literate environment at home

The **home learning environment**, particularly in the first three years, is extremely important (Taggart et al. 2015; UNICEF 2001). 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 et al. 2012a, Exhibit 4.4 – Parents Like Reading, p. 120).

- Like: 51.6% (European average 35.3 %)
- Somewhat like: 41.7% (European average 52.6 %)
- Do not like: 6.7% (European average 17.9 %)

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

Compared to the European average, a high percentage of pupils in Sweden have parents with positive attitudes towards reading. The importance of parental attitudes to reading is shown by the fact that there are significant differences in reading performance at grade 4 between children whose parents like to read (average achievement 562) and those who do not (average achievement 513).

Home Educational Resources

In Sweden, 7% of parents reported having few home resources for learning (based on a scale that includes number of books at home, number of children’s books at home, access to a quiet room to study, Internet access, and parent education and job status) which is well below the EU average of 25% (Table 20). In addition, twice as many parents in Sweden (50%) report having access to many resources for learning as the EU-24 average (25%), suggesting that pupils in Sweden have greater access to home resources. The difference in achievement between pupils in Sweden whose parents reported having many home resources and few resources was 73 score points – 6 points below the corresponding EU-24 average difference (79), indicating that the association between overall home resources and reading achievement is slightly weaker in Sweden than on average across the EU-24.

Table 20: Percentages of Pupils Whose Parents Reported Having Few or Many Home Resources for Learning, and Corresponding Mean Overall Reading Scores – Sweden and EU-24 Average

Level of Home Resources	Few Resources		Many Resources		Difference (Many - Few)
	%	Mean	%	Mean	
Sweden	7	495	50	569	73
EU-24	25	495	25	573	79

Statistically significant mean score differences in bold.

Number of children's books in the home

The PIRLS 2011 database provides the figures below about the number of children's books in the home in Sweden, as reported by parents:

- 0-10: 4.6% (European average 11.8%)
- 11-25: 9.0% (European average 19.7%)
- 26-50: 23.0% (European average 29.4%)
- 51-100: 33.0% (European average 23.4%)
- >100: 30.4% (European average 15.7%).

Compared to the European average (for an overview of European countries see table B2 in Appendix B) the availability of children's books in the home is very high, especially concerning the availability of more than 50 children's books in the home.

A second source of information on children's books comes from students. In Sweden, 7% of students reported having 10 or fewer books at home, compared with an EU-24 average of 11% (Table 21). More pupils in Sweden (18%) reported having over 200 books, than on average across EU countries (12%). The achievement gap between those with 0-10 books and those with 200+ books is 85 points. This is slightly more than the EU average of 82 points. Hence, the association between number of books at home and reading achievement in Sweden is slightly stronger than on average across the EU-24.

Table 21: Mean Overall Reading Scores of Pupil with 0-10 books at Home, and those with More than 200 Books – Sweden 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	
Sweden	7	485	18	570	85
EU-24	11	482	12	563	82

Statistically significant mean score differences in bold.

Early Literacy Activity Scale

PIRLS 2011 reports the percentage of students whose parents (often, never or almost never) engaged in literacy-relevant activities with them before the beginning of primary school (Mullis et al. 2012a, 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 figures for Sweden in the composite score for all these activities are below (for an overview of European countries see table B3 in Appendix B):

- Often: 34.0% (European average 40.7%)
- Sometimes: 64.2% (European average 57.4)
- Never or almost never: 1.8% (European average 1.9%).

This means that, in Sweden, there are less parents who often are involved in the nine activities, compared with the EU 24 (2%) and more parents who are sometimes involved. The Early Literacy Activity Scale correlates with later reading performance in grade 4. The average reading score of pupils who were engaged often in these activities was 562 and 537 for those pupils who sometimes were engaged in these activities with their parents before the beginning of primary school. These figures 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 is a composite score it is of interest to look at single items. If only the category “often” is considered, the percentage of pupils in Sweden whose parents engaged in literacy-related activities with them before the beginning of primary school is below the European average in most items:

- read books to them often: 69.2% (European average 58.4 %)
- told stories to them often: 40% (European average 51. 5%)
- sang songs to them often: 47.8% (European average 50.6%)
- played games involving shapes (toys and puzzles) with them often: 41.3% (European average 63.5%).

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

Challenge: Since reading to the child is a predictor of future literacy achievement, it is a matter of concern that about 30 percent of the parents do not read books often to their children. There is a need for programmes **to raise awareness of all parents** that literacy is a key to learning and life chances and that the basis for good literacy achievement is laid in early childhood.

4.1.2 Creating a literate environment

Extensive classroom libraries may not be so common in Sweden, but school libraries have been in existence for many years although not everywhere. According to the latest Education Act (Skollagen 2010:800), every school must have access to a school library with a librarian available at least 20 hours/week. According to statistics from The National Library of Sweden (Kungliga Biblioteket, 2015), this was true for about half of the population of school children in 2014. Financial reasons in many municipalities are behind the failure to establish school libraries, so about one third of the municipalities have no school libraries with trained staff and in others the libraries are staffed less than 20 hours/week, according to an article in the librarians’ journal (Hamrud, 2016). In addition, the authorities do not define the concept of school library. However, traditionally public libraries often have close relations with schools and their librarians serve the schools as well.

Based on data provided by their teachers, PIRLS shows that 52.0% of students in Sweden are in classrooms which have class libraries –below the corresponding EU-24 average of 72.9% (1 Appendix

C, Table H2). However, the Education Act (2010) states that every school must have access to a library with a trained librarian for at least 20 hours per week. In Sweden, 28.32% of students were in classrooms with more than 50 books, which is marginally below the EU-24 average of 32.1% (ibid.).

4.1.3 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, 73% of students in Sweden have a computer available for reading lessons, compared to the EU-average of 45% (ELINET PIRLS 2011 Appendix Table I6 - data available for at least 70% but less than 85% of the students). Teachers report that at least monthly, 43% of students use instructional software to learn reading skills and strategies, look up information (64%), read stories or other texts (44%), and write stories or other texts (65%). These figures differ substantially from the corresponding EU averages (27%, 39%, 32% and 33% respectively) indicating that computers are used in different ways in Sweden than across the EU.

4.1.4 The role of public libraries in reading promotion

Public libraries are an important agent in reading promotion. In the bill New Library Act (Ministry of Culture, Sweden April 2013)⁷ the Government proposes a new act to form the basis for activities at the country's libraries. The aim is to provide public libraries for everyone. "Under the proposed legislation, each municipality is to have one or more public libraries. The responsibilities of public libraries are to:

- be accessible to everyone and adapted to the needs of users;
- particularly promote reading and access to literature; and
- pay special attention to children and young people to support their language development and encourage reading.

The proposal also means that fundamental quality criteria will be introduced regarding the selection of media and services at public libraries – this must be characterised by inclusiveness and quality".

Most major libraries also have a book bus that delivers literature to remote areas and smaller villages where there is no public library or extension at a reasonable distance.

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

Reading promotion initiatives

'Läs rörelsen' ('The Reading Movement') started in 1998 as a successful nationwide campaign for reading promotion and is now established as an association, which cooperates with McDonald's Sweden and Munkedal's paper mill. It has now spread all over Scandinavia. This cooperation has resulted in the publication of books for children and youth, to be included in a 'Book Happy Meal' that is available at all McDonald's restaurants in Scandinavia for at least four weeks every year. All books are written by Scandinavian authors, and some are reprints of classics. They are available in Danish, Finnish, Norwegian, and Swedish. Between 2001 and 2015, distribution has included 16.9 million

⁷ <http://www.grenzenloslesen.de/wpprojekt/wp-content/uploads/2013/12/Bibliotheksgesetz-Schweden.pdf>.

copies of 95 titles by 87 authors⁸. During the campaign weeks, up to nine titles are available to choose from.

Most public libraries in the country arrange 'read-alouds' for children of various ages, in many places also in different languages, according to needs. Such initiatives are announced locally.

Many single initiatives are taken in different municipalities as regards reading promotion, but national overviews are hard to find. One example in the municipality of Linköping is a small group called "The friends of children's books" (Barnbokens Vänner). From this group every new born child in Linköping gets a book as a gift, and once a week one of the members is reading aloud to children at the library.

The Riksdag has adopted the following national objectives for the policy for literature and reading promotion: "Everyone in Sweden, regardless of background and on the basis of each individual's particular circumstances, is to be given the opportunity to develop good reading skills and have access to high-quality literature". As part of a special literature and reading promotion initiative, the Arts Council also supports collaboration between libraries and civil society organisations, literary events in the book trade, as well as electronic publication of older works (Government Offices of Sweden (2014). Literature, reading and language)⁹.

