



LITERACY IN GREECE

COUNTRY REPORT

CHILDREN AND ADOLESCENTS

March 2016

This document has been published by the European Literacy Policy Network (ELINET).

The report was completed in 2016.

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Main authors (in alphabetical order):

Christine Garbe, Dimitris Koutsogiannis, Dominique Lafontaine, George Manolitsis, Gerry Shiel, Eufimia Tafa, Renate Valtin

Contributing authors (in alphabetical order):

Stavroula Antonopoulou, Valeria Balbinot, Elissavet Chlapana, Eithne Kennedy, Panagiota Papoulia-Tzelepi, Maria Pavlidou, Franziska Pitschke, Helin Puksand, Giorgio Tamburlini, Anne Uusen, Corina Volcinschi, Christine Wagner

Coordinator of the ELINET-Project:

University of Cologne

Prof. Dr. Christine Garbe

Institut für Deutsche Sprache und Literatur

Richard-Strauss-Str. 2

50931 Köln – Cologne

Germany

christine.garbe@uni-koeln.de

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1 Introduction

This report on the state of literacy in Greece is one of a series produced in 2015 and 2016 by ELINET, the European Literacy Policy Network. ELINET was founded in February 2014 and has 78 partner organisations in 28 European countries¹. ELINET aims to improve literacy policies in its member countries in order to reduce the number of children, young people and adults with low literacy skills. One major tool to achieve this aim is to produce a set of reliable, up-to-date and comprehensive reports on the state of literacy in each country where ELINET has one or more partners, and to provide guidance towards improving literacy policies in those countries. The reports are based (wherever possible) on available, internationally comparable performance data, as well as reliable national data provided (and translated) by our partners.

ELINET continues the work of the European Union High Level Group of Experts on Literacy (HLG) which was established by the European Commission in January 2011 and reported in September 2012². All country reports produced by ELINET use a common theoretical framework which is described here: "ELINET Country Reports – Frame of Reference"³.

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

- Creating a literate environment
- Improving the quality of teaching
- Increasing participation, inclusion (and equity⁴).

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

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

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

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

⁴ "Equity" was added by ELINET.

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

2 Executive Summary

LITERACY PERFORMANCE DATA

Greece participated in IEA's PIRLS (4th graders reading comprehension) in 2001, and has been participating in OECD's PISA (15 year-olds' reading literacy) since 2000. 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.

Greece performed well below the EU average in PIRLS 2001 (524 vs 534 EU-17 average). Similarly in PISA 2012, Greece performed below the EU's average (477 vs 489 EU-average). It showed an increase of its reading performance in 2009 (+9 points), but dropped again (by 6 points). So, a slight increase of the overall reading performance (+3 score points) was observed between 2000 and 2012.

The proportion of students who can be considered as low-performing readers was somewhat higher than the EU countries on average in both PIRLS 2001 (24% vs 20%) and in PISA 2012 (22.6% vs 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 in PISA 2012 has slightly and gradually decreased (by 2%) in Greece between 2000 and 2012. The trend is different for girls (-4.4% of low performers) and boys (+1.3%). The proportion of top-performing readers was lower compared to EU average in both PIRLS (7% vs 10%) and in PISA (5.1% vs 7%).

In PISA 2009, the gap according to the pupils' socioeconomic background was very close to the EU average (91 vs 89 on average), while in PIRLS 2001 the respective gap between Greece and the EU-17 average was somewhat broader (82 vs 73 on average). However, the indices of socioeconomic background are not the same in PIRLS and PISA, so the comparison should be taken with caution. The higher socioeconomic gap among 15 year-olds is potentially linked to the structure of the educational system, in which tracking starts earlier than in most of the countries. Early tracking is known to increase inequity.

In PISA 2009, the gap between native students and students with a migrant background was higher than in EU countries on average (57 vs 38 in EU). The mean score difference between those who always spoke the test language at home, and those who spoke another language was higher (79 vs 54), namely the equivalent of two years of schooling. It should be noticed that the proportion of students who speak another language at home was rather low in Greece in comparison with the EU average, respectively 4.8 and 13.3%.

In Greece, the gender gap (in favour of girls) was close to the EU on average in both PIRLS (21 vs 17) and in PISA (47 vs 44). Whereas girls improved their performance in PISA between 2000 and 2012 (+9 score points), boys' performance slightly decreased (-4 points). The trend was close to what was observed in the European countries on average: girls' performance increased by 5 points; boys' decreased by 5 points.

In conclusion, Greece continuously performed lower than the EU-average. It showed an increase in PISA 2009 but went back to its low initial score in PISA 2012. According to the PISA findings, boys showed a decrease of their performance whereas girls' slightly increased. This result is then coherent with the European pattern. The overall proportion of low-performing readers decreased but it is a

great matter of concern especially among boys: nearly a third of them scored below level 2, a steady number across the cycles. The proportion of girls is lower and decreasing in that category. The spread of achievement in Greece is just above the EU countries' on average. The gap according to socioeconomic status is slightly higher than in the EU on average, which could indicate that the educational system in Greece is less equitable. Similarly, the gap according to migrant status and to language spoken at home is higher, but the results must be taken with some caution: the proportion of students who speak another language at home is rather low in Greece and is not consistent with the percentage of students with an immigrant background.

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

Creating a Literate Environment

Pre-Primary Years

Creating a literate environment at home: On an index of home educational resources in PIRLS 2001, 9% of students in Greece were categorised as having high resources, the majority had 'medium' resources (83%), with 8% of students having 'low' resources. On average across the EU-17, 13% had high educational resources, and 4% had low resources. In Greece, students with 'low' resources achieved a mean score that was 111 points lower than those with 'high' resources. This is slightly higher than the EU-17 average (107). This indicates that the relationship between home educational resources and reading achievement is similar but slightly stronger in Greece, than on average across the participating EU-17 countries.

Number of books in the home: In Greece, students with few/no books at home achieved a mean score that was 56 points lower than the mean score of students who reported having many books at home. This is lower than the average difference across the participating EU countries (70 points). Thus, this indicates that the association between books at home and reading performance is weaker in Greece than across the EU-17. A similar percentage of students in Greece (9%) and across the EU-17 (10%) reported to have fewer than 10 books at home, and a similar but slightly lower percentage of students in Greece (15%) reported to have more than 200 books at home, compared to the EU-17 average (18%) (see Appendix D, Table L.5).

Primary Children and Adolescents

Creating a literate environment in school

Pre-primary: In Greece the National Curriculum for pre-primary education anticipates the provision of a literacy-rich environment in school. According to its guidelines, children should be provided with different literature genres (e.g. narrative and informational texts and poetry), various reading materials (e.g. newspapers and magazines) and samples of environmental print (e.g. street signs, posters, labels, and logos), which help them understand the organisation and the function of written language and improves their literacy skills (Ministerial Decision G 2/21072b FEK. 304/13-3-2003/t.B', p. 594-596).

Primary: Based on data provided by their teachers, PIRLS (2001) shows that 61% of pupils in Greece were in classrooms which had a classroom library or a reading corner – (Mullis et al. 2003, exh. 6.28, p.206; EU averages from PIRLS 2011 database, s. Table H2 in Appendix C). This is lower than the corresponding EU-17 average of 70%; however for about 40% of students, there is no classroom library available. Moreover, classroom libraries counted on average 36 books which is below the respective European average of 56. Additionally, classroom libraries counted on average 4 magazines, a quantity which is almost the same as the European average number of 4 magazines that exist in the classroom libraries across the European countries. Twenty-two percent of students in Greece could spend class time in the library/reading corner at least weekly – about the same proportion as on average across EU countries (22%) (Mullis et al. 2003, exh. 6.28, p.206). Across all classrooms (including those with no library), 29% of students in Greece had teachers who reported that they brought them to a library other than the class library at least once or twice in a month, almost the same percentage as the average of 28% across EU-17 countries (Mullis et al. 2003, exh. 6.29, p.207).

Secondary: Regarding secondary education, PISA 2009 (OECD 2010b, Table IV.3.24, p. 250) show that only 66.6% of students were in a school with a library, significantly lower than the OECD average (89.8%). In 50% of schools, the principal reported a lack of library materials, a significantly higher percentage than the OECD average (29.4%). It is also reported that 17.5% of 15-year-olds never or seldom read for enjoyment outside of school, among those 12% of girls and 24% of boys. On the other hand, it is also reported that Greece is the only OECD country where more than 10% of students read for enjoyment longer than two hours on a daily basis.

Offering digital literacy learning opportunities in schools (and other public spaces, e.g. libraries)

Digital environment of pre-primary students: According to the Cross-Thematic Curriculum Framework guidelines, kindergarten children should be given plenty of opportunities to discuss the utility of the provided Information and Communication Technology (ICT) and its use in daily school activities. Special emphasis is given on the computer use as a didactic tool and as a means which can help children discover new things and express themselves in daily activities. Regarding literacy, the computer can be used for playing computer games related to literacy skills, and for activities related to letter knowledge and/or writing.

Digital environment of primary students: According to teacher reports in PIRLS 2001, 82% of students in Greece had no access to computers in the school environment, a percentage which is significantly higher than the European average percentage of 48%. Among students who had access, 0% attended classes with a computer available in classroom (EU-17 average was 29%) and 17 % had available computers somewhere else in the school (EU-17 average was 50%). Small is also the reported percentage of students who had internet access (Greece 9%, EU-17 average 37%) (Mullis et al. 2003, exh. 6.31, p. 211).

According to a more recent study than PIRLS 2001, the ESSIE study (European Schoolnet and University of Liege, 2012), the ratio of computers to students in Greece at Grade 4 was 16:1, compared to an EU average of 7:1, and a ratio of 3:1 in Denmark, Norway and Estonia. In Greece, there were 50 students per laptop computer connected to the Internet, compared with 20:1 on average across EU countries. In Greece, at Grade 4, more computers tended to be located in computer rooms than in classrooms (70% in Greece, compared with 58% on average across EU countries). The ratio of students to interactive whiteboards in Greece was 500:1, compared with a ratio of 111:1 on average across EU countries. However, just 3% of students in Greece were in schools without broadband access,

compared with 5% on average across EU countries. Teachers in Greece had low levels of experience with ICTS, compared with teachers in other countries. These data highlight the challenges that Greece will face in integrating ICTs into teaching and learning in literacy and in other aspects of the curriculum.

Digital environment of secondary students: The latest 2012 OECD study “Students, Computers and Learning: Making the Connection” (OECD 2015) reports that 65.9% of 15-year-old students in Greece use computers at school (OECD average 72.0%) and only 44.9% of students reported that they browse the Internet at school for schoolwork at least once a week (OECD average 44.9%). In comparison to older survey results, there is an increase in the number of students with access to computers and those students who do school work on computers. This increase can be related to initiatives by the Ministry of Education, Research and Religious Affairs, such as a laptop-acquisition programme in the school year 2009-2010, during which laptops were distributed to every student on the first grade of lower secondary school and 1200 textbooks were digitised in order to be used by the students through their laptops. Moreover, the Ministry also implemented the “Programme of pilot integration of interactive systems and related equipment in the classroom for digitally supported teaching”, during which 800 primary and secondary schools were equipped with digital equipment, such as interactive whiteboards and laptop laboratories. Even though such initiatives were taken, there is still a home-school mismatch, as access to digital environments increases significantly while school does not follow the same pace of developments. Therefore, both the development of a central framework of ICT integration strategy and the sufficient technological equipment for schools is necessary.

Strengthening the role of public libraries: Public libraries in Greece are under the supervision of the Greek Ministry of Education, Research and Religion Affairs and there are 46 in the whole Greek territory. Twentynine of them have moving libraries whose role is to cover the needs of schools which do not have school libraries.

Greek public libraries in general are in charge with an informative and educational role⁶. Furthermore, in the context of public libraries' modernisation, the project entitled “Digitisation of public libraries material” is undertaken. The project aims to transmit knowledge through the use of ICT and enables students of all educational levels to have access to the books and the print materials of the public libraries⁷.

As a result of each library's or each municipality's initiative, public libraries in Greece implement various educational programs which promote reading literacy, such as reading groups, programmes for promoting pleasure for reading (“Philanagnosia”) and book presentations.

Since 2011, a network of public and municipal libraries across Greece, called “Future Library”⁸ has been developed. The network seeks to support the library community to offer innovative services, through workshops, seminars and conferences, access to resources. Various programmes which promote reading, such as reading campaigns⁹, are being implemented by the network.

Improving literate environments for children and adolescents: Programmes, initiatives and examples: The “National Book Centre of Greece” (NBCG) has been tasked with the promotion of reading in Greece, by organising multiple programmes. Such initiatives include author and illustrator

⁶ See: http://www.e-yliko.gr/htmls/libraries/vivl_dimos.aspx.

⁷ See: <http://publiclibs.ypepth.gr/frontoffice/portal.asp?cpage=NODE&cnode=1>.

⁸ See: <http://www.futurelibrary.gr>.

⁹ See: <http://summer.futurelibrary.gr/>.

visits to schools, promotion of reading clubs in schools and libraries, mobile exhibitions and mobile libraries in schools, and others.

Specifically for primary education, the Ministry of Education promoted the programme “Philanagnosia” in schools participating in the United Reformed Educative Program (*Enieo Anamorfomeno Ekpaideftiko Programma* - EAEP), during which specific actions for the promotion of reading enjoyment were held in every grade, as part of the literacy curriculum. On the other hand, in secondary education, all the initiatives regarding fostering of reading are mainly based on teachers' agency or libraries at a local level.

Other initiatives fostering literacy and literature reading can be found in cultural programmes organised by teachers, as part of their school activities, both in primary and secondary education. The themes of those programmes are generally described by the Ministry and include literature laboratories, creative writing clubs, school newspapers and themes of cultural heritage approached by multiple art forms, including literature. Participation in such programmes is optional for teachers and students.

Few initiatives have been undertaken to support the development of students' digital literacy, mainly with a focus on the production of digital learning resources: educational TV, repositories of digital learning objects, or digitisation of existing school textbooks in an interactive form.

All aforementioned programmes were financed by the National Strategic Reference Framework (2007-2013).

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” states: “The quality of an education system cannot exceed the quality of its teachers” (McKinsey et al. 2007).

Pre-Primary Years

Improving the quality of preschool education: According to OECD Family database (2014)¹⁰, the total public expenditure per child in pre-primary education as a percentage of GDP in Greece in 2011 was 0.01%. Greece belongs to the lower end of the distribution. According to the Ministry of Education, Research and Religion Affairs the student/teacher ratio in pre-primary schools for children at the age of four is 12.9, and 1.7% of the pre-primary teachers in Greece are males.

Moreover, in Greece, there are two types of early childhood professionals: (a) the pre-primary teachers (kindergarten teachers) who deal with children at the age of 4 and 5 years old, and (b) the infant-

¹⁰ See: <http://www.oecd.org/els/family/database.htm>.

toddler pedagogues and care providers (vrefonipiokomoi) who deal with children under the age of 4. The kindergarten teachers are educated in Universities following a 4 year Bachelor programme and they can work in public or private kindergartens. The infant-toddler professionals are educated in Higher Technological Educational Institutes following a 4 year higher education programme and they can work in infant-toddler centres and child centres for children under the age of 4. The minimum required level to become a qualified teacher is Bachelor level (ISCED 5). The length of training is 4 years (European Commission/ EACEA/Eurydice/Eurostat 2014, p. 101). There are also a number of early childhood practitioners who are trained for two years either in post-secondary vocational training centres or in vocational high schools (EPAL) with the specialty in early childhood care (this second choice of training assistants ended in 2013). These early childhood practitioners are trained as infant-toddler care assistants and they work in the centre-based day cares. In Greece, the continuing Professional Development for early childhood professionals is not obligatory (Eurostat 2014, pp. 104–105).