Family literacy programmes

Parenting Young Children (PYC) was developed by the Parenting Research Centre as an education programme to help parents with intellectual disabilities develop skills and confidence in parenting tasks. The skills include basic child care such as feeding, sleeping and safety, and parent-child interactions. PYC is a home-based intensive parent education programme, ideally structured around weekly sessions. Parents are taught to plan stimulating play and learning activities, engaging the child in these activities through positive attention, praise, descriptive statements and modelling. The programme also teaches parents to acquire and maintain skills in childcare, food preparation and handling, meal-time issues, shopping, nutrition, bathing, bedtime and sleeping, personal hygiene, health monitoring, emergency management, safety and living space maintenance. Since each programme is individually tailored based on parent-driven goals, and as all parents have their own individual learning pace, there is no predetermined session length or number of sessions (Information drawn from Mikaela Starke, Catherine Wade, Maurice A Feldman, and Robyn Mildon. "Parenting with disabilities: Experiences from implementing a parenting support programme in Sweden." *Journal of Intellectual Disabilities*, June 2013, vol. 17 no. 2. pp. 145-156)¹⁰

Other relevant programmes or initiatives

Las For Mej, Pappa ("Read to Me, Daddy") is a literacy-based project in Sweden targeting working fathers, most of them immigrants, who are part of local trade unions. It reflects the belief, prevalent in Sweden, that literacy is everyone's responsibility, not just that of the education system. Begun by national unions in 1999, the project was a response to the observation that men at the local unions were not reading sufficiently and thus were not helping their children to read. The unions perceived the lack of reading as a threat to democracy. Local union branches are responsible for disseminating information about the programme among their members and for stocking books of interest to both

⁸ See: www.lasrorelsen.nu.

⁹ <http://www.government.se/government-policy/culture/objectives-and-visions/>.

¹⁰ See: http://europa.eu/epic/practices-that-work/practice-user-registry/index-country_en.htm#topic_0801262488646df3.

union members and their children. Each local union organises “daddy days”, when a working-class author, who presents his book, and a child-development expert discuss the importance of writing and reading, and explain to fathers how they can help to improve their child’s reading habits. All local unions in Sweden now run the programme, and as of June 2008, around 1,500 fathers had participated (OECD 2012).

Fostering digital literacy in and outside schools

The National Agency for Education monitors and reports to the government every three years on the use of, and competence in, Information and Communications Technology (ICT). In 2013, the report showed an increase in the use of computers in schools in comparison with 2008 (The Swedish National Agency for Education, 2013b).

More computers have, however, not contributed to the use of more ICT in teaching. The use of ICT in the classroom is as low as it was several years ago in several subjects. The report also shows that many teachers experience large deficits in the support for ICT as well as for the equipment.

It is the responsibility of the teachers to decide which materials to use and it is the responsibility of the principal to make sure the teachers have the competence and knowledge necessary. Although Swedish teachers in general consider themselves as having “rather good” competence as regards using computers in school, about one fifth of them claim that they need more education in the area, especially in the lower school years (Skolverket, 2013).

4.2 Improving the quality of teaching

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

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

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

4.2.1 Quality of preschool

As regards language and literacy, according to the Curriculum for the preschool (Skolverket, 2011b; UNESCO, 2012), each child should, for instance:

- develop their use of spoken language, vocabulary and concepts, as well as the ability to play with words, relate something, express their thoughts, put questions, and put forward their arguments and communicate with others,
- develop an interest in the written language and an understanding of symbols, and their communicative functions,
- with a mother tongue other than Swedish develop their cultural identity and the ability to communicate in both Swedish and their mother tongue.

The latest statistics available from the NAE are from 2014 (Skolverket, 2014) . Average size of a group of children is 16.9 and number of children per fulltime staff is 5.3 (the group size is a little smaller in independent preschools, 16.3 children). 43 per cent of the staff had relevant education, which means a 3.5 year preschool teacher training. More than 20 per cent of the staff were not qualified to work with children. Figures have been stable in the last ten years. At the end of 2014, 83 per cent of the population between 1 and 5 years of age was attending preschool; among the age group 4-5 years, 93 per cent attended.

Percentage of males among preschool teachers: There are only 4 per cent male preschool staff, and among the qualified preschool teachers only 2.8 per cent are male. In independent preschools there are about twice as many males as in the public preschools (6.2 versus 3.4 per cent). Among the leaders 7.7 per cent are male and among those working with special needs children 7.4 per cent are male (Skolverket, 2014).

While early childhood education has long been neglected as a public issue, nowadays early childhood education and care (ECEC) has been recognised as important for “better child well-being and learning outcomes as a foundation for lifelong learning; more equitable child outcomes and reduction of poverty; increased intergenerational social mobility; more female labour market participation; increased fertility rates; and better social and economic development for the society at large” (OECD 2012 *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 Sweden is 0.7%. 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

For children at the age of four the ratio in Sweden is 6.3. For the other European countries 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

No data are available for Sweden (for an overview of European countries see table D3 in Appendix B).

Preschool teachers' qualifications

The minimum required level to become a qualified teacher in Sweden is Bachelor level (ISCED 5) Length of training for preschool teachers is 3,5 years (European Commission/ EACEA/Eurydice/Eurostat 2014, p. 101).

Continuing Professional Development is not obligatory (Eurostat 2014, pp. 104–105).

Comment to page 39, Preschool teachers' qualifications. Curriculum for preschool concern children aged 1-5 years; 6 year olds go to 'preschool class'; this is a preparation for the compulsory school, which the children enter at age 7. The preschool class is situated in the school, and teacher education for the early years now includes the preschool class, hence F-3, where F stands for 'Förskoleklass'.

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 that are sometimes different to those of school children. Preschool 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 Sweden, Curricula for preschool concern children aged 1-5 years; 6 year olds go to 'preschool class', this is a preparation for the compulsory school which the children enter at age 7. The preschool class is situated in the school, and teacher education for the early years now includes the preschool class, hence F-3, where F stands for 'Förskoleklass'.

The revised preschool curriculum (2010, Skolverket, 2011b) sets clear but broad goals about children's language and literacy development. Specifically, the educational work that is provided in preschool should stimulate children's language development and enhance their curiosity and interest in the written language. All the corresponding learning activities should be based in children's needs and interest.

The specific curriculum goals regarding language and literacy development refer that in preschool efforts should be made in order for children to develop their listening, speaking and comprehension skills and understand the functions and the communicative aspects of written language (Eurydice 2010, p. 10).

According to the revised curriculum (2010), preschool should provide to children a learning environment which is open, enriched by content and attractive. In addition, children are provided with

various materials and technologies which can be used in several creative processes which enhance their learning (Eurydice 2010, p. 10). Children should be aware that print carries meaning (Eurydice 2011, p. 55). Concerning language awareness, children play with language and use nonsense words and rhyming (Eurydice 2011, p. 55).

4.2.2 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.

Reading is no separate curriculum area (Skolverket, 2011c). Syllabi for the different subjects are listed in alphabetical order, and reading has no separate headline, it is under the headline 'Swedish'. There is a separate headline for Swedish as a second language, though.

Page 211f. in the curriculum: "Teaching should stimulate pupils' interest in reading and writing. Through teaching pupils should be given the opportunity to develop their knowledge of how they can express their own views and thinking in different types of texts and through various media. Teaching should also aim at enabling pupils to develop skills for creating and working on texts, individually and together with others. Pupils should also be encouraged to express themselves through different forms of aesthetic expression. Teaching should also help pupils to develop their knowledge of how to search for and critically evaluate information from various sources.

In teaching, pupils should meet and acquire knowledge about literature from different periods and different parts of the world. Teaching should also help to ensure that pupils develop their knowledge of various forms of non-fiction. When encountering different types of texts, performing arts and other aesthetic narratives, pupils should be given the preconditions to develop their language, their own identity and their understanding of the surrounding world, read and analyse literature and other texts for different purposes, search for information from different sources, and evaluate these."

Primary schools curricula

According to PIRLS 2011, 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, and Sweden. However, in the Swedish curricula, syllabi for the different subjects are in alphabetic order, and reading has no separate headline, it is under the headline 'Swedish'. In all other countries reading usually is taught as part of the national language curriculum that also includes writing and other communication skills (Mullis et al. 2012b, Vol.1, exhibit 5, p. 30, 31). But reading is not taught as a separate subject in Sweden, although reading and writing constitute a major part of Swedish instruction in the early grades. In teaching Swedish, language and literature are treated as a whole. The curriculum states that, "the school is responsible for ensuring that all pupils completing compulsory school have a mastery of Swedish and can actively listen and read as well as express ideas and thoughts in the spoken and written language." (Mullis et al. 2012b, Vol.2, p. 640).

Reading for pleasure

According to PIRLS 2011 Encyclopaedia, Sweden is among a group of 11 countries participating in PIRLS 2011 which reported some emphasis on reading for pleasure in the intended language/reading curriculum. Four of the EU-24 countries in PIRLS 2011 reported that reading for pleasure was given a

little or no emphasis and 9 countries that it had major emphasis (Mullis et al. 2012b, Vol.1, exhibit 9, p. 37).