Preschool language and literacy curriculum: Fostering the development of emergent literacy skills through playful activities is an important function of pre-school institutions and provides a basis for formal literacy instruction in primary school (Tafa, 2008, 2011). In Greece the kindergarten Cross-Thematic Curriculum Framework is based on the emergent literacy philosophy and highlights that children, through the context of play, should be provided with opportunities for developing awareness of their written language system (Ministerial Decision G 2/21072b (FEK. 304/13-3-2003/t.B', p. 593-597). The curriculum sets goals that help children understand the directional rules of print, that print and not pictures carry the message, that different kinds of print carry messages in different ways and that letters have names and sounds. Children are encouraged to discover very common words in texts and to recognise them in the environmental print. Moreover, children are helped to understand story structure when stories are read aloud to them and to name different kinds of texts. They are also encouraged to write their names, their friends' names, as well as small, frequently used words. In addition, there are goals to encourage children to understand the 'technical' language of literacy (e.g. page number, first line, book title, book cover, etc.), as well as punctuation. In addition, the kindergarten curriculum emphasises the enrichment of the classroom environment with books and reading and writing materials and strongly suggests the use of environmental print

Primary Children and Adolescents

Improving Literacy Curricula and Reading instruction in schools: The curricula of Greek primary and secondary education have been drawn up by the Pedagogic Institute and they are implemented in all schools country-wide. Current curricula fall under the integrated philosophy of the Interdisciplinary Single Curriculum Framework for Compulsory Education (DEPPS). Both in primary and secondary education, reading literacy is an element of the Greek language syllabus. Regarding secondary education, literacy is served by the teaching of: Modern Greek Language; Modern Greek Literature; Ancient Greek Language; Ancient Greek Literature (in the original form and in translation).

Primary education: According to Eurydice's report "Teaching Reading in Europe" (2011), most of the elements regarding explicit instruction of grapheme-phoneme correspondences are included in steering documents. The same applies for reading strategies, although Greek curricula for primary education do not define reading comprehension. According to PIRLS 2001 (Martin et al. 2003), the multiple reading strategies were more frequently taught in Greece than on global average. That is in

line with the emphasis given on reading instruction in the curriculum, as 26% of school time is devoted to reading.

Secondary education: As the Greek educational system treats every subject mostly as an autonomously taught lesson, there is little or no attempt for content area literacy. Not all teachers are treated as literacy teachers, and only language teachers are responsible for the acquisition of literacy competencies. Only a few general guidelines are given regarding cross-thematic literacy abilities that should be acquired in all taught subjects (e.g. communication skills, skills of critical processing of information, and other) along with indicative activities and projects.

Specifically for the language curriculum, its' aims are organised on the axes of the four competences (listening, talking, reading and comprehension, writing) along with indicative concepts for possible interdisciplinary approaches. Each of the general axes also includes a focus on grammar knowledge.

New pilot curricula for the improvement of literacy instruction were implemented in some lower secondary schools. The new curriculum has a special focus on improving reading strategies in order to help students become critical readers. It is organised on the axes of four competencies (comprehension of oral and written language, production of oral and written language), and each of the axes is then organised on basic themes, genres, indicative activities and educative material that can be used. Those new curricula for literacy education remained only on a pilot level and need to be more firmly continued, implemented and supported in all schools.

Regarding upper secondary education, there is no specific curriculum for Modern Greek Language lessons but mostly general instructions, mainly focused on the contents of the obligatory school textbooks. In 2012, new instructions were given for the first year of upper secondary school, with a specific focus on the development of critical reading literacy and digital literacy competencies. Those new Instructions were mandatory for all schools. There are no guidelines regarding content area literacy in upper secondary education.

Although some initiatives have been taken so as to implement new curricula in lower and upper secondary education, with a stronger focus on literacy competencies, those initiatives remained at a pilot level and need to be more firmly continued, implemented and supported in all schools.

Digital literacy as part of the curriculum for primary and secondary schools: In primary and secondary schools, ICT is taught as a separate subject, and is used as a general learning tool for other learning subjects. According to national reports (Centre for the Greek Language 2011), there is a need for increased integration of ICT into literacy lessons. In targets mentioned in literacy curricula, technology is treated as a field of the world to be explored and mainly as a pedagogical medium, such as a means for searching and obtaining information. The perception that ICT are also literacy mediums is not a clear aim of the curricula.

There are some clear efforts to implement digital literacy as part of the newest pilot curricula in lower secondary education and in the Instructions for the Modern Greek Language lessons in upper secondary education. In those steering documents, digital literacy (with critical dimensions) is an important part of language education, as specific educative activities are proposed for the acquisition of digital literacy competencies, and ICT are both considered as pedagogic media and also as media for literacy practices (e.g. reading and writing through digital media).

Although some initiatives have been taken in order to focus more on digital literacy, there is still a need for higher attention on the aspects of critical digital literacy, both on the literacy curricula and the textbooks used.

Early identification of and support for struggling literacy learners: In Greece, there are no official national benchmarks/standards for children's and adolescents' literacy performance. The only means to assess adolescents' literacy achievements is by the OECD's PISA assessment. Assessment constitutes an instrumental element of the teaching-learning process and is the combined outcome deriving from daily pupil participation in lessons, short written tests, hour-long compulsory written tests, homework, assignments and final exams.

There is also no systematic assessment of children in order to identify language development problems. Assessment of language and reading problems is implemented in the local "Centres of Differential Diagnosis and Support (KEDDY's)" which provide diagnoses for the purpose of determining special educational needs¹¹. The centres not only investigate the degree and type of difficulties pupils face, but also provide consultation and information for the teaching staff.

Lower secondary schools run a supportive teaching programme, focused particularly on pupils who face learning difficulties in language learning (and other core subjects). The programme aims to reinforce educational levels of pupils, prevent dropping out and combat social exclusion, as well as social inequalities. Also, Remedial Teaching ("Enischytiki Didaskalia") is applied in primary and lower secondary schools, and additional teaching support ("Prostheti Didaktiki Stirixi") in upper secondary schools.

Based on responses provided by teachers in PIRLS 2001, no (0%) of students in Greece are in classes where the teacher arranges for students falling behind in reading to work with a specialised professional (e.g. a reading specialist or a speech therapist). This is well below the EU average (32%), confirming the relative disadvantage under which schools and teachers in Greece work.

Improving the quality of pre-service and in-service teacher training: Both primary and secondary education teachers are educated in Universities, in four-year bachelor programmes. Pre-service education of primary teachers focuses both on scientific knowledge and pedagogic competencies, while pre-service education of secondary teachers mostly focuses on scientific knowledge. Literacy expertise of pre-service language teachers is examined by entry tests of the Higher Council of Staff Selection (ASEP), which also determines teachers' recruitment. Specifically, for primary teachers, literacy expertise regards: knowledge of the literacy curriculum, basic linguistic concepts, phonological, morphological and grammatical knowledge, composition of written texts and genres, the role of literature in the curriculum. For secondary language teachers, literacy expertise regards: knowledge of the curriculum for ancient Greek language and literature, modern Greek language and Literature and History, basic knowledge of ancient and modern Greek literature, grammar of modern and ancient Greek, hermeneutic ability of texts, and more. Secondary teachers of other taught subjects (maths, science, arts etc) are not examined for their literacy competencies but only for their knowledge around their scientific field. All teachers, either primary or secondary, are examined for their pedagogic competence.

Continuing professional development is optional in Greece. According to information available on Eurypedia, the aims of the in-service education and training of teachers (INSET), in Greece, are the following: teacher training focused on the new curricula in Compulsory Education; teacher training on ways to organise and implement Experimental Actions and Projects, based on the principles of experimental and inquiry-based learning; teacher training specialised in ICT, drama, music, arts and

¹¹ See: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Greece:Special_Education_Needs_Provision_within_Mainstream_Education (Accessed August 27, 2014).

intercultural education, who are employed today in all-day primary schools using a unified and revised curriculum; induction INSET for newly-appointed and substitute teachers - INSET for teachers on the use and application of ICT in the teaching practice.

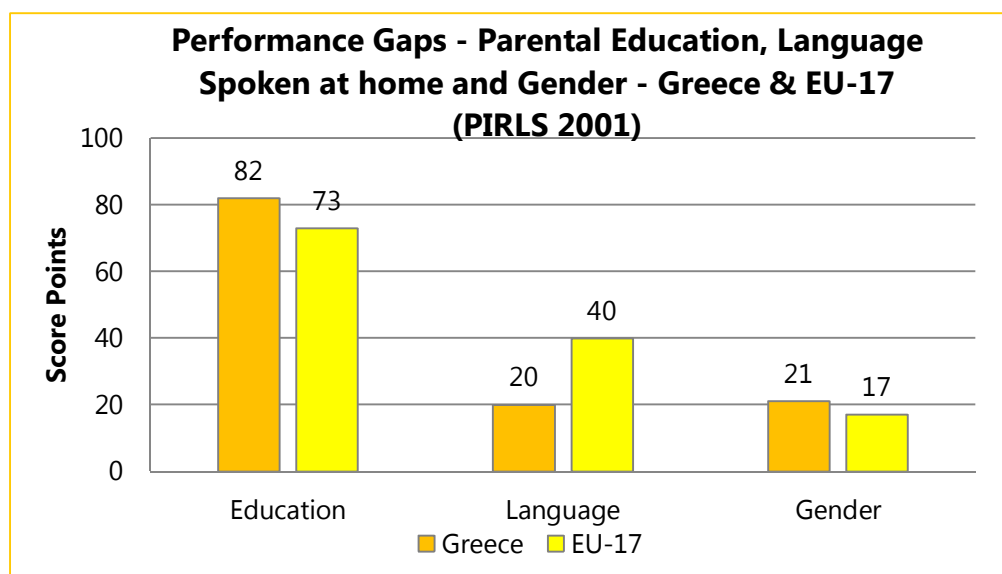
Other in-service training programmes include the *Major in-service Teacher Training Programme*, which focused on innovative features such as group process, implementation of modern educational methods, development of students' "horizontal abilities" transversing all school activities, implementation in authentic learning environments. Another action was the "Teachers' education for the utilisation and implementation of ICT in the teaching process", with its main goal to prepare teachers for the challenges of knowledge and information societies, focusing on the Information Technologies' utilisation and use in the teaching process.

Improving the quality of literacy instruction: Programmes, initiatives and examples: There are not many initiatives regarding the improvement of the quality of literacy instruction, apart from the in-service training programmes mentioned above. There is an increasing attention paid to initiatives for tackling reading difficulties, such as the programme "Screening pupils with learning difficulties – Creation and standardisation of Twelve Assessment Tools" (University of Patras) and the project "Primary and secondary prevention of learning difficulties and speech problems in preschool and school age for all children" (Pedagogical Institute). Those programmes are mostly on a local level, in collaboration with specific schools, rather than on a national level.

Increasing Participation, Inclusion and Equity

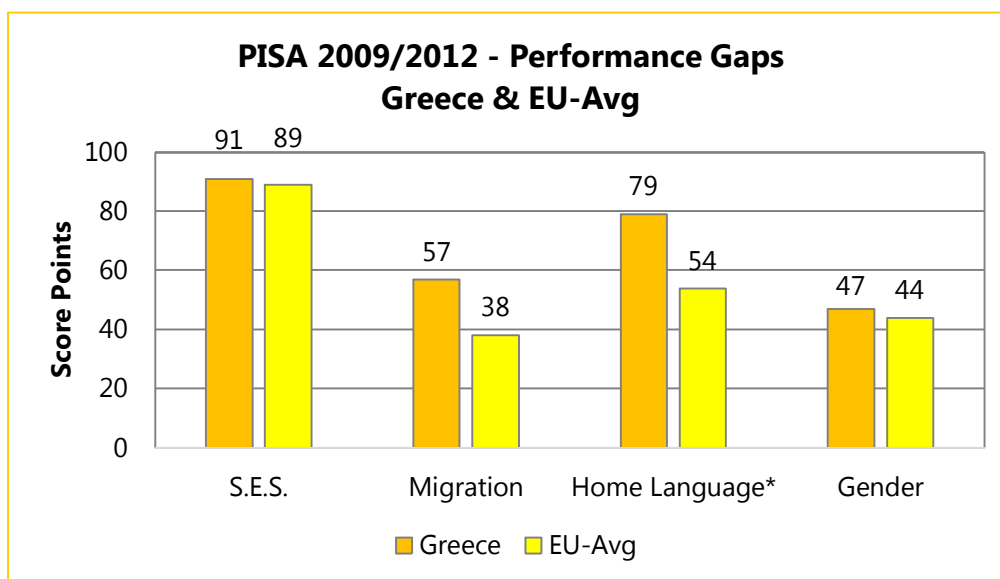
The High Level Group of Experts on Literacy drew attention to persistent gaps in literacy, namely the gender gap, the socio-economic gap, and the migrant gap (HLG Final report 2012, pp. 46–50). These gaps derive from the reading literacy studies that repeatedly show unequal distribution of results among groups of children and adolescents (PIRLS, PISA). Performance gaps in Greece and on average across the EU-24 are shown in Figures 1 and 2.

Figure 1: Performance Gaps – Gender, Education and Language Spoken at Home



Education: Parent has University vs. Lower Secondary/Primary education; Language: Student speaks language of the test at home always vs. sometimes/never; Gender: Girls vs. boys.

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



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

The figures show a close to average socio-economic gap and gender gap on both primary and post-primary level. However, the language gap is quite below-average at primary level but at post-secondary level the gap between native students and migrants as well as second language learners is above average.

Pre-Primary Years

Encouraging preschool attendance, especially for disadvantaged children: The participation rate at age 3 is just 1.7% (based on 2010 data) and at age 4 and age 5 is about 74.6%. The length of pre-school education attendance has a positive effect on reading. In Greece, children who attended 3 years and more had a higher reading score at grade 4 (543) than children who attended between 1 and 3 years (522).

Identification of and support for preschool children with language difficulties: In Greece there is no systematic assessment of children in order to identify language development problems. Assessment of language problems is implemented by multidisciplinary teams operating in the “Centres of Differential Diagnosis and Support (KEDDY’s)” only for children who have been referred by their teachers.

Compensating socio-economic and cultural background factors: Greece has a moderate percentage of pupils who have a migration background (10%) which is close to EU average. About 5% sometimes speak another language than Greek at home. The difference in reading achievement between pupils in Greece reporting that they always or sometimes/never spoke Greek was 72 score points, which is higher than the corresponding EU-24 average difference (52).

Primary Children and Adolescents

Support for children with special needs: In Greece, children with special needs (including students with language problems) get support mainly in mainstream schools, in inclusive classes operating

within mainstream schools and in some cases in special schools (EURYDICE et al., 2014, p. 109). Assessment of children with special needs is implemented by multidisciplinary teams operating in the "Centres of Differential Diagnosis and Support (KEDDYs)" only for children who have been referred by their teachers.

Special Education services are provided for children with special needs when they enter compulsory education (that means from Kindergarten and onwards) and they have been diagnosed by the KEDDYs. These services may include the following: differential diagnosis, diagnosis, evaluation and depiction of the special educational needs, as well as systematic pedagogical interventions with specialised and properly adjusted educational tools and programmes¹². Individualised Education Programmes can be implemented for pupils with special needs, and required technical aids and educational materials can be provided accordingly¹³. Also, additional individualised teaching support ("Parallili Stirixi") in primary and secondary schools is provided for pupils who have severe special needs.

Support for migrant children and adolescents whose home language is not the language of school: In PISA 2009, the gap between native students and students with a migrant background was higher than in EU countries on average (57 vs 38 in EU). The mean score difference between those who always spoke the test language at home, and those who spoke another language was higher (79 vs 54), and is the equivalent of two years of schooling.

Every school unit can establish special reception classes ("Taxeis Ypodoxis") and Tutorial Courses ("Frontistiriaka Tmimata") for foreign pupils who do not possess an adequate knowledge of the Greek language. Such classes can also be organised each year by schools in selected areas on established Educational Priority Zones (*Zones Ekpaideftikis Proteraiotitas* -ZEP). There are two different reception classes; the first one regards intensive language courses, for students with little or no knowledge of the Greek language; the second regards parallel language support during regular classes, for students with average knowledge of Greek. For pupils who haven't participated in reception classes or who still face language difficulties after participating in them, Tutorial Courses, in after school hours, may be offered.

By the virtue of Law 2413/1996, schools with over 45% of the student population being foreign or repatriated were changed into Cross-Cultural ("Scholeia Diapolitismikis Ekpaidefsis") schools. There are 26 cross-cultural schools in Greece (13 primary, 9 lower secondary and 4 upper secondary) which is 5.8% of the total number of schools. These schools adapt their curricula according to pupils' special needs and may have additional or alternative classes, with their priority being lessons on Greek language and culture.

There are also minority (*Meionotika Scholeia*) schools operating in areas with a dense Muslim-Turkish population. In such schools, instruction is bilingual, usually Greek and Turkish. Minority schools often operate to cover the educational needs of Muslims residing in the geographical department of Thrace (Pomak, Roma and Turkish origin).

Preventing early school leaving: Following the Eurostat, in Greece, the rate of early school leavers was 9.0 % in 2014, 10.1 % in 2013, and 11.4% in 2012. The previous rates are somewhat below the average EU-27 (11.3% in 2014 , 12.0% in 2013, 12.8% in 2012). However, the target value of the early school leaving (ESL) rate set for 2020 is 9.7%.

¹² See: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Greece:Educational_Support_and_Guidance (Accessed August 27, 2014).

¹³ See: <https://www.european-agency.org/country-information/greece/national-overview/identification-of-special-educational-needs> (Accessed August 27, 2014).

In recent decades, the main measures with regards to early school leaving are the following:

- Specialised authorities have been established with a view to mapping early school leaving research.
- A series of measures has been taken in terms of implemented pedagogy in schools (such as changing textbook, establishing Flexible Zone, All-Day Schools, individualised teaching, etc.). These measures aim to address school failure which constitutes one of the main causes of early school leaving.
- Two supplementary intervention programmes have been designed and implemented for students who face learning difficulties: "Remedial Teaching" (Enischitiki Didaskalia) and "Additional Teaching Support" (Prosthethi Didaktiki Stiriksi).
- A series of measures has been taken for the inclusion and integration of immigrant students, such as Reception Classes (Taxeis Ypodochis) and cross-cultural schools (Diapolitismika Scholeia). Moreover, additional programmes have been designed and implemented in order to prevent specific groups of students with high rates of early school leaving (such as Roma children and Muslim).
- Second Chance Schools have been established for students who left school early.
- One-year compulsory education in kindergarten has been established, which is thought to significantly contribute to the smoother progress in school.
- In recent years, due to the financial crisis, additional social support services (such as free meals) are provided to students who are at high risk of dropping out of school.

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

Multiple initiatives have taken place for increasing participation, inclusion and equity for children and adolescents. They are mostly programmes financed by the National Strategic Reference Framework (NSRF) 2007-2013 and focus on specific schools, rather than a national level initiative. Such programmes are:

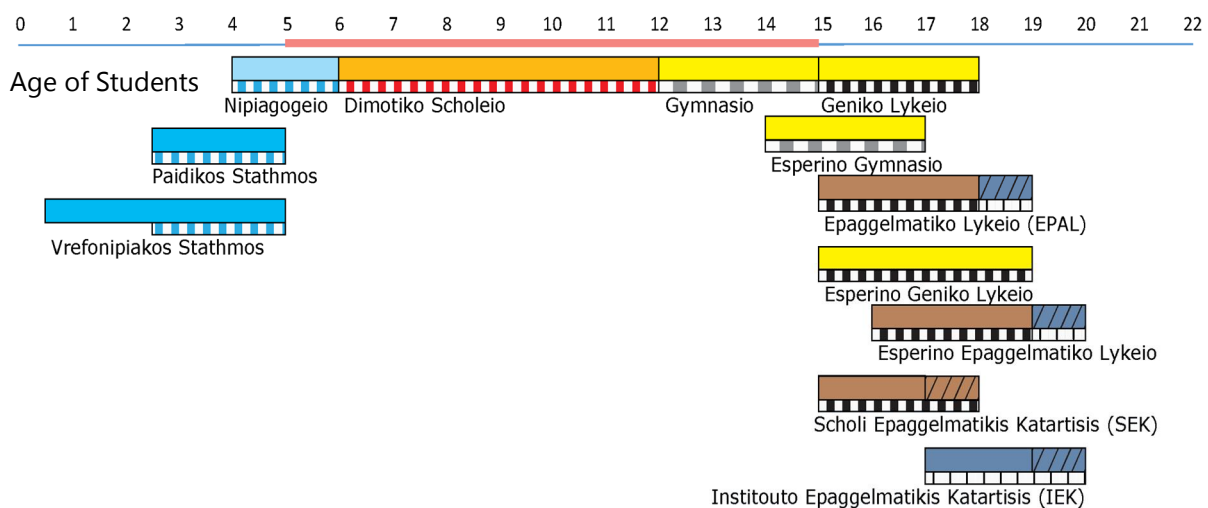
- "Education of repatriated and foreign students" for the support of existing Reception Classes and teachers in them.
- "Education of Roma children" (NSRF 2007-2013), for the specific group of Roma children, threatened by marginalisation and early school leaving.
- "Education of Muslim Children" (NSRF 2007-2013), for the specific group of minority schools.
- "New School (21st Century School): Integration of vulnerable social groups to Primary Education", which supported schools on the Zones of Educational Priority (ZEP).

3 General Information on the Greece Education System

The Greek education system is governed by national laws and legislative acts (decrees, ministerial decisions), while the general responsibility for education lies with the Ministry of Education, Research and Religion.

All schools in Greece implement centrally specified curricula and weekly timetables. Therefore, the educational system is centralised. As far as the structure of the school system is concerned, as can be seen from figure 3, the educational system includes: (a) Early education (0- 6 years), including ante-preschool (0-3 years) and preschool/pre-primary education (3–6 years), (b) Primary education (6-12 years), and (c) Secondary education, including (compulsory) lower secondary education (12-15 years) and (optional) upper secondary education (15- 18 or 20 years).

Figure 3: Structure of the Greece School System¹⁴



Pre-primary: Pre-primary education in Greece begins at the age of 4, when children are enrolled in kindergarten (Nipiagogia). However, since the school year 2007-2008, the attendance is compulsory only for children aged 5 years old.

There are half- and all-day kindergartens. The aim of both is to fully prepare the child for primary education, support working parents and reinforce the role of state care in order to eliminate any educational-social discrimination. The operation of kindergartens falls under the authority of the Ministry of Education, Research and Religion.

For children aged less than 4 years old, centre-based day care provision operates under the auspices of the Municipal Authorities and the Ministry of Internal Affairs. There are two types of centre-based day cares: (a) the Infant-Toddler Centres (Vrefonipiaki Stathmi) for children aged 6 months to 2.5 years; and (b) the Child Centres (Pediki Stathmi) for children aged 2.5-5 years old. At the age of 5, all children

¹⁴ See: http://eacea.ec.europa.eu/education/eurydice/documents/facts_and_figures/education_structures_EN.pdf.

have to be enrolled in a kindergarten classroom. There is no law that requires schools to implement a programme for the smooth children's transition from kindergarten to primary school.

Primary Education: The next stage comprises the compulsory attendance of Primary School (*Dimotiko Scholeio*) which belongs to primary education and lasts for 6 years. There is no official programme related to the transition from primary to secondary schools and entrance exams are not required.

Secondary Education: The 3 year attendance of Lower Secondary Education (*Gymnasio*) constitutes the last period of compulsory education and is a prerequisite for enrolling and attending general or vocational upper secondary schools. In parallel with day *Gymnasio*, the *Esperino Gymnasio* (Evening Lower Secondary Education School) operates, in which attendance starts at the age of 14.

The second tier of secondary education lasts also for 3 years, constitutes the non-compulsory upper secondary education and comprises General Secondary Education (including *Geniko Lykeio/General Lyceum*) and Vocational Secondary Education (including *Epaggelmatiko Lykeio/Vocational Lyceum*). Parallel to day schools, *Esperina Genika Lykeia* (Evening General Lyceums) and *Esperina Epaggelmatika Lykeia* (Evening Vocational Lyceums) also operate, while the minimum age for enrollment in Evening Vocational Lyceum is 16 years of age. There are also specific types of public secondary schools, such as Religious Schools (*Ekklesiastika Sholeia*), Music Schools (*Mousika Sholeia*), Art Schools (*Kallitexnika Sholeia*), and Sport Schools (*Athlitika Sholeia*), which focus on a specific scientific and/or cultural field. Admission to those schools is selective and done (apart from Religious Schools) by special exams.

The administration of primary and secondary education is conducted at central, regional and local level respectively by: the Ministry of Education, Research and Religion; the Regional Education Directorates; the Directorates of Education (Prefecture); and the School Units.

As far as the daily timetable of day-schools is concerned, all the primary and secondary schools are **half-day schools**, i.e. regular classes take place in the mornings and lunch is not served in schools. However, in pre-primary and primary education pupils have the chance (under specific circumstances) to attend "all-day-schools", called *Oloimera Sholeia*.

The administration of primary and secondary education is conducted at central, regional and local level respectively by: the Ministry of Education, Research and Religion; the Regional Education Directorates; the Directorates of Education (Prefecture); and the School Units. For admission to higher education nationwide exams (*Panellinies*) are conducted.

Higher education constitutes the last level of the formal education system and comprises the University and Technological sectors. The University sector includes Universities, Technical Universities, and the School of Fine Arts. The Technological sector includes the Technological Education Institutions (TEIs), and the School of Pedagogical and Technological Education (ASPETE).

Higher education institutions are fully self-administered legal entities of public law. Collective bodies that are established and act in compliance with special legislation administer each institution.

4 Literacy Performance Data for Children and Adolescents

4.1 Performance Data for Primary Children

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

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

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

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

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

Since Greece participated only in PIRLS 2001 the country-specific data in this reports is from PIRLS 2001.

In 2001, students in Greece achieved a mean score of 524 on the PIRLS overall reading scale. This was significantly lower than the EU-17 average of 534. Ten EU countries achieved significantly higher mean scores than Greece (Sweden, Netherlands, United Kingdom, Bulgaria, Latvia, Lithuania, Italy, Germany and Czech Republic) (Exhibit 1.2 from Mullis, Martin, Gonzalez, & Kennedy, 2003). The performance of students in Greece was stronger when reading for literary purposes (529) than for informational purposes (522). Counter-intuitively, students in Greece performed slightly better when engaged in higher-level comprehension processes (Interpret, Integrate & Evaluate: 526) compared with more basic processes (Retrieve & Infer: 522) (Appendix D, Tables K2-K5).

Table 1: Overall Performance on PIRLS 2001 – Greece and EU-17 Average

	Overall Reading – Mean Score
Greece	524
EU-17 Avg.	534

Significant difference (relative to the EU-17 Average) shown in **bold**.

In Greece, 24% of students performed at or below the Low benchmark on overall reading. This is higher than the EU-17 average of 20% (Table 2) (see Appendix Table K6). Greece's standing relative to all other participating EU countries on this indicator is in the mid-range and in front of only three countries (Romania, Slovenia and Cyprus). In Greece, 7% of students performed at the Advanced benchmark; this is below the EU-17 average (10%) and behind of countries such as England (20%), Bulgaria (17.5) and Sweden (15.5%).

Table 2: Performance by Overall PIRLS Reading Benchmarks 2001 - Percentages of Pupils in Greece and on Average across the EU-17

	Below 400 Below Low	400-475 Low	475-550 Intermediate	550-625 High	Above 625 Advanced
Greece	6	19	38	31	7
EU-17 Avg.	5	15	36	34	10

Significant differences are shown in **bold**.

The standard deviation for overall reading in Greece is 73. This is similar to the corresponding EU-17 average of 72 (Table 3). Only the Netherlands (57), Latvia (61), Lithuania (64), and Czech Republic (65) have standard deviations that are substantially lower than Greece's. In Greece, the difference between the 90th and 10th percentiles is 185 points. This is very similar to the corresponding EU-17 average of 184.

Table 3: Spread of Achievement – Standard Deviation, 10th, 90th Percentiles, and Difference between 90th and 10th Percentiles on Overall Reading – Greece and EU-17 Average

	Standard Deviation	10 th Percentile	90 th Percentile	90 th -10 th
Greece	73	429	614	185
EU-17	72	438	622	184

Significant differences in **bold**.

Although the spread in achievement between the 10th and 90th percentiles in Greece (210) is similar to the EU-17 average, the scores of students in Greece at the 10th and 90th percentiles remain slightly lower than the corresponding EU-17 averages. At the 10th and 90th percentiles, students in Greece achieved 9 and 8 points, respectively, less than on average across the EU-17. This may suggest that the higher-performing students in Greece are underperforming when they compared with the EU-17 higher-performing peers.

4.1.2 Gaps in reading

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

Parent's educational achievement

In Greece, students whose parents have completed a university degree achieved a mean score on the PIRLS overall reading scale of 572, which is 82 points higher than those whose parents have completed lower secondary or below (490 points) (Table 4). This difference is above the EU-17 average of 73, indicating a slightly stronger association between parental educational achievement and PIRLS reading performance in Greece (Figure 1). A greater percentage of students in Greece have parents who have completed lower secondary or below (27%) than on average across the EU-17 (19%), the

corresponding mean overall reading scores of students in Greece is 9 points lower than the EU-17 average. However, a similar percentage of students in Greece (23%) and across the EU-17 on average (25%) have parents who have completed a university degree or higher, and the corresponding mean overall reading scores are the same (572 points).

Table 4: Percentages of Parents Whose Highest Level of Education was Lower Secondary, and Percentages who Finished University or Higher– Greece and EU-17 Average

Level of Education	Lower Secondary or Below		University or Higher		Difference
	%	Mean	%	Mean	
Greece	27	490	23	572	82
EU-17 Avg.	19	499	25	572	73

Significant differences in **bold**.

Primary language spoken at home different from language used at school

In Greece, 94% of pupils reported that they always spoke the language of the PIRLS test at home, while 6% reported that they did so sometimes or never (Table 5). A difference of 20 points was found between those students who reported that they always spoke the language of the test at home and those who did so 'sometimes or never'. This is considerably below the corresponding EU-17 average difference (40 points) (Figure 1).

Table 5: Percentage of Students who Always Spoke the Language of the PIRLS Test At Home and Percentage who Spoke the Language Sometimes or Never – Greece and EU-17 Average

Language of Test At Home	Sometimes/Never		Always		Difference
	%	Mean	%	Mean	
Greece	6	507	94	527	20
EU-17 Avg.	11	499	89	539	40

Significant differences in **bold**.