Content of reading 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

Explicit teaching of grapheme-phoneme correspondence has a long tradition in Swedish schools (actually since the 1860s when general teacher education was established). Obviously it has been more or less taken for granted that this is a major part of reading instruction in the first school years. So much so, that in the 1990s the NAE did its best to stimulate teachers to try other methods, for instance, those based on Whole Language, and more authentic literature rather than 'primers'. In 2007 NAE published an analysis of research made in Swedish schools 1995-2007 regarding the teaching of literacy. In the early school years, 80 per cent of the teachers for the most part used traditional methods with a focus on grapheme-phoneme correspondence. After the 2011 Eurydice report was published, Sweden has launched a new curriculum (in 2011), which is much clearer in pointing out what should be taught.

Teaching of reading strategies in primary schools

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

- 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 (Eurydice 2011, p. 55).

In PIRLS 2011, the National Research Coordinator for Sweden indicated the relative emphasis placed on the following aspects of reading comprehension in the intended national language/reading curriculum at Grade 4:

- Retrieving explicitly-stated information from a sentence or phrase (some emphasis)
- Locating and reproducing details from a clearly-defined section of text (some)
- Connecting two more pieces of information or ideas (some)
- Identifying main ideas (some)
- Recognising plot sequences and character traits (some)
- Describing overall theme or message (some)

- Comparing information in and across texts (some)
- Making generalizations and drawing inferences with textual support (some)
- Describing style or structure of text (some)
- Determining author's perspective or intention (some).

As regards reading comprehension, examples of strategies are not directly mentioned in the curriculum. This has, however, been given attention in the last few years, and the NAE has initiated an extensive competence development programme for teachers, which is mandatory for all teachers in the elementary school ('Läslyftet'). Before that, a well-known author of children's books (Martin Widmark, former teacher) established a web-based programme for teaching comprehension strategies, which has become very popular among both teachers and pupils ('En läsande klass'¹¹).

According to the 2011 curriculum, the teaching of reading comprehension should give the pupils opportunities 'to develop their ability to read and analyse literature and other texts for different purposes ... identify language structures And search for information from different sources, and evaluate these'.

Some parts of the curriculum refer to reading strategies:

in school years 1-3

- reading strategies for understanding and interpreting texts, as well as adapting reading to the form and content of texts
- the message, structure and content of narrative texts, how a narrative text can be organised with an introduction, sequence of events and an ending, as well as descriptions of literary figures
- descriptive and explanatory texts, such as factual texts for children, and how their contents can be organised
- instructional texts, such as game instructions and task descriptions, and how these can be organised in logical order and by grouping of points
- texts that combine words and pictures, such as films, interactive games and web texts
- searching for information in books, magazines and web sites for children
- criticism of sources, how the sender of a text influences content

in school years 4-6

- reading strategies to understand and interpret texts from various media, and to distinguish between explicit and implicit messages in texts
- how to use dictionaries and other aids for spelling and understanding word
- (various types of narrative texts mentioned)
- narrative text messages, language characteristics and typical structures involving parallel action and flashbacks, descriptions of settings and persons, as well as dialogues
- (various types of non-fiction texts: content, structure and typical language features)
- information in some different media and sources, such as reference books, from interviews and via internet search engines
- how to compare sources and examine their reliability from a critical standpoint

¹¹ See: www.enlasandeklass.se.

in school years 7-9

- reading strategies to understand, interpret and analyse texts from different media, identifying messages in texts, themes and motives, as well as their purpose, sender and context
- dictionaries and other aids for spelling and understanding word
- descriptive, explanatory, investigative, instructional and argumentative texts, such as newspaper articles, scientific texts, tasks descriptions and blog entries, the purpose, content, structure and language elements of texts
- texts which combine words, pictures and sound, and their language and dramaturgical components. How expressions can interact with each other, such as in television series, theatrical performances and web texts
- searching for information in libraries and the Internet, in books and the mass media, and also through interviews
- how to sift through a large amount of information and examine the reliability of sources with a critical perspective

Literacy curricula in secondary schools

Literacy is part of the Swedish language sector but also addressed in the overall aims for both lower and upper secondary schools, (including vocational training). The curricula for the compulsory school (and years 7-9) states that "(l)anguage, learning, and the development of a personal identity are all closely related. By providing a wealth of opportunities for discussion, reading and writing, all pupils should be able to develop their ability to communicate and thus enhance confidence in their own language abilities (Curriculum for the Compulsory School, Preschool and the Recreation Centre, 2011).

The curricula for the upper secondary school (including vocational training) states that it is *the responsibility of the school* that all individual students:

- can use non-fiction, fiction and other forms of culture as a source of knowledge, insight and pleasure,
- have the ability to critically examine and assess what they see, hear and read in order
- to be able to discuss and take a view on different issues concerning life and values
- can use books, library resources and modern technology as a tool in the search for
- knowledge, communication, creativity and learning.

In the guidelines for teachers, the curricula of both the compulsory school and of the upper secondary school states that it is *the responsibility of teachers* to organise and carry out work so that students, among other things, receive support in their language and communicative development (Curriculum for the upper secondary school, 2011).

Literacy is most explicitly part of the language sector and the subject Swedish and Swedish as a Second language. The aim for Swedish in the lower secondary school and the compulsory school is that teaching "should stimulate pupils' interest in reading and writing. Through teaching pupils should be given the opportunity to develop their knowledge of how they can express their own views and thinking in different types of texts and through various media". The essence of the subject is to give the students opportunities to develop their ability to:

- express themselves and communicate in speech and writing,
- read and analyse literature and other texts for different purposes,

- identify language structures and follow language norms, and,
- search for information from different sources and evaluate these.

The core content of the subject Swedish for year 7-9 has five content areas: Reading and writing, Speaking, listening and talking, Narrative texts and non-fiction texts, use of language and Searching for information and critical evaluation of sources. The content area of Reading and writing includes reading and writing strategies (Curriculum for the Compulsory School, Preschool and the Recreation Centre, 2011).

Advanced literary skills, as well as digital literacy, are part of the curriculum in Swedish. Literacy is not an independent part of the curriculum but rather part of the overall aims and guidelines, as well as part of the subject curricula. In Upper Secondary Education in Sweden students enroll in different programmes – either theoretical or vocational. Each programme has exam goals. Competences that are to be developed in relation to these goals are for example:

- Being able to present results in a written report which fulfil the basic demands of the genre when it comes to language correctness and formal structure, or, if relevant in a media production or in another appropriate form. (Social Science Program)

4.2.3 Reading Instruction

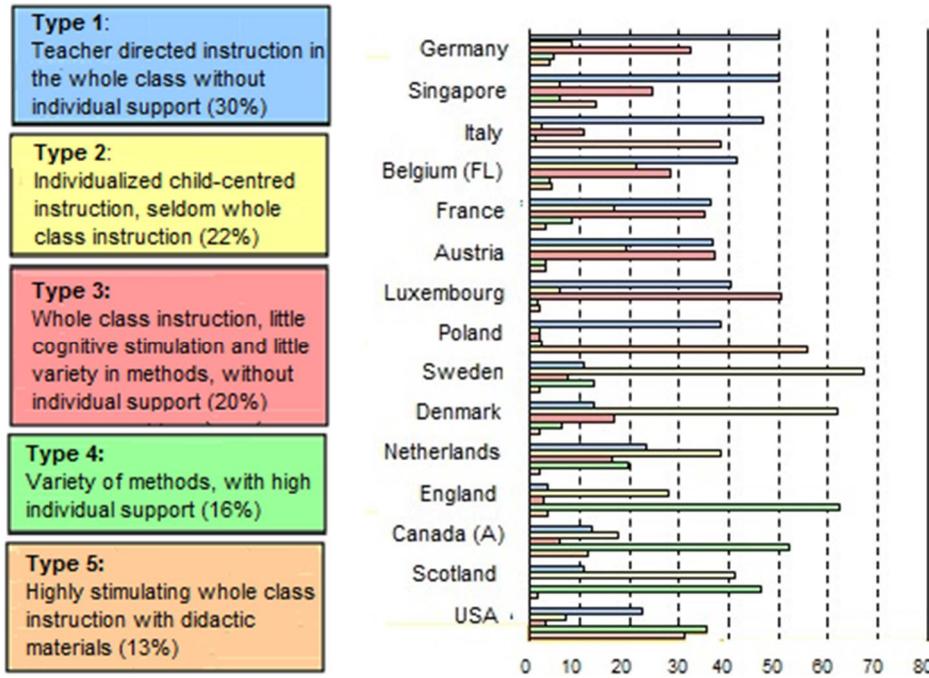
While most literacy researchers have clear concepts about effective literacy instruction, we do not know much about what is actually going on in classrooms in Sweden or other European countries. In order to describe the practice of reading instruction we would need extensive observational studies. There is a noteworthy shortage of data on actual reading instruction in school. Only PIRLS offer some data for primary schools, albeit based on self-reports by teachers (PIRLS) which might not be valid and may be biased by social desirability.