Gender

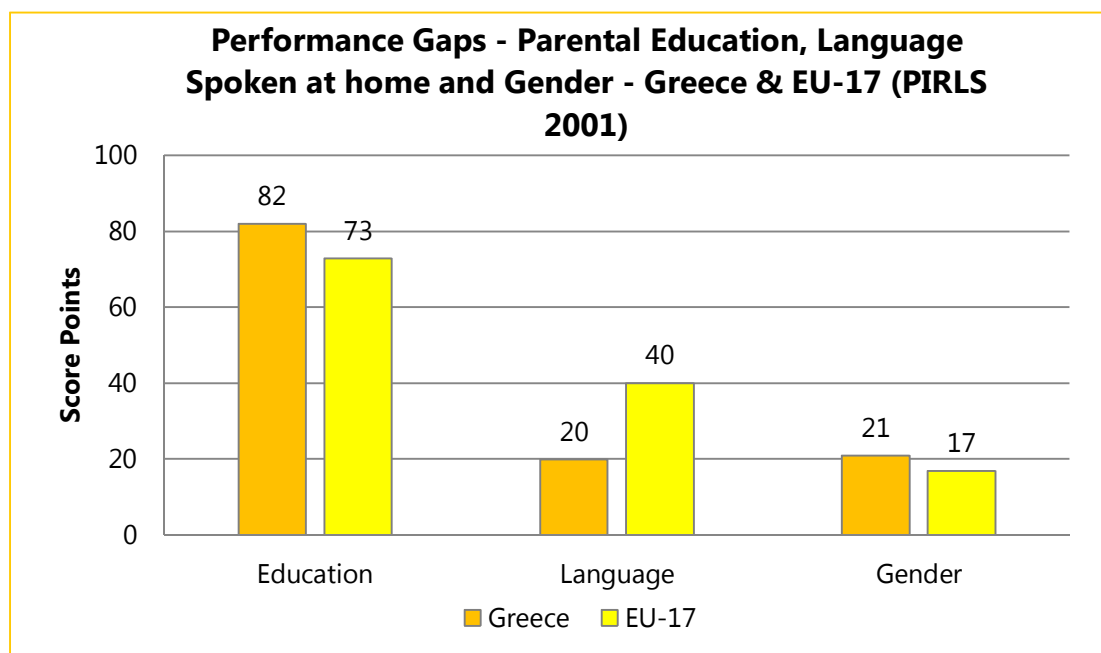
In 2001, the gender difference in Greece on the PIRLS overall reading scale was 21 score points in favour of girls (Table 6). This is higher than the EU-17 Average difference of 17 score points (Figure 1). This indicates a slightly higher association between gender and achievement in Greece, in favour of girls, compared to on average across the EU-17. The gender difference in Greece remained rather stable for 10 years, because the score difference in 2001 was about the same as it was in 1991 (19 points) (see Martin, Mullis, Gonzalez, & Kennedy, 2003, p. 20).

Table 6: Performance by Gender in PIRLS 2001 (Overall Scale) – Greece and EU-17 Average

	Girls	Boys	Girls-Boys
Greece	535	514	21
EU-17 Avg.	542	525	17

Significant differences in **bold**.

Figure 1: Performance Gaps – Gender, Education and Language Spoken at Home



Education: Parent has University vs. Lower Secondary/Primary education; Language: Student speaks language of the test at home always vs. sometimes/never; Gender: Girls vs. boys.

Attitudes to Reading

In Greece, the difference in mean reading score between students who scored high in Students' Attitudes Towards Reading scale (SATR) and those who scored low was 28 score points. This difference is less than the corresponding average across the EU-17 (51 score points), indicating that the association between reading attitudes and performance is weaker in Greece than on average in the participating EU countries (Table 7). Also students in Greece in the top quarter of the SATR scale achieved a mean score (536) significantly lower than the EU-17 average reading score (555). More students in Greece (61%) had a high SATR score, compared with the corresponding EU-17 average (51%). The percentage of students who had low SATR scores was similar in Greece (6%) and across the EU-17 (7.5%) (see Mullis et al., 2003).

Table 7: Mean Overall Reading Scores of Students in High and Low of the PIRLS Students' Attitudes Towards Reading (SATR) Scale – Greece and EU-17 Average

SATR	High	Low	Difference (High – Low)
Greece	536	507	28
EU-17	555	504	51

Significant differences in **bold**.

The association between mean reading score and Students' Reading Self-Concept was similar for students in Greece and on average across the EU-17 (Table 8). The mean score difference in Greece between students with high and low Reading Self-Concept was 93 score points, which is just above the corresponding EU-17 average of 89. More students in Greece (70%) than on average across the EU-17 (49%) had a high self-concept. Less than 1% of students in Greece (0.8%) had a low reading self-concept, compared to 2% on average across the EU-17 (see Mullis et al., 2003).

Table 8: Mean Overall Reading Scores of Students who scored High and Low on the PIRLS Reading Self-Concept Scale – Greece and EU-17 Average

Reading Self-Concept	High	Low	Difference (High – Low)
Greece	536	443	93
EU-17	556	467.	89

Significant differences in **bold**.

According to the findings of a small scale longitudinal study implemented in Greece (Georgiou, Manolitsis, Zhang, Parrila, & Nurmi, 2013), who followed students from grade 4 to grade 6, the students' attitudes towards reading predicted only spelling achievement and not reading fluency or reading comprehension achievement.

4.2 Performance Data for Adolescents

The performance data are derived from the OECD PISA study.

The Programme for International Student Assessment (PISA) led by OECD¹⁵ **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).

¹⁵ See: <http://www.pisa.OECD.org>.

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

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

In PISA 2012, Greece performed below the EU-27 average, by 12 score points (Table 9).

Table 9: Reading performance in PISA 2012

	Mean	S.E.
Greece	477	(3.3)
EU-27	489	(0.6)

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

The performances in reading of Greek students have not improved significantly between 2000 and 2012 (Table 10). A notable increase of mean score of Greece from 2000 to 2009 resulted in a reading performance close to EU-27 mean score in 2009, but the mean reading performance drop down again in 2012 and enlarge the difference between Greece and EU-27 average. Thus, the significant decline in performance between 2009 and 2012 was offset by earlier increases. It is worth of noting that the reading performance change from 2009-2012 decreased (-6 score points), although the EU-27 respective change of performance increased significantly. If this decrease is not coincidental, but it is due to other socio-economic factors taken place in Greece after 2009 (financial crisis), it will be shown in the forthcoming PISA assessment of 2015.

Table 10: Trends in reading performance - 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.
Greece	474	(5.0)	483	(4.3)	477	(3.3)	9	(8.2)	-6	(6.0)	3	(8.4)
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

In Greece, the spread of achievement, defined as the difference between the 10th and 90th percentiles, is the same as in EU countries on average (Table 11). The spread in Greece is broader for boys than for girls – a pattern also observed across EU countries on average. However, the spread of achievement is somewhat smaller for girls and larger for boys than that of EU-27 average.

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

	Difference 90 th -10 th for all students		Difference 90 th -10 th for girls		Difference 90 th -10 th for boys	
	Score diff.	S.E.	Score diff.	S.E.	Score diff.	S.E.
Greece	251	(6.0)	218	(6.5)	267	(8.5)
EU-27	251	(1.3)	230	(1.2)	259	(1.6)

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

Greece's overall performance below EU-average is due to the fact that there are both more low-performing readers (-2.9%) and slightly fewer top-performing readers (-1.9%) than in the EU-27 on average (Table 12).

Table 12: Percentage of low-performing (below level 2) and high-performing (levels 5 and 6) students - PISA 2012

	Below level 2		Levels 5 and 6	
	%	S.E.	%	S.E.
Greece	22.6	(1.2)	5.1	(0.6)
EU-27	19.7	(0.2)	7.0	(0.1)

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

Between 2000 and 2012, the proportion of low-performers in reading has decreased slightly – by 1.8 %- in Greece. This is due mainly because of the decrease of low performing girls: among girls a decrease of 4.4% was observed, while among boys there was an increase of + 1.3%. It is notable that the proportion of low performing readers, while it was decreasing between 2000 and 2009 for both boys and girls, increased in boys and remained stable in girls after 2009, indicating that the beginning of Greek financial crisis combined with a sharp decrease of the Government Expenditure in Education had a negative impact on Greek students' reading performance.

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

	Proportion of students below level 2 in reading					
	All students		Girls		Boys	
	%	S.E.	%	S.E.	%	S.E.
2000	24.4	(2.1)	17.7	(2.0)	30.9	(2.7)
2009	21.3	(1.8)	13.2	(1.4)	29.7	(2.4)
2012	22.6	(1.2)	13.3	(1.1)	32.2	(1.8)

Significant differences between assessment cycles in **bold**

4.2.2 Gaps in reading performance

This section examines gaps in reading performance according to students' background characteristics

Socio-economic status

In Greece, the gap in reading performance according to the students' socio-economic background (the difference in performance between students in the top and bottom quartiles of the PISA index of economic, social and cultural status) is close to the European average (Table 14).

Table 14: Difference in reading performance between bottom and top national quarters of the PISA index of economic, social and cultural status – PISA 2009

Difference between bottom and top national quarters of the PISA index of economic, social and cultural status	
Score diff.	
Greece	91
EU-26	93

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

Migration

In Greece, the percentage of students with an immigrant background (9%) is close to the EU's average. The gap between native students and those with an immigrant background is 57 score points, which is equivalent to a year and a half year of schooling. The gap between native students and those with an immigrant background is higher than in the EU countries on average.

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

	Native students				Students with an immigrant background (first- or second-generation)				Difference in reading performance between native 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.		
Greece	91.0	(0.8)	489	(4.2)	9.0	(0.8)	432	(11.5)	57	(11.1)
EU-26	91.7	(0.0)	490	(0.4)	8.3	(0.0)	452	(6.4)	38	(6.4)

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

The gender difference in reading performance in Greece is close to the average for EU countries.

Gender

In Greece, gender difference in reading performance is close to the average of European countries. Between 2000 and 2012 the girls' performance slightly increased (+ 9 score points) while the boys' decreased (- 4 score points).

Table 16: Mean reading performance by gender and gender differences – PISA 2009

	Boys		Girls		Difference (B – G)	
	Mean	S.E.	Mean	S.E.	Score diff.	S.E.
Greece	459	(5.5)	506	(3.5)	-47	(4.3)
EU-26	463	(0.5)	506	(0.4)	-44	(0.5)

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

The trend for gender is close to what is observed in the European countries on average between 2000 and 2012: the girls' performance increased from 5 score points, and the boys' decreased by 5 score points.

Table 17: Trends in reading performance by gender – PISA 2000-2012

	Greece				EU-27			
	Girls		Boys		Girls		Boys	
	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.
2000	493	(4.6)	456	(6.1)	506*	(0.8)	473*	(0.9)
2009	506	(3.5)	459	(5.5)	507**	(0.7)	464**	(0.8)
2012	502	(3.1)	452	(4.1)	511***	(0.6)	468***	(0.8)

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

Language spoken at home

In Greece the gap between students speaking the test language at home and those who do not (4.8 % of the students) is higher than the EU average (Table 18). This gap (79 score points) is equivalent to more than one and a half year of schooling.

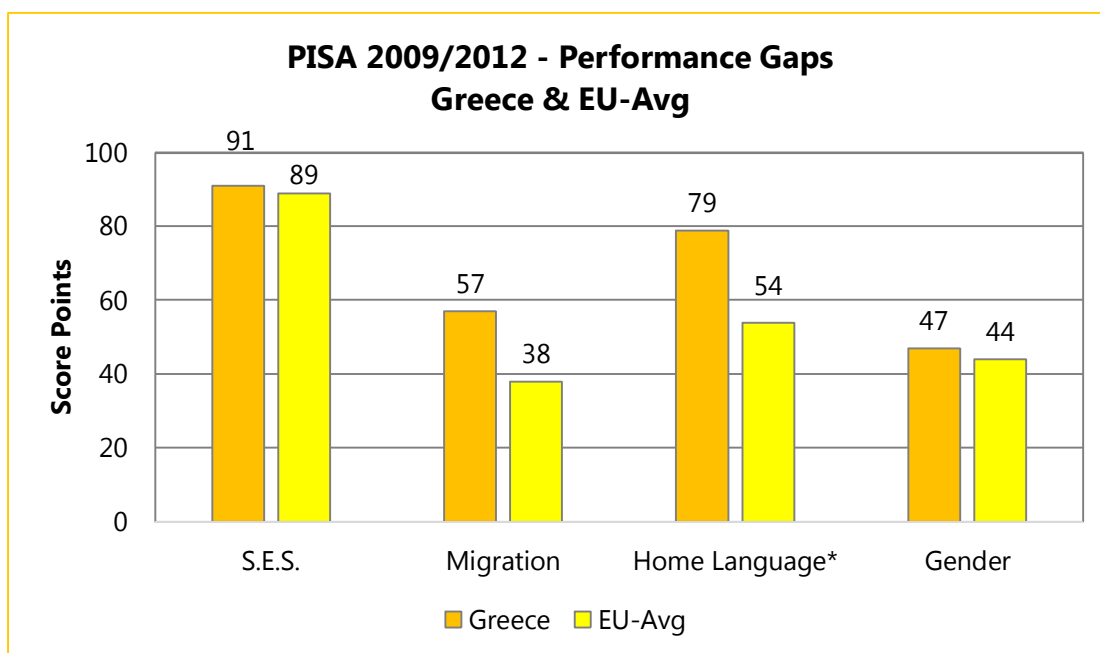
Table 18: Percentage of students and reading performance by language spoken at home – PISA 2012

	Speak test language at home				Speak another language at home				Difference in reading according to language spoken at home	
	Percentage of students	S.E.	Performance on the reading scale		Percentage of students	S.E.	Performance on the reading scale		Score dif.	S.E.
			Mean	S.E.			Mean	S.E.		
Greece	95.2	(0.6)	488	(4.4)	4.8	(0.6)	408	(14.8)	79	(14.6)
EU-27	86.7	(0.0)	494	(0.4)	13.3	(0.0)	441	(5.4)	54	(5.4)

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

The achievement gaps in Greece and on average across the EU are shown on Figure 2.

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



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

Engagement and metacognition

In Greece, there is a gap of 97 score points - which is equivalent to two years and a half of schooling - between students reporting being highly engaged in reading (top quarter), and those reporting being poorly engaged (bottom quarter) in that activity (Table 19). 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 close to the EU country on average.

Table 19: 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.	
Greece	438	(5.8)	535	(3.5)	97
EU-26	444	(0.8)	543	(0.8)	99

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

In Greece, there is a gap of 53 score points - which is equivalent to almost a year and a 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 (Table 20). This difference reflects how closely reading proficiency and awareness of efficient reading strategies are linked. On average, in the EU the gap (98 score points) is higher than the gap in Greece, indicating that the link between these metacognitive strategies and reading performance is lower in Greece than in EU average.

Table 20: 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.	
Greece	455	(4.6)	508	(5.2)	53
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 Greece, there is a gap of 84 score points – which is equivalent to two years 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 (Table 21). This difference reflects how closely reading proficiency and awareness of efficient reading strategies are linked. On average, in the EU, the gap is marginally higher (90 score points).

Table 21: Mean reading scores between students in low and top quarters of summarizing strategies

	Low quarter		Top quarter		Difference
	Mean	S.E.	Mean	S.E.	
Greece	434	(5.0)	518	(4.3)	84
EU-26	440	(0.8)	530	(0.7)	90

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

5 Policy areas

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

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

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

In order to achieve as much comparability as possible across countries, quantitative and qualitative indicators for which information from international data are available are reported. Appendix A provides more information on criteria for the choice of indicators and the chosen indicators for the pre-primary age group. For each of these indicators Appendix B contains a table with numbers of the European countries participating in ELINET. Appendix C has been created using the international database for PIRLS 2011 – and contains separate tables for all information reported. If countries did not participate in PIRLS 2011, data for PIRLS 2006 or PIRLS 2001 are referred to.