In PIRLS 2006, fourth-grade reading teachers reported about instructional materials, strategies and activities. In a latent class analysis Lankes and Carstensen (2007) identified 5 types of instruction:

- Type 1: Teacher-directed instruction in the whole class without individual support
- Type 2: Individualised child-centred instruction, seldom whole-class instruction
- Type 3: Whole-class instruction with little cognitive stimulation and little variety in methods, without individual support
- Type 4: Variety of methods with high individual support
- Type 5: Highly stimulating whole-class instruction with didactic materials.

There were significant differences between countries concerning these types of instruction (Lankes and Carstensen 2007). Also, the analysis of PIRLS 2011 teacher self-reports revealed differences between the approaches to reading instruction in European countries (Mullis et al. 2012a, Tarelli et al. 2012). PIRLS 2006 data for a latent class analysis Lankes and Carstensen (2007) identified in Sweden mainly type 2 instruction in fourth grade: individualised child-centred instruction.

Figure 3: Distribution of types of Reading Instruction (PIRLS 2006 data)



Source: Adapted from Lankes & Carstensen 2007

In PIRLS 2011, principals and teachers provided some information on language and reading instruction. Concerning the **instructional time spent on language and reading**, the following results are of interest:

The percentage of instructional time for reading and language is not specified in the national curriculum (Appendix C: Table I4: Instructional Time Devoted to Language/Reading Curriculum by Country) and this is also the case in nine other countries across Europe. In Sweden the number of instructional hours per year is 849 hours, which is the same as the EU average (849 hours)¹² (Appendix C, Table I3). In disaggregating the hours, 223 hours is spent on language instruction, which is below the EU average (241), and, of these, 75 hours is spent on reading instruction which is above the EU average of 68 hours. In Sweden, teachers report that 154 hours are spent teaching literacy across the curriculum, while marginally higher than the EU average of 147 hours.

No comparable data are available for secondary schools.

As pointed out above (4.2.3), among adolescents, there are remarkable gaps in reading achievement - equivalent to almost three years of schooling - between students with good knowledge of reading strategies and those who have a limited knowledge of strategies, including metacognitive ones. There is a similar gap concerning the level of engagement. In view of these results, it is of interest to look at the reports of teachers concerning reading strategies and engagement.

In PIRLS teachers were asked which activities they use to develop students' reading comprehension skills. These are the figures based on the report of reading teachers in PIRLS 2011:

¹² Care should be exercised in interpreting these data for Sweden, as, response rates were available for only 50 to 70% of students.

Percent of students whose teachers ask them to do the following daily or almost daily:

- Compare texts read with experiences: 11.5% (EU avg. = 35%)
- Compare what they have read with materials in other texts: 2.3% (EU avg. = 22%)
- Identify main ideas of what they had read: 18% (EU avg. = 55%)
- Explain or support their understanding of what has been read: 18% (EU avg. = 62%)
- Make predictions about what will happen next in the text: 8% (EU avg. = 22%)
- Make generalisations and draw inferences: 6.9% (EU avg. = 36%)
- Describe the style and structure of the text: 2.5% (EU avg. = 23%)
- Determine the author's perspective and intention: 1.5% (EU avg. = 21%)
- Locate information within the text: 43% (EU avg. = 66%)

Source: PIRLS 2011 database. See Mullis et al. 2012a, Exhibit 8.8, p. 226 for data for 'at least weekly', s. also Table I.1 in Appendix C.

Higher-level strategies tended to be taught far less frequently in Sweden than on average across the EU-24. Fewer students in Sweden were engaged in each strategy on a daily or almost daily basis. According to teacher reports, students in Sweden are engaged in a number of strategies, such as identifying main ideas of what they have read, explaining or supporting their understanding of what they have read, making generalisations and inferences, at a frequency of less than half the corresponding EU-24 average. A few strategies, such as comparing what they have read with other things they have read, describing the style or structure of the text, determining the author's perspective or intention, are practised by considerably low proportions of students in Sweden.

In PIRLS 2011, teachers were asked a series of questions designed to ascertain the extent to which students are engaged in learning. These included: "I summarise what students should have learned from the lesson"; "I relate the lesson to students' daily lives" and "I use questions to elicit reasons and explanations". Based on a scale summarising frequencies across all six items, 47% of students in Sweden were deemed to be taught by teachers who implemented instructional practices to engage learning in "most lessons". The corresponding EU-24 average was 70% (Appendix C, Table I2). These findings, together with those based on frequency of student engagement in reading comprehension strategies suggest relatively low levels of reading engagement in classrooms in Sweden.

PIRLS also examined engagement in reading lessons from the perspective of students (for an overview of responses in Sweden and other European countries, see Table I.7 in Appendix C).

- 44% of students in Sweden 'agree a lot' that they like what they read about in school. This is just below the corresponding EU-24 average of 46%.
- Just 30% of students in Sweden 'agree a lot' that their teacher gives them interesting things to read, compared with 48% on average across EU countries.

Students in Sweden had a mean score of 9.5 on a scale measuring overall student engagement in reading lessons. The average across EU countries is 9.9. A score above 10.5 can be interpreted as indicating that students are 'engaged', while a score of between 7.4 and 10.5 indicates that students are 'somewhat engaged'. Hence, students in Sweden, and on average across the EU-24 are 'somewhat engaged' in their reading lessons, with room for improvement.

4.2.4 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 unrecognized 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, and to administer regular tests based on these standards, to allow for identification of struggling readers/writers (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.

There are national exams in Swedish/Swedish as Second Language at grades 3, 6, 9 (ages 9-10, 12-13, 15-16) as well as in high school. Aim of the exams is to make assessment equal and provide a support for teachers in their work (The Swedish National Agency for Education, 2014).

National tests aim to support an equivalent assessment and grading in compulsory and upper secondary school. In compulsory school, Sami schools and Special needs schools, the national tests are called subject tests, and in upper secondary school they are called course tests. The national tests can also contribute to giving a background for an analysis of the extent to which the knowledge requirements are fulfilled at school level, at education provider level and at national level. The national tests are carried out in school years 3, 6 and 9 in compulsory school, and in Grade 1 and 3 in upper secondary school.

The national tests can contribute to concretising the course syllabi and subject syllabi and thereby support increased goal achievement for the pupils. The national tests are not diploma tests, but shall be a part of the teachers' collected information about a pupil's proficiency. It is the Government that decides in which subjects, school years and school types the national test shall be carried out. The national tests have, above else, a summative function. This means that they shall function as a coordination point at the end of a school year or a course, and show which qualities the pupil has in their subjects/courses in which the tests have been carried out.

The tests can even be used as a part of the assessment for learning. The test results give good information about which proficiencies show strengths and which proficiencies the student needs to develop further through education. In this way, the tests also serve a formative function. The tests can, in addition, give a picture of how the education has functioned, which in turn can give information about how the education can be developed both on a school level and on the national level.

The National Agency for Education works continually with developing assessment support material in the form of mapping and diagnostic material, tests and individual assignments with accompanying assessment directions and discussion material. There is also general support material around assessment and grading.

Monitoring primary students' progress in reading

In PIRLS 2011, teachers were asked how much emphasis they placed on specified assessment tools to monitor students' progress in reading. Table 22 shows that 83% students in Sweden, and 84% on average across the EU-24, placed a major emphasis on evaluation of student work to monitor their progress in reading. However, fewer students in Sweden (30%) were taught by teachers who placed a major emphasis on use of class tests or national or regional achievement tests, compared with the corresponding EU-24 average (51%). A greater percentage of teachers in Sweden (54%) placed a major emphasis on use of national or regional achievement tests compared to the EU-24 average (25%), while only 4% were taught by teachers who placed little or no emphasis on the use of such tests. By contrast, 51% of teachers in the EU-24 place a major emphasis on classroom tests to monitor progress while the corresponding figure in Sweden is 30%.

Table 22: Percentages of Students with Teachers Reported Placing Varying Levels of Emphasis on the Use of Specified Tools to Monitor Students' Progress in Reading – Germany and EU-24 Average

	Sweden			EU-24		
	Major Emphasis	Some Emphasis	Little/No Emphasis	Major Emphasis	Some Emphasis	Little/No Emphasis
Evaluation of student's ongoing work	83	17	---	84	16	1
Classroom tests (e.g., teacher-based tests)	30	58	12	51	45	5
National or regional achievement tests	54	42	4	25	52	24

Source: PIRLS 2011 database (see Appendix C, Table I8)

The larger emphasis on national or regional tests in Sweden is related to the national emphasis on testing and availability of materials.

Sweden monitors and assesses students in compulsory school through a system of national tests, diagnostic materials, and written reports with individual development plans and grades. Designed by the National Agency for Education, the national tests provide support for teachers in monitoring student progress according to the curriculum and syllabus. The tests also provide support for teachers in assigning grades and applying the curriculum and syllabus. The National Agency for Education also provides diagnostic materials, tests, and individual test items that are intended to highlight individual student strengths and weaknesses, help teachers monitor student progress, and make impartial judgments.

At all grade levels, teachers are required to present written reports on student progress in each subject (Mullis et al. 2012b, Vol.2, p. 649). If a teacher, a student, a parent, or any other school staff member

believes that a student will not be able to reach the national goals, the school investigates the student's need of special support (Mullis et al. 2012b, Vol.2, p. 646).

Identification of struggling literacy learners

The National Curriculum states that all who work in the school should be observant of and support pupils in need of special support, and that teachers ought to take each individual's needs, circumstances, experiences and thinking into account. They should also stimulate, guide and give special support for pupils with difficulties (The Swedish National Agency for Education, 2011a). Struggling readers are identified both through the continual assessment of teachers, national tests and diagnostic tests of different kinds. The national tests in Swedish are obligatory. Schools are however free to use diagnostic tests of choice.

There also exists material that helps teachers to systematically assess pupils' Swedish or Swedish as Second Language abilities, such as *Nya språket lyfter!*, which is aimed for assessing pupils in grades 1-6 (7-13y). (The Swedish National Agency for Education, 2012). 'Nya Språket Lyfter!' ['The Language Lifts Off!'] is an extensive, research-based resource, with informal tests and observations carried out together with the pupils (school years 1-6), so that each pupil can follow his/her own development. The material includes background texts and a manual for teachers, apart from the tests and fill-in tables. It is aimed at *all* students, not only those who have potential problems.

A resource parallel to 'Nya Språket Lyfter!' for school years 7-9 is published by the NAE: 'Språket på väg' ['Language is on its way']. It is constructed in the same way.

In 2014, The Swedish Council on Health Technology Assessment (SBU) published a report *Dyslexi hos barn och ungdomar – tester och insatser*, which was commissioned by the Swedish government. The report is a study on the tests used to discover children with dyslexia as well as on what type of efforts have effect. The general results were as follows:

- If children with dyslexia get to practise the connection between phonemes and graphemes in a structured way, their reading ability, spelling, reading comprehension, reading speed and ability to observe the phonetic structure of language improves.
- It is not possible to present other forms of reading - and writing practices or alternative tools (tools used to support, compensate and develop reading ability, for example applications for mobile phones). The methods are inadequately evaluated.
- There are tests that can predict dyslexia before the children are taught to read and write in school. A lack of phonological awareness, quick automated denomination as well as good knowledge of letters each have bearing on dyslexia.
- The use and eventual risks with early testing has not been evaluated in this report. Specific efforts directed towards struggling children before they receive reading-training have not been evaluated.
- More than 50 different tests are used in Sweden to discover and investigate children with dyslexia. None of these tests have been scientifically evaluated, e.g. studies that examine the reliability of these are lacking.

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. Based on a question that class teachers

answered in PIRLS 2011, it is estimated that 17% of students in Fourth grade in Sweden are considered to be in need of remedial reading instruction. It is also estimated by teachers that 12% are in receipt of remedial reading instruction (Appendix C, Table K1). These figures are similar to the average across EU-24 countries (18% of students in Grade 4 are identified by their teachers as being in need of remedial teaching, while 13% are identified as being in receipt of such teaching).

In Sweden, 15% 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 Sweden estimated to be in receipt of remedial reading instruction (12%) is slightly below the percentage who performed poorly on PIRLS, suggesting that not all children in need of remedial support in reading receive such support when they need it.

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.

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, 24% of students in Sweden are in classes where there is always access to specialised professionals to work with students who have reading difficulties, compared with an EU-24 average of 25% (Table 8.19). Nine percent of students in Sweden are in classrooms where there is access to a teacher aide with the same frequency, while only 1% are in classrooms where there is access to an adult/parent volunteer. Corresponding EU-24 averages are 13% and 3%. Hence, teachers in Sweden had marginally less access to specialised professionals, and less access to teacher aides and adult volunteers.

Table 23: Percentages of Students in Classrooms with Access to Additional Personnel to Work with Children with Reading Difficulties, Sweden and EU 24 Average

Access to...	Sweden			EU-24 Average		
	Always	Sometimes	Never	Always	Sometimes	Never
Specialised professional	24	67	98	25	42	33
Teacher aide	9	54	37	13	34	53
Adult/parent volunteer	1	11	88	3	18	80

Source: ELINET PIRLS 2011 Appendix C, Tables K2-K4.

According to responses provided by teachers in PIRLS 2011, 91% of students in Sweden 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 24). The corresponding EU average is higher at 55%. Twenty-two percent of students in Sweden are in classes whose teachers wait to see if performance improves with maturation – less than the EU-24 average of 37%. Almost all students in Sweden (95%) are taught by teachers who spend more time working on reading individually with a student who falls behind – above the EU-24 average (90%). Finally, 99% of students in Sweden and 97% on average

across the EU-24 are taught by teachers who ask parents to provide additional support to a student who falls behind in reading.

Table 24: Percentages of Students in Classrooms Where Teachers Engage in Specified Activities to Support Students Who Begin to Fall Behind in Reading, Sweden and EU-24 Average

	Sweden (Yes)	EU-24 Average (Yes)
I have students work with a specialised professional	91	55
I wait to see if performance improves with maturation	22	37
I spend more time working on reading individually with the student	95	90
I ask the parents to help the students with reading	99	97

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

Supporting struggling literacy learners

In consultation with the parents and the student, the school frames an action plan that describes the student's needs and how the school will meet and evaluate these needs (Tongur, 2012). Many municipalities have established special education teams that offer advice to teachers and parents, in-service training for teachers, and short-term assistance at local schools. In addition, Sweden has regional centres with specialists who can diagnose dyslexia and other reading disabilities and give advice on instructional materials and aids. When students are diagnosed with dyslexia, they have the right to get special assistance in terms of materials, computer programs, and instruction.

The Swedish National Agency for Education (Skolverket) suggests following methods for supporting pupils with dyslexia or other reading difficulties:

- early interventions, they will help to protect the pupil's self-esteem
- computer-based programs
- extra time and care
- encouraging pupils to take risks and achieve the feeling of "I can"
- challenges and a sense of control are to be promoted
- reading for pleasure as a goal and a working tool
- through assisting devices, pupils can achieve their full potential and even improve
- teachers should notice and understand strategies pupils use
- teachers should give one-on-one instruction
- the most skillful teachers ought to work with the least skilled students
- learning activities should be assessed and followed
- cooperation between class and special teacher should be systemized
- organisation of teaching should be adapted according to class sizes

(The Swedish National Agency for Education, 2011b).

Support for struggling readers – a legal right?

Yes. The school law (Skollagen) states that children and pupils' different needs will be taken into account in teaching. The legal rights for struggling students have been sharpened in the new school law from 2010. According to The School Law (Skollagen 2010:800) all students have the right to develop and learn as much as possible. If there is a risk of a student not reaching the intended goals, the student has a right to prompt support in reaching these goals. Effort is also made to compensate for differences in children and pupils' potential, in order to make them benefit from the education (The Swedish Parliament, 2010b).

Article 3 §5 also states that pupils are to be given support by adapting education when the pupil cannot reach the minimum learning goals. Special education is arranged when the pupil can't attend a regular school (The Swedish Parliament, 2010b).

The National Agency for Education provides different kinds of support for schools. Information to parents has also been provided (Skolverket, 2015).

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

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

Sweden requires primary teachers to have a bachelor's degree which takes four years' study, and prospective teachers will have to take a final induction year at a school under the leadership of an experienced teacher as part of their initial education as of autumn 2011. Typically, primary teachers' education routes are through a four-year university bachelor's degree programme in primary education. In ten European countries – Croatia, the Czech Republic, Estonia, Finland, Germany, France, Iceland, Portugal, Slovakia and Slovenia – initial education for primary teachers is at master's level and usually takes five years. In recent years, an increase in the minimum length of initial teacher education can be noted for many countries (European Commission/EACEA/Eurydice 2012, Fig. E2, p. 112). Table 8.14 shows the proportions of Grade 4 students taught by teachers with varying qualifications in PIRLS 2011.

Table 25: Percentages of Students Taught by Teachers with Varying Education Qualifications

	Completed University Post-grad Degree	Completed Bachelor's Degree or Equivalent	Completed Post Secondary Education but not a Degree	No Further than Upper Secondary
Sweden	0	92	6.7	1.5
EU-24	27	53	14	6

Source: PIRLS 2011 Database (see Mullis et al., 2011, Exhibit 7.1, p. 188, and Appendix C, Table J1).

A high percentage of teachers in Sweden (92%) have completed a bachelor's degree or equivalent compared with the EU-24 average of 53%, while the percentage of teachers with a post-graduate degree is 0 % compared with the EU-24 average of 27%.

Around the time of the new curriculum (2011), the government decided to introduce a special certification for teachers, which indicated that all teachers should have a university degree not only in teacher education but also in the subjects that they actually teach (which is not always the case) and in

the age groups for which they were trained. A special unit within the NAE was set up to do the certification and every single teacher had to send in their degrees and diplomas and other merits to be assessed and evaluated. The work is still going on, all employed teachers have not yet received their certification.