5.1 Creating a literate environment for children and adolescents

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

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

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

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

However, schools do not have sole responsibility. A broad range of actors may shape literacy motivation, from parents and peers to libraries. Parents may provide role models and influence children’s attitudes towards literacy practices. Also, libraries have a vital role if they offer free books, especially for families who cannot afford to buy books. Regional or national campaigns may inspire children and their parents to engage in reading activities. (Cf. ELINET Country Reports, Frame of Reference, pp. 29ff.)

Adolescence is a crucial phase in life where young people develop long-term *identities and self-concepts* which include media preferences and practices (*media identity*). In this perspective, it is of

great importance that families, schools and communities offer young people rich opportunities to encounter the *culture of reading* and develop a stable *self-concept as a reader/writer* and member of a literary culture. This includes access to a broad variety of reading materials (in print and electronic forms) and stimulating literate environments in and outside of schools; it also includes opportunities to get actively involved in engaging with texts, and communicating, reflecting on and exchanging ideas about texts with peers and ‘competent others’, such as teachers or parents (Ibid., pp. 45f) .

5.1.1 Providing a literate environment at home

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

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

Parental attitudes to reading

PIRLS 2001 summarized parents’ attitudes toward reading by constructing the “Index of Parents’ Attitudes Toward Reading” (PATR) which was based on parents’ agreement on the following five statements (Mullis et al. 2003, pp. 120-121):

- I read only if I have to.
- I like talking about books with other people.
- I like to spend my spare time reading.
- I read only if I need information.
- Reading is an important activity in my home.

Parents’ responses were averaged across the Index statements and students were assigned in a low, medium or high category. Students assigned in the high category had parents who reported that they agreed a little or a lot with the five statements. Students assigned in the low category had parents who disagreed a lot. Students in the medium category had parents whose responses were between these two extremes.

The figures are presented below with the percentage of students assigned to the high, medium and low category as reported by PIRLS 2001 (Mullis et al. 2003, Exhibit 4.17 – “Index of Parents’ Attitudes Toward Reading, p. 124).

- High PATR 64 % (EU 17 average 59%)
- Medium PATR 31 % (EU 17 average 36%)
- Low PATR 6 % (EU 17 average 6%)

The importance of parental attitudes to reading is shown by the fact that in Greece there are differences in reading performance at grade 4 between children whose parents belonged to high PATR category (average achievement score = 539) and those parents belonged to low category (average

achievement score = 505) (Mullis et al. 2003, Exhibit 4.17 – “Index of Parents’ Attitudes Toward Reading, p. 124).

Home Educational Resources

On an index of home educational resources in PIRLS 2001, 9% of students in Greece were categorised as having high resources, the majority had ‘medium’ resources (83%), with 8% of students having ‘low’ resources (Table 22). On average across the EU-17, 13% had high educational resources, and 4% had low resources. In Greece, students with ‘low’ resources achieved a mean score that was 111 points lower than those with ‘high’ resources. This is slightly higher than the EU-17 average (107). This indicates that the relationship between home educational resources and reading achievement is similar but slightly stronger in Greece, than on average across the participating EU-17 countries.

Table 22: Percentages of Pupils Who Scored High and Low on Index of Home Education Resources, and Corresponding Mean Overall Reading Scores – Greece and EU-17 Average

Index of Home Education Resources	Low		High		Difference (High-Low)
	%	Mean	%	Mean	
Greece	8	477	9.2	588	111
EU-17	4	476	13	582	107

Significant differences in **bold**.

Number of books in the home

In Greece, students with few/no books at home achieved a mean score that was 56 points lower than the mean score of students who reported having many books at home. This is lower than the average difference across the participating EU countries (70 points) (Table 23). Thus, this indicates that the association between books at home and reading performance is weaker in Greece than across the EU-17. A similar percentage of students in Greece (9%) and across the EU-17 (10%) reported having less than 10 books at home, and a similar but slightly lower percentage of students in Greece (15%) reported having greater than 200 books at home, compared to the EU-17 average (18%).

Table 23: Percentages of Students with Many or Few/None Books in Students’ Homes and Corresponding Mean Overall Reading Scores – Greece and EU-17 Average

Books in Students’ Homes	None or Few (<10)		Many (200+)		Difference (Many – None/Few)
	%	Mean	%	Mean	
Greece	9	488	15	544.23	56
EU-17	10	485	18	554.99	70

Significant differences in **bold**.

Early Literacy Activity Scale

PIRLS 2001 reports the percentage of students whose parents (often, sometimes, never or almost never) engaged in literacy-relevant activities with them before the beginning of primary school (Mullis et al. 2003, see Exhibit 4.1, p. 97). Six activities are included in the Index of Early Home Literacy Activities (EHLA). These activities are: reading books, telling stories, singing songs, playing with alphabet toys, playing word games, reading signs and labels aloud.

The data for Greece are composite score for all these activities and are presented below

- High EHLA: 57.0% (EU 17 average 58%)
- Medium EHLA: 33% (EU 17 average 32%)
- Low EHLA: 11% (EU 17 average 9%).

The Index of Early Home Literacy Activities correlates with students' reading achievement in grade 4. The average reading score in Grade 4 of students who often engaged in literacy activities with their parents prior their entrance in primary education (high EHLA) was 540, as compared to 514 for students with medium EHLA and to 493 for those with low EHLA (Mullis et al. 2003, Exhibit 4.1, p. 97). These data demonstrate the importance of the time devoted to literacy-related activities in early childhood and their association with achievement in grade 4.

Furthermore, story reading in the home environment is considered as a key-activity in the Index of Early Home Literacy Activity given its important contribution in children's reading achievement. If only the category "often" is considered, the percentage of students in Greece whose parents often engaged in story reading with them before the beginning of primary school is lower compared with the European average: (Mullis et al. 2003, Exhibit 4.2, p. 98).

- Often: 49% (EU 17 average 57%).

Challenge: Since reading to the child is a predictor of future literacy achievement, this is a matter of concern, 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. In particular there is a need for more family literacy programmes with **a focus on supporting parents and care-givers** in understanding and fostering the literacy development of their children by enriching the home environment with books and appropriate literacy materials and by engaging children in effective literacy practices such as story reading.

5.1.2 Providing a literate environment in school

Context for Greece/Challenge/Need for Action: In Greece there is a slight decrease in reading motivation from 4th grade (cf. PIRLS 2001) to age 15 (cf. PISA 2009). In PIRLS 2001 about **6 percent** reported that they never or very seldom read for pleasure outside school and **12 percent** of pupils reported similar infrequent attitudes to reading stories or novels outside of school (Mullis et al., 2003, pp. 268-269). According to PISA 2009, 17.5% of 15-year-olds report to never or seldom read for enjoyment outside of school, among those 12% of girls and 24% of boys (OECD 2010c, Figure III 2.3). On the other hand, it is also reported that Greece is the only OECD country where more than 10% of students read for enjoyment longer than two hours on a daily basis.

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

Pre-primary education

In Greece the National Curriculum for pre-primary education anticipates the provision of a literacy-rich environment in school. According to its guidelines, children should be provided different literature genres (e.g. narrative and informational texts and poetry), various reading materials (e.g. newspapers and magazines) and samples of environmental print (e.g. street signs, posters, labels, and logos), which help them understand the organisation and the function of written language and improves their literacy skills (Ministerial Decision G 2/21072b, National Gazette 304/13-3-2003/t.B', p. 594-596).

Primary education

Resources teachers use for teaching reading

Since the type of reading materials teachers use in literacy instruction may influence the motivation of students, it is of interest to have a closer look at this matter. PIRLS 2001 provides some data. Just one percent of students in Greece are taught by teachers who use a variety of children's books as a basis for reading instruction, compared with an EU average of 13%. Similarly, no students are taught by teachers who use newspapers and/or magazines compared with an EU average of 4%, and just two percent of students are taught by teachers who use materials from different curricular areas as a basis for reading instruction compared with an EU average of 9%. On the other hand, ninety-five percent of pupils in Grade 4 in Greece are taught by teachers who use textbooks as the basis of reading instruction, compared with an EU average of 78 % (Mullis et al. 2003, exh. 6.6, p. 177, EU averages obtained from PIRLS 2001 database, s. Table H1 in Appendix C).

Availability and use of classroom library

Based on data provided by their teachers, PIRLS (2001) shows that 61% of pupils in Greece were in classrooms which had a classroom library or a reading corner – (Mullis et al. 2003, exh. 6.28, p.206; EU averages from PIRLS 2011 database, s. Table H2 in Appendix C). This is lower than the corresponding EU-17 average of 70%; however for about 40% of student there is no classroom library available. Moreover, classroom libraries counted on average 36 books which is below the respective European average of 56. Additionally, classroom libraries counted on average 4 magazines, a quantity which is almost the same with the European average number of 4 magazines that exist in the classroom libraries across the European countries. Twenty-two percent of students in Greece could spend class time in the library/reading corner at least weekly – about the same proportion as on average across EU countries (22%) (Mullis et al. 2003, exh. 6.28, p.206). Across all classrooms (including those with no library), 29% of students in Greece had teachers who reported that they brought them to a library other than the class library at least once or twice in a month, almost the same percentage as the average of 28% across EU-17 countries (Mullis et al. 2003, exh. 6.29, p.207).

Secondary education

Regarding secondary education, PISA 2009 (OECD 2010b, Table IV.3.24, p. 250) shows that only 66.6% of students were in a school with a library, significantly lower than the OECD average (89.8%). In 50% of schools, the principal reported a lack of library materials, a significantly higher percentage than the OECD average (29.4%).

Challenge: Children in Greece are not involved frequently with the reading of books beyond the official school textbooks. In Greece the use of the classroom library by students were infrequent. According to PIRLS 2001 data, 61% of the students were allowed to use the classroom library less than weekly and only 17% of students used the classroom library daily. In addition to this, the average number of books in classroom libraries was low (36 books).

In Greece there is a need to enrich the school environment with books belonging to several literature genres and enhance the role of classroom and school libraries in promoting students' reading achievement and motivation.

5.1.3 Providing a digital environment

Digital environment of pre-primary students

According to the Cross-Thematic Curriculum Framework guidelines, kindergarten children should be given plenty of opportunities to discuss about the utility of the provided Information and Communication Technology (ICT) and its use in daily school activities. Special emphasis is given to computer use as a didactic tool and as a means which can help children discover new things and express themselves in the daily activities. Regarding literacy, the computer can be used for playing computer games related to literacy skills and for activities related to letter knowledge and/or writing.

Digital environment of primary students

A literate environment can also be created by incorporating digital devices into the school environment. According to teacher reports in PIRLS 2001, 82% of students in Greece had no access to computers in the school environment, a percentage which is significantly higher from the European average percentage of 48%. Among students who had access, 0% attended classes with a computer available in classroom (EU-17 average was 29%) and 17% had available computers somewhere else in the school (EU-17 average was 50%). Small is also the reported percentage of students who had internet access (Greece 9%, EU-17 average 37%) (Mullis et al. 2003, exh. 6.31, p. 211). PIRLS 2001 also provides information regarding computers' instructional use in the school environment. The percentage of students in Greece whose teachers reported their engagement in specified computer activities at least monthly are lower than the European average (Mullis et al. 2003, exh. 6.31, p. 211):

- to develop reading skills and strategies with instructional software: 6% (EU-17 20 %).
- to read stories or other texts on computer: 8% (EU-17 22%)
- to write stories or other texts on computer: 7% (EU-17 34 %)

According to a more recent study than PIRLS 2001, the ESSIE study (European Schoolnet and University of Liege, 2012), the ratio of computers to students in Greece at Grade 4 was 16:1, compared to an EU average of 7:1, and a ratio of 3:1 in Denmark, Norway and Estonia. In Greece, there were 50 students per laptop computer connected to the Internet, compared with 20:1 on average across EU countries. In Greece, at Grade 4, more computers tended to be located in computer rooms than in classrooms (70% in Greece, compared with 58% on average across EU countries). The ratio of students to interactive whiteboards in Greece was 500:1, compared with a ratio of 111:1 on average across EU countries. However, just 3% of students in Greece were in schools without broadband access, compared with 5% on average across EU countries. Teachers in Greece had low levels of experience with ICTS, compared with teachers in other countries.

Digital environment of secondary students

The Survey of Schools (SoS) Country Profile reports that at secondary level public-private partnerships for promoting the use of ICT are encouraged in private funding for hardware and software in schools (SoS Country Profile 2012, p. 4). According to the SoS study, students at secondary level are provided recommendations or suggestions in the hardware areas, such as computers, projectors or beamers, and mobile devices, and the software categories of office applications, communication software and digital resources. Based on official guidelines, students at secondary level are expected to use ICT in all subjects in class, and for complementary activities. There are no central recommendations on the use of ICT in student assessment (SoS Country Profile 2012, p. 4).

Taking into account the findings of SoS it is obvious that Greece is below the EU average as far as the provision of digital environments is concerned. For example, the SoS reports that in Greece "there are considerable fewer computers available for all grade students than the EU average and provision is fairly consistent at all grades. As for computers connected to the internet in schools, in Greece desktop computers are below the EU average at all grades, and generally much lower than the average for laptop computers at all grades" (SoS Country Profile 2012, p. 6). However, as the study reports "In Greece use of ICT by teachers is higher at all grades than the EU average. There are more teachers using ICT in more than 25% of lessons, above the EU average." Therefore, it seems that despite the problems of digital equipment, there is a notable mobility among Greek teachers regarding the use of ICT.

The 2009, the OECD study "Students On Line" (OECD, 2011) reports that 89.9% of students have at least a computer at home (OECD average: 94.3%), rate increased significantly compared with 2000 (percentage of students who reported having a computer at home: 44.7%, OECD average: 72.3%) (OECD 2011, p. 300). Moreover, the ratio of computers to the number of students in school in 2000 is 0.04 (OECD average: 0.08) and in 2009 is 0.08 (OECD average: 0.13) (OECD 2011, p. 306). 87.5% of students reported that they have access to computers (OECD average: 93.1%) and 88.1% reported that they have access to the internet (OECD average: 92.6%) at school (OECD 2011, p. 307). Furthermore, 83.5% of students reported that they use a computer at home (OECD average: 92.6%) and 57.9 % at school (OECD average: 71.4%) (OECD 2011, p. 308). The study also reports that the 82.3% of the student population in Greece spend no time at all on computers during language lessons – the lessons most likely to be dedicated to literacy acquisition (OECD average: 74.0%) (OECD, p. 321). Only 9.1% of Greek students report using laptops at school: in Denmark, this number is almost 8 times as high (73.2%) (OECD, p. 323).

The 2012 OECD study "Students, Computers and Learning: Making the Connection" (OECD 2015) reports that 94.6% of 15-year-old students in Greece reported that they have at least one computer (OECD average 95.8%) (OECD 2015, p. 18). However, only 65.9% reported that they use computers at school (OECD average 72.0%). Moreover, the number for students per school computer is 8.2% (OECD average 4.7%), and only 44.9% of students reported that they browse the Internet at school for schoolwork at least once a week (OECD average 44.9%). Finally, 54.4% of students reported that they browse the Internet for schoolwork outside of school at least once a week (OECD average: 54.9%) (OECD 2015, p. 21). According to the previous findings, in Greece more students had access to computers in 2012 than in 2009. However, as noted in the study, "the reality in our schools lags considerably behind the promise of technology" (OECD 2015, p. 3).