For the latest statistics from NAE (published 10 March 2016) concerning this school year (2015/16), see table below. The figures (in per cent) are based on full time occupation, not individuals. The percentage is an average, there are differences in subjects, as some subjects have more certified teachers than others (e.g. Swedish and Maths). Special schools are not included. (Compulsory school F-9; F=Preschool class, 6 year olds)

Type of teachers	Percentage with an NAE certificate	Percentage with a university degree
Preschool	75.8	81.6
Compulsory school (F-9)	72.7	84.8
Upper secondary school	79.1	79.7

Among teachers working in independent schools, 72 per cent have a teacher's exam, whereas the same figure for public schools is 87 per cent.

NAE gives no clue as to how many teachers there are with a post-graduate degree, as they are only interested in pedagogical qualifications.

Among teachers working in independent schools, 72 per cent have a teacher's exam, whereas the same figure for public schools is 87 per cent.

Length of required training of secondary teachers

To be accepted to Teacher Training Education, there are several eligibility requirements which are divided into basic and special eligibility. Basic eligibility is required for all university education. Many educations require further prior knowledge, so called special eligibility. There is also the possibility of being eligible through testing, which is called validation of real competence. This is particularly important for vocational teachers.

The University and University College Council decide which eligibilities areas there shall be. The institutes have the possibility to adapt the eligibility courses within the area eligibilities. If there is special cause, they can decide on exemptions from one or more of the eligibility requirements. They can also increase the requirement after receiving permission from the university and university college council. One example can be given from Karlstad University. To be a teacher in school years 1-3 or 4-6 in compulsory school requires basic eligibility as well as special eligibility corresponding to area eligibility 6 b. Teaching in school years 7-9 as well as upper secondary school requires basic eligibility, special eligibility corresponding to area eligibility 6 c as well as eligibility requirements for the respective education subject.

There are also special eligibility requirements for vocational teacher education. It is then a question of relative vocational skills. In order that the assessments of the applicants' vocational knowledge in a teaching subject shall be equivalent, this is expressed in the form of knowledge criteria.

Compulsory teacher programme 3-4 years

Basic eligibility as well as English B, Natural Sciences A and Social Sciences A (area eligibility 6 a) is required.

The compulsory teacher programme has three possible orientations. Common to all teacher educations are studies in education scientific core (see above) which is more general teaching knowledge, as well as placement studies (VFU) for 60 and 30 university credits respectively. In the compulsory teacher programme is included a depth of study programme in a subject within the education profile. This means planning and implementing an education scientific project which is relevant for the science within the compulsory teacher profession.

Subject teacher programme 4.5-5.5 years

Acceptance requirements vary depending on orientation. There are extra requirements for degrees in Swedish, social sciences and certain practical and artistic subjects.

The subject teacher programme has two eligible orientations, towards teaching in school year 7-9 or in upper secondary school. In addition to orientation, students also choose two or three subjects in which to specialise. The selection of these subjects varies from university to university. Common to all teacher educations are studies in education scientific core as well as VFU (placement studies) of 1 and 0.5 years respectively.

Orientation towards school year 7-9, 4.5 years

Education aimed towards young people in the age group 13-16 years. To be an accredited teacher one must have three subjects in the orientation the teacher will later be teaching. A degree project is done on one of the three subjects, the major subject. The selection of subjects in which to specialise varies from university to university.

Orientation towards upper secondary school 5-5.5 years

The education is for teaching in upper secondary school and adult education. To be an accredited teacher one must have two subjects in the orientation which the teacher will later be teaching. A degree project is done in one of these two subjects, the major subject. The selection of subjects in which to specialise varies from university to university.

Vocational teacher programme 1.5 years

The vocational programme consists of an educational scientific core, that is to say general teaching knowledge and placement studies. To be qualified to train as a vocational teacher, the student needs basic qualifications and qualified and relevant vocational knowledge or tertiary education in the subject in which one will be teaching. The knowledge criteria vary depending upon which vocational programme one chooses (Skolverket, Country Background Report).

Teacher education contains subject studies, pedagogy and methodology, didactics as well as placement studies (practical training) out in schools. The first year, however, the students study a common, so-called 'education scientific core', which is general teacher knowledge:

- grading and assessment,
- development, teaching and special needs education,
- curriculum theory and didactics,

- social relations, conflict management, and leadership,
- evaluation and development work,
- history of the school system, organisation and conditions,
- scientific theory and research methodology.

This module is followed by placement studies (VFU) in a school. The Government now wants to further strengthen the placement studies. Today, most of the student teachers are spread out over a wide number of schools. There are deficiencies in this system, among others that supervision and follow up can suffer. The Government has therefore given notice that they wish to introduce training schools; schools which take a large number of trainee teachers and every pupil teacher will return to the same school during their entire teacher education. Through gathering many students at the same school, an organisation can be built up with more qualified supervisors. It will also be easier for the institutes to follow up the practical period. The Government has now taken the decisions which mean that the pilot scheme can commence.

How each individual education looks therefore varies depends on which orientation the students later choose.

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 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.

The data in table 26 suggest that, compared with the EU-24 average, there is similar emphasis on teaching reading pedagogy in initial teacher education in Sweden (58% of students are taught by teachers who identify it as an area of emphasis), compared with the EU-24 average (59%). According to PIRLS 2011, 13% of students in Sweden are taught by teachers who report both remedial reading and assessment methods in reading as an area of emphasis in Initial Teacher Education, while the corresponding EU-24 averages are 22% and 27% respectively. However, according to an analysis of guidelines for ITE institutions, remedial reading and assessment of reading are not topics in Initial Teacher Training in Sweden (European Commission/EACEA/Eurydice 2011, Fig. 2.5, p. 99).

Table 26: Percentages of Students Taught by Teachers who Reported each of Several Topics to be Areas of Emphasis during Initial Teacher Education – Sweden and EU-24 Average

Topic	Test Language*	Reading Pedagogy	Reading Theory	Remedial Reading	Assessment Methods in Reading
Sweden	81	58	36	13	13
EU-24	74	59	30	22	27

Source: PIRLS 2011 Database (see Mullis et al., 2011, Exhibit 7.2, p. 190 and Appendix C, Table J2 – J3).

Challenge: Initial teacher education needs a compulsory focus on developing literacy expertise among future primary and secondary teachers.

Continuous Professional Development (CPD)

Competence development of teachers is a central instrument for attaining equivalent and high-quality teaching standards. It also aims at strengthening the attainment of national and local goals and develops school activities. In-service training for teachers in Sweden mainly takes place during study days, evenings or students' holidays. Qualifications obtained via competence development are taken into account when determining individual salaries.

Under the Education Act the organiser of education is obliged to ensure that competence development is available for teaching staff. Contract education for this purpose can be purchased from various providers. Higher education institutions and the regional development centres are the primary organisers of publicly funded competence development. Other organisers are the public service company which produces educational broadcasting, the teachers' trade unions, other state authorities inclusive of Higher Education Institutions, and independent educational companies.

The municipalities have funds set aside for competence development of their staff and decide on its scope. The Government can set aside funds for the municipalities and independent schools to support their work on developing the competence of teachers through extra funding to the Swedish National Agency for Education for web-based support material, conferences etc.

Participation in CPD in Sweden

There is no compulsory continuing professional development (in-service training) for teachers which focuses on literacy development in Sweden. However, local authorities can decide that their teachers must attend certain courses or programmes, e.g. "Läslyftet" (Literacy Boost), a comprehensive SPD programme for teachers at all levels. It is, however, up to each municipality – not the Ministry – to decide whether participation should be compulsory for the teachers or not. The municipality can apply for government funding to run the programme.¹³ It is built on the concept of collegial learning and is web-based. All materials are provided free of charge at the NAE website¹⁴. It started during the autumn of 2015 and will be government funded until 2018. The NAE provides an 8-day training course for locally appointed tutors, who are responsible for the programme at the school, at some university, and conferences are arranged for tutors and head teachers. The programme has several modules, all developed by university institutions. The NAE also gives recommendations about how to organise the programme¹⁵. In addition, in order to ensure a continuation of CPD in literacy, the NAE offers education for coaches, in collaboration with the National Centre for the Development of Language and Literacy (NCS). The state shall, by means of the funds made available to the Swedish National Agency for Education, steer activities towards nationally important areas, taking into account that it is the principal organiser of the school that has the responsibility for implementing competence development.

An essential element in the work of The Swedish National Agency for Education is skill development for school staff, and the Agency has the responsibility for the national school head training and for professional development for teachers. In-service teacher training can be optional, or a prerequisite for promotion.

¹³ For next school year, 373 school communities (i.e. municipalities or independent schools) applied for participation in Läslyftet, out of which 300 were admitted, and will get their costs at least partly paid by government funds.

¹⁴ See: <https://lasochskrivportalen.skolverket.se>.

¹⁵ See: www.skolverket.se/kompetens-och-fortbildning/larare/laslyftet.

Even if teachers' competence development since the 1990s has been mainly the school education provider's responsibility, the state has also taken a number of initiatives in the area. In later years the state has made two big investments in teachers' further education through the Teacher Boost 1 and 2. The first teacher boost was launched in 2007 and consisted of an investment of a total of 3.6 billion SEK over four years to increase teachers' subject theoretical and subject didactical competence. The campaign was aimed primarily at qualified teachers, and after approval by their education provider, they received the possibility to study while receiving 80 percent of their salary. Through a special state subsidy, administrated by The National Agency for Education, the school education provider was compensated for the main part of the teacher's salary costs during the time when the teacher was studying. The Agency of Public Management has shown that 95 percent of municipalities were represented in this effort. The evaluation has shown that the participating teachers and their principals consider that they, in a very satisfactory way, have been able to develop both the teaching content and methods as a result of this further education. It is suggested by NAE that the 'boost for teachers' be made a permanent arrangement (Skolverket 2015b).

The Teacher Boost 2 was introduced in 2012, and is aimed at teachers with teaching degrees but who lack accreditation in all the subjects they teach. In contrast to the first campaign, only an incentive subsidy goes to the municipality and the costs for lost income during the study time is mainly a question for the education providers and the individual teachers.

The only general admission requirement for competence development courses is that the teacher is employed at a school. Certain courses, however, can require that participants are teaching certain subjects or teaching within certain sectors of education, but this is not centrally regulated.

Being implemented from the state's side are also large competence development efforts, such as the so-called Boost within mathematics, natural sciences, technology and literacy, which in principle reach all teachers who teach these subjects. It is possible for the responsible municipalities and private schools to receive government funded grants connected with certain demands within the Boosts for mathematics and literacy. Literacy will reach all teachers, no matter the subject.

Support by the employer for attending CPD

According to the present collective agreement, 104 hours annually per full-time employed teacher must be allotted for competence development. The time is divided among staff according to need and therefore does not give all individual teachers the guaranteed right to 104 hours further education.

Time spent on professional development related to literacy

No data are available concerning the participation rate of teachers in literacy-related professional development, with one exception: In PIRLS 2011 teachers were asked how much time they had spent on reading professional development in the past two years before the study. The data for Sweden and for the EU-24 average are given in table 8.16. In Sweden, 32% of the students have teachers who spent 16 hours or more (EU-24 average: 18%), 44% had teachers who spent some time but less than 16 hours (EU-24 average 53%), and 23% had teachers who spent no time (EU-24 average 29%) (Mullis et al. 2012a, exh. 7.4, p. 196). These figures show a quite high engagement of Swedish teachers in CPD.

Table 27: Percentages of Students with Teachers Allocating Varying Amounts of Time to Professional Development Related to Reading in the Last Two Years Sweden and EU-24 Average

	More than 35 hours	16-35 hours	6-15 hours	Less than 6 hours	None
Sweden	--	32	44	--	23
EU-24	9	9	25	28	29

Source: PISA 2011 database (see Mullis et al., 2012a, Exhibit 7.4, page 196, and Table J4 in Appendix C).

Is content area literacy (CAL) part of CPD of secondary teachers of all subjects?

Content area literacy is not a mandatory part of CPD of secondary teachers of all subjects. However, the awareness seems to be increasing and literacy is now part of large programmes reaching both teachers of natural sciences and mathematics. The large literacy programme *Läslyftet*, "The Literacy Boost", addresses teachers of all subjects. This programme will address a large number of teachers and schools in the following years (2015-2018).

Several colleges and universities offer courses for teachers on content area literacy. In 2013-2014 the National Agency for Education gave four of them a commission to offer a course for literacy-developers (språk-, läs- och skrivutvecklare) working for the bodies of the schools as well as head teachers (förstelärare). The course was called *Språk i alla ämnen för alla elever*, in English: *Language in all subjects for all students* (Skolverket, 2014).

The modules in the above mentioned national programmes focus both on a general developing of reading comprehension and writing competences. For teachers of subjects other than languages, the focus is on reading and writing for understanding, as well as on developing specific subject concepts.

Is there a national policy that encourages a whole-staff approach, meaning that it not only involves classroom teachers or teachers of mother tongue languages?

The government initiated Literacy Boost which is carried out by the National Agency explicitly encourages a whole-staff approach with both subject-specific modules for teachers of Swedish and Swedish as a Second Language teachers, as well as for teachers of natural and social sciences. There are also several modules encouraging teachers of different subjects to work together collaboratively. Staff in the school library are also included in some modules (www.skolverket/laslyftet).

In the information material directed to the responsible bodies of schools and principals, the responsibility of all is stressed.

Challenge: Improving the quality and participation rates of continuing professional development targeted at building literacy expertise of teachers.

4.2.6 Digital literacy as part of initial teacher education

In the government's proposition concerning a new teacher education (Regeringen, 2010) it is stated that ICT is one of four overriding perspectives that should permeate the whole programme (the others being scientific/critical, historical and international). ICT as an educational resource is a necessary part of a teacher education which is supposed to be in line with the digital development in society as well as schools.

4.3 Increasing participation, inclusion and equity

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

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

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

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

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

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
- Supporting schools with a high number of disadvantaged pupils

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.

4.3.1 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 24.8% Sweden is at the lower end of the distribution.

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). At 7.3% Sweden is almost in the middle of the distribution. 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).

Mother's education level

The PIRLS 2011 database offers information about mother's level of education referring to ISCED levels. The figures for Sweden are presented below and point to a high proportion of mothers with a high level of education (ISCED 5) 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: no data are available (0.6%)
- ISCED 1: primary education: 1.7% (5.3%)
- ISCED 2: Lower secondary education: 5.8% (16.7 %)
- ISCED 3: Upper secondary education: 27.5% (36.1%)
- ISCED 4: Post-secondary non-tertiary education: 17.4% (7.1 %)
- ISCED 5B: Tertiary education (first stage) with occupation orientation: 11.3% (9.5%)
- ISCED 5A: Tertiary education (first stage) with academic orientation 34.2% (13.9%)
- BEYOND: 1.9% (10.1%)
- Not applicable: 0.3% (0.9%).

Teenage mothers

According to UNICEF (2001) the percentage of teenage mothers is 6.5 for Sweden. The range 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 Sweden the percentage of children living mainly with a single parent is 14.3%. 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).

4.3.2 Support for children with special needs

“The Swedish educational system is based on the philosophy that all pupils have the same right to personal development and learning experiences. This right is stated in 1 § of the Education Act. The inclusion of all pupils within this principle is crucial and the rights of pupils in need of special support are not stated separately (European Agency for Special Needs and Inclusive Education)¹⁶. Children with special needs get support in mainstream Kindergartens and from extra staff. Children with learning disabilities can attend the compulsory school for pupils with learning disabilities (särskola) as an alternative to the compulsory school.

Educational support is often provided within general education by making teaching adjustments. Support is given through various means, for example:

- all pupils in need of special support have written action plans of provision set up in co-operation with the pupils themselves, parents and professionals involved;
- the teachers of the pupil are consulted by a specialist teacher;
- a specialist teacher or assistant helps the teacher or works with the pupil concerned for longer or shorter periods within the frames of the activities of the larger group;
- the pupil receives teaching materials adapted for his or her needs;
- the pupil leaves the larger group for limited periods to work with a specialist teacher;
- a classroom assistant works with the pupil in need of special support or in the class of the pupil concerned;
- the pupil in need of special support works in a group for pupils with similar needs for longer or shorter periods within the same organisation;

(European Agency for Special Needs and Inclusive Education, 2013)

4.3.3 Promoting preschool attendance, especially among disadvantaged children

According to European Commission/EACEA/Eurydice/Eurostat (2014, Figure C1 p.62), the enrolment rate at age 4 is 95.3%. Sweden reaches the European benchmark for at least 95% of children between age 4 and the start of compulsory education participating in ECEC (for an overview of European countries see table C1 in Appendix B).

OECD Family Database (2014) offers more differentiated figures of participation rates at age 3, 4 and 5. According to 2010 statistical data, the participation rate is 94.7% for 5-year-olds, 93.6% for 4-year-olds,

¹⁶ <http://www.european-agency.org/country-information/sweden/national-overview/special-needs-education-within-the-education-system>.

and 90.4% for 3-year-olds (OECD 2014) (for an overview of European countries see table C2 in Appendix B).

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. 2012a).

PIRLS 2011 (Mullis et al. 2012a, 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: 74% (average reading score 551)

Between 1 and 3 years: 20% (average reading score 536)

1 year or less: 2% (no data are available)

Did not attend: 3% (average reading score 517)

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

4.3.4 Provisions for preschool children with language problems

Literacy competence strongly builds on oral language proficiency, word knowledge, and syntactic knowledge. Measures must be taken by governments and institutions to ensure that children with poor language development (second-language speaking children and those from a low socio-cultural background, as well as others who experience difficulty in learning language) acquire adequate levels of oral language in kindergarten, preschool institutions and in school. It should be ensured that at age 4 at the latest all children are diagnosed in their oral language proficiency, and that there are obligatory courses for children falling behind in their acquisition of language competence. The aim should be that all children entering school can speak the language of the school so that they can profit from reading instruction.