The previous study also states that rapid increases in the share of students doing school work on computers, such as those recorded in Greece between 2009 and 2012, can often be related to large-scale laptop-acquisition programmes. Specifically, during the school year 2009-2010, the Ministry of Education, Research and Religion implemented a programme called "Digital Classroom" (*Psifiaki Taksi*). According to the programme, laptops were distributed to every student of the 1st grade of (public and private) lower secondary schools in order to be used during lessons. Participation in the programme was optional for teachers, but compulsory for a minimum of two courses for every classroom and up to 30% of each course's curriculum. It is notable that the Ministry of Education, Research and Religion did not set up a plan for training and support of teachers for this programme. At the same time, 1200 textbooks were digitised in order to be used by the students through their laptops.

Apart from the laptop-acquisition programme, the Ministry of Education, Research and Religion implemented the "Programme of pilot integration of interactive systems and related equipment in the classroom for a digitally supported teaching". In the context of this programme, 800 primary and secondary schools were equipped with digital equipment, such as interactive whiteboards and laptop laboratories. Meanwhile, teachers in these schools were invited to apply teaching interventions utilising the above equipment.

Finally, it must be noted that the Ministry of Education, Research and Religion proceeded to further actions, such as the digitisation of textbooks and the expansion and enforcement of broadband internet connections in schools.

Challenge: The above data highlight the challenges that Greece faces in integrating ICTs into teaching and learning in literacy and in other aspects of the curriculum. Especially in secondary education, there is a growing home-school mismatch, as access to digital environments at home increases significantly while school does not follow the same pace of developments. Therefore, both the development of a central framework of ICT integration strategy and the sufficient technological equipment of schools is necessary.

The role of public libraries in reading promotion

Public libraries are an important agent in reading promotion. Public libraries in Greece are under the supervision of the Greek Ministry of Education, Research and Religion and they are numbered in 46 Greek territories. Twenty-nine of them have moving libraries whose role is to cover the needs of schools which do not have school libraries.

Greek public libraries in general are charged with an informative and educational role¹⁶. Furthermore, in the context of public libraries' modernisation the project entitled "Digitisation of public libraries material" is undertaken. The project aims for the transmission of knowledge through the use of ICT and enables students of all educational levels to have access to books and print materials of the public libraries¹⁷.

As a result of each library's or each municipality's initiative, public libraries in Greece implement various educational programmes which promote reading literacy, such as reading groups, programmes for promoting pleasure for reading ("Philanagnosia") and book presentations.

¹⁶ See: http://www.e-yliko.gr/htmls/libraries/vivl_dimos.aspx.

¹⁷ See: <http://publiclibs.ypepth.gr/frontoffice/portal.asp?cpage=NODE&cnode=1>.

Since 2011, a network of public and municipal libraries across Greece, called "Future Library"¹⁸ has been developed. The network seeks to support the library community to offer innovative services, through workshops, seminars and conferences, and access to resources. Various programmes which promote reading, such as reading campaigns¹⁹, are being implemented by the network.

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

The "National Book Centre of Greece" has been tasked with the promotion of reading in Greece. According to its webpage, this programme aims to play a coordinating role among the different players to create new structures to support books, to offer information and support the players involved, to record new developments in the sector and to make a substantive contribution to establishing a friendly environment for people from the world of books²⁰. Particularly for adolescents, it offers a workshop on poetry. However it seems that this project was not continued after 2010 (EACEA/Eurydice, 2011:127). It also has to be noted that the National Book Centre of Greece was among the multiple public organisations that were closed due to the financial crisis of the country and the financing problems it was facing.

Challenge: There isn't any officially implemented cooperation between schools, families and libraries. The only agent (NBCG) regarding books and libraries has been shut, due to the financial crisis. As a result, this cooperation is mainly based on local initiatives of public libraries, on a municipal level.

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

The "National Book Centre of Greece"²¹ (NBCG) is an example of a programme for fostering reading engagement among adolescents and promoting and marketing Greek books abroad and recording activities in the sector. It was established by the Greek Ministry of Culture to design and implement national policy for the promotion of books and reading (EACEA/Eurydice, 2011:123).

Family literacy programmes

Programmes for introducing parents and children to libraries and bookshops

In collaboration with the Hellenic Authors' Society, the Greek Children's Book Association, Aesopus Children's & Teenager's Book Illustration Association and Greek publishers, the National Book Centre invites authors and illustrators to visit school pupils to develop a creative dialogue between them, opening up new horizons for them concerning books and literature.

During the 2007-2008 school year, 400 visits to schools, libraries and universities around the country were arranged, attended by around 25,000 pre-school, primary, junior and senior high school pupils and university students. The teacher or librarian taking part in the programme prepares for the author or illustrator's visit. Preparation involves reading some of the author's works to the pupils, searching for his works in the school or public library, working on specific themes, and comparing authors or illustrators from the same general category. The programme can involve part or all of a school class

¹⁸ See: <http://www.futurelibrary.gr>.

¹⁹ See: <http://summer.futurelibrary.gr/>.

²⁰ See: <http://ekebi.gr/frontoffice/portal.asp?cpage=node&cnode=143&clang=1> (Accessed September 3, 2014).

²¹ See: <http://www.ekebi.gr/frontoffice/portal.asp?cpage=NODE&cnode=138> (Accessed March 31, 2015).

(up to 50 people) which ensures that communication is direct and the interaction creative. Visits by authors or illustrators to schools consist of three stages²²:

- preparation for the visit
- communication and interaction with pupils
- follow-up activities after the visit

Furthermore, during the last three years in the summer months, the National Library of Greece in cooperation with the network of the public and the private libraries of the Future Library has undertaken a programme entitled "Here is the library..."²³. The aim of the programme is to introduce children, adolescents, adults to libraries, through appropriate activities and workshops, outlining the different roles that a library might have. The estimations regarding the programme effectiveness indicate that these actions succeeded in attracting children to the libraries and in upgrading the libraries' role in reading promotion.

Initiatives to foster reading engagement among children and adolescents

In the context of the "National Book Centre of Greece"²⁴ operation, several initiatives took place for fostering reading engagement among children and adolescents. The following constitute representative actions for promoting reading²⁵

- Books and children
- Book Fairs
- Reading Clubs
- Readers' Award
- The Book Workshop
- Tributes to leading authors
- Books and cinema
- International Poetry Day

According to the Euridyce report (2011), in Greece specific initiatives that took place up until 2011 were:

- Book Clubs / Reading clubs in Greece (2006 - 2011): promoting reading culture and contact of readers with modern literature
- Programme of events for the support of book stores (2007-2011): cultural events supporting book stores, reading and writers (by NBCG)
- Poetry in movement: Celebration of International Poetry Day (2002-2008): promotional campaign for reading in means of transport (subway, bus, train, airport), in order to attract young readers and get them in touch with poetry in everyday life (by the NBCG)
- Writers and illustrators in schools (2009-2010): for primary schools (1st - 3rd grade) organised visits of writers and illustrators to talk about their work to children and promote literature (by the NBCG)
- Mobile exhibitions: they are lent to schools and libraries in order to help readers get in touch with important Greek writers (by the NBCG).

²² See: <http://www.ekebi.gr/frontoffice/portal.asp?cpage=node&cnode=150&clang=1>.

²³ See: <http://summer2015.nlg.gr/index.php/summary/>.

²⁴ See: <http://www.ekebi.gr/frontoffice/portal.asp?cpage=NODE&cnode=138> (Accessed March 31, 2015).

²⁵ See: <http://www.ekebi.gr/frontoffice/portal.asp?cpage=NODE&cnode=141&clang=1>.

The aforementioned initiatives were both for (primary and secondary) students and adult readers.

Specifically for primary education, another initiative fostering reading engagement, includes the programme “Philanagnosia²⁶” (meaning *Love for reading*), as promoted by the NBCG in all-day schools with United Reformed Educative Programme (*Enieo Anamorfomeno Ekpaideftiko Programma - EAEP*), on the frame of the NSRF (2007-2013) programme “Innovative actions for strengthening love of reading”. Specifically, this programme ran for three school years (2011-2014) as part of the literacy curriculum on primary schools with the EAEP curriculum, implementing “Philanagnosia” (actions for the love of reading) for an hour per week in every grade. This programme included teacher training and seminars, support of reading groups in schools under the motto “a reading group in every school”, visits of writers to schools (in person or digitally), digital materials and books and other things. Other actions are mostly on a private or local and municipal level. An example of a private initiative is entitled “Books on wheels”, by the Stavros Niarchos Foundation. It regards small mobile libraries in bags sent to primary schools across the country, fostering engagement with literature reading. Those bags stay at schools for a month, and parallel activities are organised by teachers.

Cultural programs of school activities

In primary and secondary schools, teachers can take part in *cultural programmes* with their students, in cooperation with the teacher who is responsible in their district. In primary schools such programmes can be held during the hours of *Flexible Zone* (Evelikti Zoni) and students’ participation is mandatory. In secondary schools those programmes are held only in after school hours (2 hours per week) and student participation is optional. Cultural programmes are considered as a creative procedure which focuses on fostering culture and aesthetics by project based learning. Teachers can chose the theme of their cultural programme from a huge selection of themes given by the Ministry of Education, Research and Religion. Such themes include activities fostering literacy and literature such as:

- Literature Laboratory: focus on literary trends, writers, books and creative writing
- Programmes encouraging literature reading
- School newspaper in print or digital form, with journaling practices
- Themes of cultural heritage, local history, mythology, social issues as approached by multiple art forms, including literature.

Challenge/need for action: In secondary education all the initiatives regarding fostering of reading are mainly based on teachers' agency or libraries at a local level. More actions need to be taken, in collaboration with libraries.

Fostering digital literacy in and outside schools

Few initiatives have been undertaken to support the development of adolescents’ digital literacy. The programme “Digital School” is designed to facilitate the exchange of resources and integrate ICT in both primary and secondary school. As part of *Digital School*, programmes like “EduTV” and “Photodentro” were launched (both multi-media platforms) (Pérez-Tornero, 2014).

²⁶ <http://www.philanagnosia.gr/diafora-themata/erotiseis-gia-to-programma>

As part of the EduTV, such initiatives included:

- Participation in the “MedeaNet” project for the promotion of media-based learning in schools, and in particular the implementation of documentaries in schools.
- The “i-create” practices²⁷ organising online school contests with digital practices. An example is the contest “After 100 years”, in which students focused on major Greek literature writers by writing their own digital stories, blogs, videos or posters.

Digital School also promoted digital literacy practices by converting existing school textbooks to digital interactive books (*enhanced* and *simple*)²⁸, in correlation with “Photodentro”, which is a repository of multiple digital learning materials for all school subjects, including literacy.

The aforementioned programmes were financed by the *National Strategic Reference Framework (NSRF) (2007-2013)*, under the programme “Digital educative platform, Interactive books and Repository of Learning Materials”.

Another initiative for the promotion of digital literacy within primary and secondary schools was the project “Formulation of innovative methodology for educational scenaria based on ICT and formulation of educational scenaria for Greek language learning lessons at Primary and Secondary Education”, organised by the Centre of Greek Language. This 4 year project (2011-2015) aimed to support teachers so as to produce innovative educative lesson plans (scenaria) as resources for other teachers with a special focus on digital literacies and the implementation of digital technologies in language lessons. A database with digital educative material was created²⁹ so as to accommodate the scenaria designed during the project.

According to the *Comenius Good Practice Examples* (European Commission, 2013a), “Bookraft” is an online platform, where librarians and students from Poland, Greece and Cyprus cooperate in reading and sharing their thoughts online (European Commission, 2013a: 26). However, there is no further information about the structure of the project or its results.

5.2 Improving the quality of teaching

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

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

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

²⁷ See: <http://i-create.gr/>.

²⁸ See: <http://ebooks.edu.gr/>.

²⁹ See: <http://proteas.greek-language.gr/>.

5.2.1 Quality of preschool

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

The EU High Level Group of Experts on Literacy stated:

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

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

Annual expenditure on pre-primary education

According to OECD Family database (2014, retrieved from <http://www.oecd.org/els/family/database.htm>), the total public expenditure per child in pre-primary education as a percentage of GDP in Greece in 2011 was 0.01%. Greece belongs to the lower end of the distribution.

Ratio of children to teachers in pre-primary school

According to the Ministry of Education, Research and Religion the student/teacher ratio in pre-primary schools for children in Greece is 12.9. The range is from 5.8 in Hungary to 23.1 in Turkey. For the other European countries OECD (2014, p.324) provides information about the student/teacher ratio in pre-primary schools.

Percentage of males among pre-primary teachers

According to the Ministry of Education, Research and Religion 1.7% of the pre-primary teachers in Greece are males. The range is from 0.2% in Bulgaria and Hungary to 17.7% in France. It can be assumed that a higher level of qualification (together with better payment) will attract more males for becoming kindergarten educators.

Preschool teachers’ qualifications

There are two types of early childhood professionals: (a) the pre-primary teachers (kindergarten teachers) who deal with children at the age of 4 and 5 years old, and (b) the infant-toddler pedagogues and care providers (vrefonipiokomoi) who deal with children under the age of 4.

The training of early childhood professionals follows two distinct paths according to the age of children they are going to deal with. The kindergarten teachers are educated in Universities following a 4 year Bachelor programme. They follow a concurrent model of initial teacher education which provides concurrently a general component and a professional component accompanied by a practicum. Kindergarten teachers with a Bachelor's can work in public and private kindergartens. However, in order to work in public kindergarten they should have succeeded in national written exams.

The infant-toddler professionals are educated in Higher Technological Educational Institutes following a 4 year higher education programme and they can work in infant-toddler centres and child centres for children under the age of 4. They follow a consecutive model of training which provides a professional component of one semester practicum with the form of paid placement in a centre-based day care institution.

There are also a number of early childhood practitioners who are trained as infant-toddler care assistants and they work in the centre-based day cares. These practitioners are trained for two years either in post-secondary vocational training centres supplemented by an accreditation from the Organization for Vocational Education and Training (OEEK), or in vocational high schools (EPAL) with the specialty in early childhood care (this second choice of training assistants ended in 2013).

The minimum required level to become a qualified teacher is Bachelor level (ISCED 5). Length of training is 4 years (European Commission/ EACEA/Eurydice/Eurostat 2014, p. 101).

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

Preschool language and literacy curriculum

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

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

Since 2003 the Cross-Thematic Curriculum Framework³⁰ for compulsory education (kindergarten, primary education and gymnasium) is nationally implemented in all private and public schools. The basic principle of this curriculum is ensuring pedagogical continuity on different levels of education. It aims to adjust "teaching aims and methodology, while focusing on the balanced distribution of teaching content among all grade levels and the horizontal linking of all subject content, seeking to cover a greater variety of topics" (Alahiotis, 2003). In kindergarten the Cross-Thematic Curriculum

³⁰ See: http://www.pi-schools.gr/programs/depps/index_eng.php.

Framework sets directions for programmes regarding planning and development of activities in Language, Mathematics, Studies of the Environment, Creation and Expression (through Fine Arts, Drama, Music, Physical Education) and Computer Science. Under this initiative there is a common literacy conceptual framework in pre-primary and primary education.

In Greece the kindergarten Cross-Thematic Curriculum Framework is based on the emergent literacy philosophy and highlights that children, through the context of play, should be provided with opportunities for developing awareness of their written language system (Ministerial Decision G 2/21072b (FEK. 304/13-3-2003/t.B', p. 593-597). The curriculum set goals that help children understand the directional rules of print, that print and not pictures carry the message, that different kinds of print carry messages in different ways and that letters have names and sounds. Children are encouraged to discover very common words in texts and to recognise them in the environmental print. Moreover, children are helped to understand story structure when stories are read aloud to them and to name different kinds of texts. They are also encouraged to write their names, their friends' names, as well as small, frequently used words. In addition, there are goals to encourage children to understand the 'technical' language of literacy (e.g. page number, first line, book title, book cover, etc.), as well as punctuation.

By the end of kindergarten, most children are expected to recognise the link between the written and spoken language, to develop an awareness of letter names and sounds, to use written marks to express their ideas and feelings, to experiment with symbols and letters and to recognise and write their own names as well as some familiar letters and words.

The kindergarten curriculum emphasises the enrichment of the classroom environment with books and reading and writing materials and strongly suggests the use of environmental print.

The kindergarten curriculum implementation is monitored by the School Counsellors who are appointed by the Ministry of Education, Research and Religion. For young children enrolled in the centre-based day cares, although there is a curriculum derived from the Ministry of Internal Affairs, it is not monitored by an authority. Only annual reports for the implemented activities are given to the local Social Welfare Department.

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 (Tafa, 2008). The basic key components are: 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) (Tafa, 2011).

Improving early language and literacy screening and training

In Greece, children's assessment is based on direct observation by their teachers. Children who are identified by their teachers as at-risk in their language development are referred to a specialised local educational service called Centre for Differential Diagnosis and Support (KEDDY), which is comprised of an interdisciplinary team aiming to officially assess them. In addition, children can be officially assessed in the medical-pedagogy centres served in hospitals.

5.2.2 Literacy curricula in schools

Curricula provide a normative framework for teachers and guideline for their teaching aims, 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.

The curricula and timetables of Greek primary and secondary education have been drawn up by the Pedagogic Institute and they are implemented in all schools country-wide. Current curricula fall under the integrated philosophy of the Cross Thematic Curriculum Framework for Compulsory Education (DEPPS) (Ministerial Decision 21072β/Γ2/28-2-2003). That is, autonomous subjects are being taught on the basis of a balanced horizontal and vertical distribution of the teaching material, while the cognitive subjects interconnection is promoted.

Both in primary and secondary education, reading literacy is an element of the Greek language syllabus. Regarding secondary education, literacy is served by the teaching of: Modern Greek Language; Modern Greek Literature; Ancient Greek Language; Ancient Greek Literature (in the original and in translation) (National Gazette 304, B).

Reading for pleasure

In Greece, according to the regulations followed by a number of pilot schools (Eniaiou Anamorfomenoy Ekpedeftikou Programmatos - EAEP primary schools), there is one hour per week devoted to reading for pleasure (National Gazette of the Hellenic Republic, FEK 1327B / 16-6-2011). This hour is called “filanagnosia hour”. During this hour teachers motivate children to be engaged in shared reading activities with all the classroom particularly in Grades 1 and 2. In the later grades of primary school, pupils visit the school library with their teacher in order to borrow or return books and discuss them with their classmates and their teacher.

Occasionally, some schools organise local reading rallies for their students in order to motivate them to read a number of books during their leisure time.

Contents of literacy curricula

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

Explicit instruction of grapheme-phoneme correspondences

According to Eurydice’s analysis of national steering documents, five of six elements of knowledge and understanding of print are included in the intended curriculum at primary level in Greece (awareness that print carries meaning, conventional direction of reading, frequency of reading activities, organisation of written language, and frequency of writing activities). The exception is different types of printed material (Figure 1.1, p. 55).

In the same report, it is noted that all three aspects of phonemic awareness examined by Eurydice are included in steering documents at primary level (playing with language using nonsense words and

rhyiming, exploring and experimenting with sounds, words and texts, and breaking down speech into small units, blending syllables or sounds in words) (ibid.). It is also noted that four (of five) elements of word identification/recognition, four of five elements of phonics, and all four elements of fluency are included (Figure 1.2, p. 56). The missing word identification/recognition element is using knowledge of letter sounds and words while reading. According to Eurydice, many of the same word identification/recognition and phonics skills in steering documents for primary level also appear at pre-primary level, indicating that children in Greece are exposed to these elements from an early stage in their education. In the same Eurydice report, Greece is identified as a country in which phonics instruction is discontinued after the first or middle cycle of primary education (Figure 1.3, p. 58). In England, France, Spain and Turkey, phonics instruction is reported as continuing throughout primary schooling. The limited instruction of phonics in Greece at the first years of primary school is due to the evidence which have shown (a) that Greek-speaking children's word decoding skills are developed earlier than in children learning to read in less consistent orthographies than Greek (e.g., Ellis et al., 2004; Seymour, Aro, & Erskine, 2003) and (b) that phonological skills do not contribute to the later stages of word decoding in Greek (e.g., Georgiou, Parrila, & Papadopoulos, 2008; Manolitsis, Georgiou, Stephenson, & Parrila, 2009; Tafa & Manolitsis, 2012).

There is wide agreement that child's ability to identify and manipulate phonemes, syllables, onset and rimes into words, known as phonological awareness, is highly predictive of reading development, particularly in early stages (see for example Caravolas et al., 2005; Papadopoulos, Georgiou, & Kendeou 2009; Tafa & Manolitsis, 2008). Instruction in phonological awareness is a key component of emergent literacy in this area can be ameliorated through appropriate training with primary school pupils or as early as the pre-primary stage (Papoulia-Tzelepi, 1999) A study on the literacy programmes in the kindergarten curricula of 10 European countries (Tafa, 2008) reports increasing acknowledgement of the impact of phonological awareness on children's success in reading and writing, and indicates that incorporating strategies to enhance phonological awareness in kindergarten classrooms is critical to children's success in becoming literate. Research has, moreover, provided evidence on the important role of the grapheme-phoneme correspondence in learning to read (see for example; Brooks, 2007; Goswami, 2005).

Phonics instruction across the world teaches pupils 'how letters are linked to sounds (phonemes) to form letter-sound correspondences and spelling patterns, and to help them learn how to apply this knowledge in their reading' (National Reading Panel 2000, p. 8). Most of the research emphasises the need for systematic phonics instruction according to a clear plan or programme. It shows that systematic phonics instruction has a positive impact on beginning readers' word identification and spelling skills, and it provides an effective intervention to increase the progress of children with lower literacy rates to the level of attainment acquired by their peers (ibid.). The latter finding was also confirmed by a more recent National Reading Panel report.

Grapho-phoneme correspondence may be more central to reading instruction in certain countries than in others as the effort required for learning to read differs between languages. In languages with consistent orthographies, the same letter is always corresponding to the same sound in different words, whereas letter-sound relations in inconsistent orthographies have many variations. Greek language is characterised by graphophonemic consistency and this fact leads more easily to the systematic teaching of grapheme-phoneme correspondence in the first grade. This phonics instruction is coupled with equal emphasis on the meaning of word as the phonics is embedded in a meaningful story.

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 (European Commission, Eurydice 2011, p. 55).

The Eurydice report on reading literacy indicates that, although steering documents in Greece do not define reading comprehension, four of six comprehension strategies Eurydice looked for are included (the exceptions are using background knowledge and constructing visual representations) (European Commission, Eurydice, 2011, Figure 1.4, p. 60).

Literacy curricula in secondary schools

The latest curriculum regarding all subjects in lower secondary schools, is the Cross-Thematic Curriculum Framework for Compulsory Education (Diathematiko Enaio Plaisio Programmatos Spoudon - DEPPS), implemented since 2006, together with new textbooks. According to it, literacy is mainly taught through specific autonomous subjects: Modern Greek Language; Modern Greek Literature; Ancient Greek Language; Ancient Greek Literature (in the original form and in translation) (National Gazette 304, B). Other than the aforementioned subjects, there are no specific guidelines regarding content area literacy, that is teaching of reading and writing in all school subjects. There are only general guidelines regarding the cross-thematic (or cross-curricular) connection of the different subjects based on common themes or competencies. Among those, the following cross-curricular literacy skills can be considered as an approach to content area literacy:

- Communication skills (talking, listening, reading, writing, arguing, dialogue etc).
- Skill of using multiple sources of information and communication in order to find, analyse, assess and present information.
- Skill of critical processing of information and beliefs.

Specifically, indicative cross-curricular activities and projects are described in the curriculum and the textbooks of every school subject,, including, in some cases, activities for content area literacy (e.g. a science or math activity extended to literacy competencies based on common themes). Those activities should take only 10% of the yearly teaching time.

As far as the lesson of Modern Greek Language is concerned, the general aims of the curriculum are organised on the axes of the four competences (listening, talking, reading and comprehension, writing) along with indicative concepts for possible interdisciplinary approaches. Each of the general axes also includes a focus on grammar knowledge.

In 2011 a pilot curriculum for the teaching of Modern Greek Language and Literature was implemented in some lower secondary schools (National Gazette, B' 2334, Ministerial Decision

113734/Γ2/3-10-2011). The new curriculum, designed under the wider NSRF program entitled "New School (School of the 21st Century) - New Curricula" was planned to be gradually implemented in all schools, but due to the financial crisis the procedures have stopped. It is stated that the pilot curriculum doesn't focus on the improvement of students' results on international tests like PISA, but the low achievement of Greek students on such tests, especially on the comprehension of texts, has somehow guided some of its aims. For that reason, a special focus on multimodal texts is given, so as to help students with reading strategies in order to become critical readers. The pilot curriculum is organised on the axes of four competencies (comprehension of oral language, production of oral language, comprehension of written language, production of written language), and each of the axes is then organised on basic themes, genres, indicative activities and educative material that can be used.

As far as the upper secondary education is concerned, there is no specific curriculum for the language subjects (Modern Greek Language, Modern Greek Literature and Ancient Greek Language and Literature) but mostly general Instructions which were given to teachers in 2002-2003, focusing mainly on the contents of the mandatory school textbooks. Also, there are no guidelines regarding content area literacy, as all subjects are treated autonomously and only language teachers are considered responsible for the acquisition of literacy competencies.

More recently, in 2012, new instructions were given for the lesson of Modern Greek Language only for the first year of upper secondary school (A' Lykeiou) (National Gazette 1562/27-07-2011). The new instructions acted as a mandatory curriculum in all schools. They are organised on four different axes: knowledge about the world, knowledge about the language, literacies, and teaching practices. They give specific focus to the development of critical reading literacy and digital competencies. Due to the financial crisis of Greece, instructions for the other two school grades of upper secondary education have not been made.

It has to be noted that head teachers are not obliged to (officially) make literacy part of their school's profile and part of the school's development (National Gazette 304, B). Also, there are no official national benchmarks/standards for adolescents' literacy performance. The only means to assess adolescents' literacy achievements is by the OECD's PISA assessment (National Gazette 304, B).

Challenge/need for action: As the Greek educational system treats every subject mostly as an autonomously taught lesson, there is little or no attempt to highlight content area literacy. Not all teachers are treated as literacy teachers, and only language teachers are responsible for the acquisition of literacy competencies. Special attention should be given on the issue of content area literacy.

Also, although some initiatives have been taken so as to implement new curricula for literacy education in lower and upper secondary education, with a stronger focus on reading competencies, those initiatives remained at a pilot level and need to be more firmly continued, implemented and supported in all schools.

Finally, there are no official standards for screening adolescents' literacy performance and special actions should be taken towards this direction.

5.2.3 Reading Instruction

While most literacy researchers have clear concepts about effective literacy instruction, we do not know much about what is actually going on in classrooms in Greece or other European countries. In order to describe the practice of reading instruction we would need extensive observational studies. However, there are only rare observational studies (Philipp 2014). There is a noteworthy shortage of data on actual reading instruction in school.

In PIRLS 2001 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. In 2001, students in Greece spent 795 instructional hours for language and reading which is close to the average of the EU countries. Netherlands was in the upper end of this continuum with a total of 1082 instructional hours, while Slovenia was at the lower end with 602 instructional hours per year.

No comparable data are available for secondary schools.

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

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 2001, although they may be outdated and not describe today's situation:

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

- Identify main ideas: 92% (global avg: 90%)
- Explain or support their understanding: 85% (global avg: 90%)
- Compare reading with own experiences: 87% (global avg: 73%)
- Compare with other things read: 68% (global avg: 59%)
- Make predictions about what will happen next: 68% (global avg: 61%)
- Make generalizations and draw inferences: 82% (global avg: 71%)
- Describe text style and structure: 67% (global avg: 52%)

(Source: PIRLS 2001 database. See Mullis et al. 2001, Exhibit 5.8, p. 141)

All the above reading strategies were taught more frequently in Greece than on average across the globe. That is in line with the emphasis given on reading instruction in the curriculum, as stated by principals, and 26% of school time devoted to reading (24% global avg) (see Tables 5.9 and 5.10 respectively from PIRLS 2001).

Digital literacy part of the curriculum for primary and secondary schools

According to the Survey of Schools, in Greece (SoS Country Profile 2012, p.4) "there are national strategies covering training measures in all areas, except for ICT in schools which is purely research focused, and e-learning which in addition to training includes research projects. There are central steering documents for all ICT learning objectives at both primary and secondary education, except for

using mobile devices which is only at secondary level. In primary and secondary schools ICT is taught as a separate subject, and at primary is also included within technology as a subject, and is a general tool for other subjects/or as a tool for specific tasks in other subjects. According to official steering documents students at primary and secondary level are expected to use ICT in class, and for complementary activities, in language of instruction and foreign languages, and for complementary activities in natural sciences. Teachers' use of ICT is not suggested in relation to specific subjects. There are no central recommendations on the use of ICT in student assessment."

Apart from the previous study, national reports regarding the integration of ICT in the curricula of Greek language lessons demonstrate various aspects of digital literacy as part of primary and secondary curricula (Centre for the Greek Language 2011). Specifically, these reports conclude that there is a need for increased integration of ICT into the language courses. Both in primary and secondary education ICT are treated as a field of the world to be explored, that is as a subject for discussion about which students are asked to read and write various texts. Furthermore, ICT are treated as pedagogical means, such as means for searching and obtaining information. Even the software for the language course serves the comprehension of various linguistic phenomena, through drill and practice exercises. Therefore, digital means and the internet are treated as learning and teaching mediums.

The previous observations are obvious in the key targets mentioned in curricula for language lessons. It is mentioned for example that students should:

- "Be familiar with computer technology so that: a) to obtain accessibility to the information provided via the Internet and multimedia and b) be able to process texts in PC." (Ministerial Decision Γ2/21072a, National Gazette 303/13-3-2003/t.B', p. 3749)
- "Be familiar with computer technology so that they can read and write texts via the PC and communicate through the PC as transmitters or receivers." (Ministerial Decision Γ2/21072a, National Gazette 303/13-3-2003/t.B', p. 3780)

The perception that ICT are media for reading, writing and communication, that is the perception of digital literacy, is not a clear aim of the curricula. Nevertheless, conclusions regarding the use of ICT as a medium of literacy practices result from some activities of language teaching textbooks. According to these activities, students are asked to implement a (cross-curricular) project, in the context of which they must use digital environments in order to communicate and interact with each other, to read and write multimodal texts and publish them on the Internet.

Moreover, special attention is given by recent language teaching textbooks to the issue of multimodality, and students are asked to decode multimodal texts and become familiar with various features of multimodality. However, the focus on multimodality remains at the level of understanding each genre as a specific and standard form.

Finally, it must be noted that the recent reform, called "New School" ("Neo Scholeio" 2010-2011), pays special attention in digital literacy. In its framework, for example, pilot curricula have been implemented in primary and lower secondary education, according to which digital literacy (with critical dimensions) is an important part of language education. It has to be noted that in those curricula, specific digital media and educative digital activities are proposed for the acquisition of literacy competencies.