According to Webgate, teachers in the pre-primary class (*förskoleklass*) regularly monitor pupils' progress, but there are no formal regulations on how this is done¹⁷.

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

Students with immigrant background are supported to improve their subject knowledge parallel to their skills in Swedish. A starting point for immigrant students' education is that they will get to attend a regular classroom as soon as possible. This, however, requires adequate language capabilities. Thus it has been proposed that for one year, Swedish or Swedish as Second Language is prioritised ahead of one or more subjects (and learning time is taken from those) so that pupils can develop their language abilities, but still do not miss the chance of catching up with subject knowledge later (The Swedish Government, 2013).

The organisation of teaching for immigrant students varies across municipalities. Sometimes language homogenous classes are organised, to better combine mother tongue and subject instruction. In other approaches, education is organised in mixed groups to advance immigrant students' integration. There are also examples, where the reason of immigration determines the organisation of education. Some municipalities organise preparatory classes in specific schools in order to take a better use of resources. Some municipalities organise preparatory classes in various schools to avoid stigmatisation (The Swedish Government, 2013).

¹⁷ https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Sweden:Assessment_in_the_Pre-Primary_Class.

Immigrant pupils arriving in Sweden are assessed based on their skills so that a decision can be made on which grade they should attend and what kind of support is needed. Many municipalities also organise preparation classes for immigrants. There aren't any regulations concerning those, but municipalities have adapted the regulations of special educational groups (The Swedish Government, 2013). According to the Education Act, immigrant pupils are also entitled to get study information and counselling in their mother tongue at all levels (not always realised due to lack of interpreters).

Youth who are sixteen years old or older have a right to take part in 'education for immigrants' as stated in the School law (The Swedish Parliament, 2010b). Aim of the education is to provide participants with Swedish language abilities and improve their initial reading and writing abilities, when necessary. Education for immigrants is organised in such a way that it can be combined with other school forms (The Swedish Parliament, 2011a).

Tuition of pupils' everyday language or mother tongue is also to be given (The Swedish parliament, 2010b). School administrators are obliged to organise mother tongue instruction if 1) at least five pupils of the same language so wish it, and 2) there is a teacher for that language. Part one (five pupils) does not apply to national minorities, i.e. Finnish, Yiddish, meänkieli (Tornedalian Finnish), romany chib and Sami (The Swedish Parliament, 2011b). In addition, tuition of specific subjects in the pupils' mother tongue can be organised, when necessary (The Swedish Parliament, 2010a; The Swedish Parliament 2011b).

One problem is that many pupils with a mother tongue other than Swedish are less likely to get into upper secondary school, because they fail the national assessment tests in school year 9 and therefore do not get high enough grades. In 2014, only 27 per cent of the pupils who had arrived in Sweden during the previous four years achieved the necessary qualifications for upper secondary school. The NAE (Skolverket, 2015b) writes that part of the reason is that the education providers in many cases are unable to meet these pupils' needs and offer them proper guidance.

Challenge: Support for migrant children and adolescents. The challenge today is to provide all 'new Swedes' with proper education at the level they need. There is a lack of interpreters, lack of mother tongue teachers, lack of teachers of Swedish as a Second Language, not enough pre-schools or classrooms, etc.

4.3.6 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 related to basic functional literacy.

The duration of compulsory school in Sweden is currently 9 years. Children start school at the age of 7; compulsory school ends at 16 years (EURYDICE, 2014). It is the duty of the municipalities in Sweden to ensure that the student does not leave school early.

According to the Eurostat, in Sweden, the rate of early school leavers was 7.1% in 2013. Slightly down from 7.5% a year before. The target value of the early school leaving (ESL) rate set for 2020 is under 10%. As concerns students (ISCED 1-6) aged 15-24 years, we find that in Sweden, 64.9% of 15-24 year olds were in some form of education in 2011, which was above the average EU-27 value of 61.9%. This indicator is on a slightly decreasing trend: by 2012 it stood at 63.5. (Eurostat, 2014)

Girls and boys tend to drop out or take a break from their studies to roughly the same extent. It is markedly more common that students interrupt their studies or take a study break after having begun their studies in the introductory programme than the national programme in upper secondary school, 14% compared to 2%.

Under the heading Open Comparisons (OC), the Swedish Association of Local Authorities and Regions (SALAR) has increased the access to comparable information on quality, results and costs within areas (including schools) for which Swedish local authorities and regions are responsible. The aim is to stimulate comparisons and to contribute to a greater openness concerning results and costs. The starting point is that systematic and open comparisons stimulate an increased efficiency and strengthen the control of activities. The comparisons also serve to spur the ambition to obtain a better result and to show good examples of practice. Open comparisons of both compulsory and upper secondary school are published every year. They include information on results, completion rates and transition to the labour market. In 2011, a special OC with a focus on ESL was carried out. The report also includes a study on success factors to reduce ESL (European Commission, 2013, p. 36).

In Sweden, in 2011, at upper secondary level, general education and vocational pathways have been further differentiated. To reduce the number of students who fail to complete upper secondary school and improve transition from school to work, since 2011 more time has been devoted to vocational subjects in the vocational pathway (Education and Training in Europe 2020, p. 26). Apprenticeships were introduced as an alternative route for students to attain the vocational diploma. In addition, since August 2011 the Government has provided special incentive funds for school heads to further develop workplace-based learning. The organisers receive a subsidy to provide upper secondary apprenticeship programmes. In January 2013, the portion directed at the employers has been raised by SEK 15 000 to a total of SEK 30 000 per student per year to encourage additional workplaces to offer apprenticeships (Education and Training in Europe 2020, p. 96).

The Government is investing in strengthening guidance and careers counselling. The Government has set aside SEK 10 million for 2013, primarily for further training guidance and careers counsellors and calculates SEK 26 million for the same purpose for 2014-2016. In addition, the Government intends to develop further training measures for guidance and career counsellors at upper secondary schools, focusing in particular on how to help young people with disabilities gain a foothold in the labour market, and focusing on the various kinds of support young people can obtain from different authorities (Education and Training in Europe 2020, p. 28).

In Sweden, the Government has given a task to a special investigator to propose measures how to decrease the number of young people aged between 16 and 25 who are not in employment, Education and training (NEET). The final report was submitted in October 2013 (Education and Training in Europe 2020, p. 95).

4.3.7 Supporting schools with a high number of disadvantaged pupils

Pupils who haven't achieved grade "Pass" in the relevant subjects in compulsory education are directed to an individual programme. The individual programme is based on students' needs and can vary greatly both in terms of length and content. The aim of the individual programme is to enable a student to start education on courses in a national programme at the same time as having the opportunity to study one or more of the subjects from the compulsory school where necessary. Municipalities also ensure that most students get to attend the upper secondary school program they

applied for. In addition, it is fairly easy for students to change their study programs. (Båvner et al. 2011).

There is also a school inspectorate, which aims to ensure good quality teaching in a safe environment for all pupils (The Swedish School Inspectorate, 2014).

In spring 2014, the government published a proposition, in which they state their strategy for building a strong workforce. According to the strategy, the school sector will receive a great investment. Devotion to: improve teachers' competence, reducing class sizes, providing reading assistance for all students, employing more special teachers and extending summer schools will leave more time for knowledge and give better opportunities for all students to achieve good results at school (The Swedish Government, 2014).

[Measures are taken, see Böhlmark et al (2015): School choice and segregation, and Skolverket (undated) Educational equity in the Swedish school system, Summary of report 374; OECD (2015) Improving Schools in Sweden.]

4.3.8 Addressing the gender gap among adolescents

In Sweden, equality and equality among sexes are considered a central part of school life. The school law calls for equality among all people – and requires that all people working in schools shall contribute to advancing the realisation of human rights and prevention of all discrimination (The Swedish Parliament, 2010b).

Also the läroplaner, or curricula, speak for gender equality. For example, the national curriculum states that equality among men and women is one of the values a school must actualise. Schools should also actively and consciously further equal rights and opportunities for men and women, and teachers should ensure that boys and girls have equally great influence over and scope in the education (The Swedish National Agency for Education, 2011a).

However, gender differences are not taken into consideration in all subject curriculums, and Swedish, for example, does not state anything on the matter (The Swedish Government, 2010).

Other steering documents do not state anything on this either, but the National Agency for Education in Sweden has published some material on the topic, for example a book called Undervisning för flickor - undervisning för pojkar. eller. undervisning för flickor och pojkar? (Education for girls – education for boys, or, education for girls and boys?) and on their webpage, there are several articles about the gender gap and its possible causes.

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