For upper secondary education, the latest Instructions given for the Modern Greek Language lessons also give an enhanced focus on digital literacy (National Gazette 1562/27-07-2011). As it is stated "ICT

are used as pedagogic mediums but also as mediums for literacy practices. As pedagogic mediums they facilitate language teaching, like interactive whiteboards, digital dictionaries and text corpora, text editors but also online environments such as blogs, wikis etc. As mediums for literacy practices they are a part of the teaching material of language lessons, as by their use many specificities rise on comprehension and production of discourse (e.g. production of texts on text editors, multimodal texts etc)".

Challenge/need for action: Although some initiatives have been taken in order to focus more on digital literacy, there is still a need for higher attention on the aspects of critical digital literacy, both in the literacy curricula and the textbooks used.

5.2.4 Early identification of and support for struggling literacy learners

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

Standards as basis of assessment of reading difficulties

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

In Greece, although there are specific objectives and goals in the national curriculum for literacy learning, there are no official national benchmarks/standards for children's and adolescents' literacy performance. All the evaluation process of students' literacy achievement is based on informal assessment procedures designed by their teachers. The only means to assess nationally adolescents' literacy achievements is by the OECD's PISA assessment.

Screenings for reading competence to identify struggling readers

There is no systematic assessment in order to identify those students who are struggling with reading competence. Teachers assess pupils daily and hold compulsory exams, but not for the purpose of screening based on standards³¹. Given that struggling readers are considered as a group of students

³¹ See: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Greece:Assessment_in_General_Lower_Secondary_Education (Accessed August 27, 2014).

with special educational needs by the Greek Educational Authorities (Greek Law 3699/2008), their assessment of language and reading problems is implemented by multidisciplinary teams operating in the local "Centres of Differential Diagnosis and Support (KEDDY's)". These centres provide diagnoses for all types of children with special educational needs who have been referred by their teachers³² (EURYDICE). Additionally, official screening services for struggling readers are provided by the Medical-pedagogical Centers³³, which operate within hospitals. It is notable that in Greece there are very few standardised tools for assessing reading achievement, particularly for the assessment of reading in adolescents and beyond.

Challenge/need for action: Attention should be given to screening reading competence on an ongoing basis, as there is no systematic assessment of children and adolescents in order to identify struggling readers. For such an assessment, specific literacy standards should be described, regarding multiple levels of achievement based on pupils' age.

Supporting struggling literacy learners

Number of struggling readers receiving remedial instruction

PIRLS offers some data concerning issues of remedial instruction in primary schools. One question was whether all pupils receive remedial instruction when needed. There is some evidence that not all children in need of remedial support in reading receive such support when they need it. In PIRLS 2001, teachers in Greece estimated that only a 3% of students were in need of remedial instruction in reading, while it was estimated that no child (0%) received remedial instruction when they needed it (PIRLS 2001, Exhibit 5.21, p. 159). However, as noted earlier, 22.6% of students in Greece scored at or below the Low PIRLS benchmark.

Kinds of support offered

It is crucial that teachers provide support measures to help struggling readers. European Countries differ widely in their approaches, from in-class support with additional support staff (reading specialists, teaching assistants or other adults) working in the classroom together with a teacher, to out-of-class support where speech therapists or (educational) psychologists offer guidance and support for students with reading difficulties.

In Greece it is the duty of a teacher to take the special needs of their pupils into consideration while implementing the curriculum. Teachers cooperate with school advisors in providing pedagogical support. School advisors are responsible for providing scientific and pedagogic support and guidance to teachers and schools³⁴.

In addition to school advisors, Centres for Differential Diagnosis, Diagnosis and Support of Special Education Needs ("KEDDYs"), also help teachers to perform their work. The centres not only assess the severity and type of difficulties pupils face, but also provide consultation and information for the

³² See: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Greece:Special_Education_Needs_Provision_within_Mainstream_Education. (Accessed August 22, 2014).

³³ See: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Greece:Special_Education_Needs_Provision_within_Mainstream_Education (Accessed August 27, 2014).

³⁴ See: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Greece:Teaching_and_Learning_in_Primary_Education (Accessed August 27, 2014).

teaching staff³⁵. The public pre-primary and primary education provide a number of options for those children considered as at-risk or struggling readers. (a) Children who are diagnosed by KEDDY as having special educational needs (SEN) related to literacy difficulties (e.g., dyslexia, dysorthographia, specific language impairment) are treated in mainstream kindergartens or primary schools respectively with the appointment of extra specialised staff. These SEN children receive extra educational support in the same classroom as other children or in small groups with children of similar poor performance. (b) A number of pre-primary and primary schools in specific geographic zones are considered as schools from "zones of educational priority" (ZEP), where specific pedagogical measures are taken in order to meet the needs of children from poor socio-economic families which face literacy difficulties. Also, there are a number of specialised educational programmes in the mainstream kindergarten schools focused on minority children (e.g. Roma, Muslim children in Northern Greece) who are considered as children with poor literacy performance. The core part for these specialised programmes is the enhancement of children's literacy skills. (c) Children with very poor literacy performance are eligible to repeat the school year according to a decision based on the School Counselor's evaluation and the parents' agreement.

Lower secondary schools (according to Ministerial Decision 24136/Γ7/21-2-2013) run a support teaching programme, focused particularly for pupils who face learning difficulties in language learning (and other core subjects). The programme aims to reinforce educational level of pupils, prevent dropout and combat social exclusion as well as social inequalities³⁶.

The educational web portal e-yliko.gr and photodentro.edu.gr/ gathers digital support material on all lessons and levels of Secondary Education for educators³⁷.

Struggling readers' support is included in the general provision of special education services which depend on the pupils' educational needs. These services may include the following: differential diagnosis, diagnosis, evaluation and depiction of the special educational needs, as well as systematic pedagogical interventions with specialised and properly adjusted educational tools and programmes³⁸.

Individualised Education Programme can be created for struggling readers given that they are considered as pupils with special education needs.³⁹ Also Remedial Teaching ("Enischtyiki Didaskalia") is applied in primary and lower secondary schools, and additional teaching support ("Prosthethi Didaktiki Stirixi") in upper secondary schools⁴⁰.

³⁵ See: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Greece:Conditions_of_Service_for_Teachers_Working_in_Early_Childhood_and_School_Education (Accessed August 27, 2014).

³⁶ See: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Greece:Organisation_of_General_Lower_Secondary_Education (Accessed August 27, 2014).

³⁷ See: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Greece:Teaching_and_Learning_in_General_Lower_Secondary_Education (Accessed August 27, 2014).

³⁸ See: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Greece:Educational_Support_and_Guidance (Accessed August 27, 2014).

³⁹ See: <https://www.european-agency.org/country-information/greece/national-overview/identification-of-special-educational-needs> (Accessed August 27, 2014).

⁴⁰ See: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Greece:Support_Measures_for_Learners_in_Early_Childhood_and_School_Education (Accessed August 27, 2014).

For any pupil falling behind in school performance and not being able to follow and participate effectively in the educational process, or pupils hoping to improve their performance, institutions of Remedial Teaching and Additional Teaching Support are foreseen⁴¹.

Based on responses provided by teachers in PIRLS 2001, no students (0%) in Greece are in classes where the teacher arranges for students falling behind in reading to work with a specialised professional (e.g., a reading specialist or a speech therapist) (Table 24). This is well below the EU average (32%), confirming the relative disadvantage under which schools and teachers in Greece work. Unfortunately, in Greece until 2015 there is no provision of specialised teachers for reading in the classroom for struggling readers. Students who face reading disabilities attend inclusive classes with teachers who usually have a general special education training. Speech and language therapists provide support only in certain cases in special schools. A high percentage of teachers in Greece (50%) as on average across EU countries (37%) say that they wait for students who are falling behind in reading to mature. Ninety four percent of students in Greece and 92% of students across the EU-17 countries are in classes where the teacher spends more time working individually with students who are falling 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, Greece and EU Average (PIRLS 2001)

	Greece (Yes)	EU-17 Average (Yes)
I have student work with a specialized professional	0	32
I wait to see if performance improves with maturation	50	37
I spend more time working on reading individually with the student	94	92
I have other students to work with students falling behind in reading	48	55

Support for struggling readers – a legal right?

Law 4115/2013 safeguards the inclusion of all students into the education system. Also, it guarantees every child's right to education without discrimination⁴².

In Greece, special education constitutes an integral part of compulsory, free of charge, public education. The State is obliged to ensure public education is provided to disabled individuals of all ages and on all educational levels. Pupils' special educational needs define the specific educational framework offered⁴³.

Following the article 3 of Law 3699/2008, pupils with disabilities and special educational needs include pupils who display significant learning difficulties during their schooling, long-term or short-term. These may be due to sensory, mental, cognitive, developmental, psychological and neuropsychological

⁴¹ See: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Greece:Support_Measures_for_Learners_in_Early_Childhood_and_School_Education (Accessed August 27, 2014).

⁴² See: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Greece:Reforms_in_School_Education (Accessed August 27, 2014).

⁴³ See: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Greece:Educational_Support_and_Guidance (Accessed August 27, 2014).

disorders, affecting school adaptation and learning processes. Pupils with, inter alia: speech disorders and special learning difficulties (e.g. dyslexia, dyscalculia) fall into this category⁴⁴.

Also, it is said that pupils with learning difficulties, who do not fall under the category of pupils with a disability and special educational needs or pupils lacking the required knowledge of Greek, constitute groups of pupils for which targeted interventions are set in order to reduce school dropout, as well as prevent and combat social exclusion⁴⁵.

Challenge: Strengthening remedial support There is strong evidence from the PIRLS data that not all children in need of remedial support in literacy receive it. Students who do not reach a minimal standard of literacy level should have a legal right to individual support from specialised teachers trained in reading instruction. In Greece, the very low provision of specified activities for struggling readers is given by general special education teachers.

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

Entry requirements for Initial Teacher Education

The primary education teachers are educated in Universities, in multiple Departments of Pedagogy across the country. The secondary teachers are also educated in Universities, in multiple departments, depending on their field (e.g. Department of Philology, Department of Mathematics, Department of Biology etc). Admission to the university departments is based on the final test score of candidates to the *Panhellenic Exams* (panelinies exetasis), held each year.

Since 2010 (Law 38/48/2010), only graduates who have attended a semester of pedagogy during their studies, have acquired a relevant master's degree or attended the School of Pedagogical and Technological Education are considered to have the pedagogic and teaching adequacy so as to be recruited to public schools.

Teacher recruitment is mainly based on written exams held by the Higher Council of Staff Selection (Anotato Simvoulío Epilogis Prosopikou - ASEP). For primary education teachers, the tests examine knowledge of Modern Greek Language and Literature, Maths, Science and pedagogic competency. For secondary teachers, exams focus on their scientific knowledge of the field but also on their pedagogic competency. Only language teachers are assessed on their knowledge around literacy, especially regarding Modern and Ancient Greek Language and Literature. Further expertise, based on qualifications such as a relevant master or doctorate degree and previous teaching experience (on private education or in foreign countries) are also taken into account for the final score.

A table of successful candidates, based on their exams' score and other qualifications, sets those eligible for recruitment on public schools.

The last year an ASEP teacher exam was held was 2008. Since then, yearly recruitment of permanent, deputy and hourly-paid teachers is mainly based on the same table. Due to the financial crisis of Greece, no more ASEP exams have been planned, permanent recruitment is set to minimum and

⁴⁴ See: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Greece:Special_Education_Needs_Provision_within_Mainstream_Education (Accessed August 27, 2014).

⁴⁵ See: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Greece:Support_Measures_for_Learners_in_Early_Childhood_and_School_Education (Accessed August 27, 2014).

education needs are mostly fulfilled by deputies, financed by the NSRF 2007-2013. Deputies do not have a permanent teaching position in a school or province and are eligible to change positions every year, depending on schools' needs.

Challenge/need for action: Only secondary language teachers are assessed on their literacy knowledge, as there is no focus on literacy across the curriculum during the recruitment tests. More attention should be given to all secondary teachers and their literacy competencies. Also, the aim of having high quality teaching requires teachers with permanent positions at public schools, rather than deputies or hourly-paid teachers. Further actions need to be taken for recruiting teachers, both at primary and secondary schools.

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

The primary teachers are educated in Universities following a 4 year Bachelor programme. They follow a model of initial teacher education which focuses both on scientific knowledge and pedagogic competency. All primary teacher trainees are required to have a practicum in schools for a semester or more according to the programs of each university.

Table 25: Proportions of Grade 4 students taught by teachers with varying qualifications in PIRLS 2001

	Completed University Post-grad Degree	Completed Bachelor's Degree or Equivalent	Completed Post Secondary Education but not a Degree	No further than Upper Secondary
Greece	No data available	21	79	0
EU-17	No data available	70	16	14

Source: PIRLS 2003 (see Mullis et al., 2003, Exhibit 6.4, p. 172).

Length of required training of secondary teachers

The secondary teachers are educated in Universities, following a 4 year Bachelor programme. They follow a model of initial teacher education which is mainly focused on scientific knowledge. Only Departments for language teachers focus on literacy competencies, as their curriculum is based on knowledge about Greek language, linguistics, literature, philosophy, history and pedagogy (subjects differ according to the curriculum of each Department). Only teacher trainees attending Departments of Philosophy and Pedagogy are required to have a practicum in schools.

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.

According to the latest ASEP exams for recruiting teachers (Presidential Decree in the National Gazette 515/08-10-2008), the important competencies examined focused mainly on scientific and theoretic knowledge of candidates and their pedagogic competency. Specifically, for primary teachers, literacy expertise regarding: knowledge of the literacy curriculum, basic linguistic concepts, phonological, morphological and grammatical knowledge, composition of written texts and genres, and the role of literature in the curriculum.

For secondary language teachers, literacy expertise regarding:

- 1) Ancient Greek Language and Literature: knowledge of the curriculum, basic knowledge of ancient Greek literature (periods, writers etc) and grammar of ancient Greek, translative ability (between ancient and modern Greek), knowledge of specific ancient literary works which are taught in school.
- 2) Modern Greek Language and Literature: knowledge of the curriculum, basic grammatical knowledge, literature history knowledge (periods, writers, characteristics etc), hermeneutic ability of literary texts and knowledge of specific literary works which are taught in school.
- 3) History: knowledge of the curriculum and historic knowledge of specific periods

All the other secondary teachers (mathematicians, science teachers etc) are not assessed for any literacy competencies, but only for their scientific knowledge (e.g. mathematic and scientific concepts).

All teachers, either primary or secondary, are also examined on their pedagogic competence, which regards:

- 1) General Pedagogic Methodology: current teaching approaches, issues of everyday school life, school as an institution within society
- 2) Specific Pedagogy of literacy lessons: ability to solve teaching and pedagogic problems within a given classroom setting, ability to make teaching plans by using modern pedagogic approaches

Challenge/need for action: Teacher competency needs to focus mostly on pedagogic ability regarding literacy, rather than theoretical knowledge of the curriculum or the specific scientific field. Practicum is also an important part of initial teaching education, which isn't mandatory for every secondary teacher in Greece.

Continuing Professional Development (CPD)

Continuing professional development at secondary level is optional, although effort is being made to provide incentives to the continuously trained teachers' advantage⁴⁶. In Greece, the government has made efforts to provide incentives to the continuing professional development such as granting Sabbatical leaves and small financial benefits for CPD attendance⁴⁷.

Time frame and quality standards of CPD

According to information available on Eurydice "Continuing professional development", the aims of the in-service education and training of teachers (INSET), in Greece, are the following: teacher training focused on the new curricula in Compulsory Education; teacher training on ways to organise and implement Experimental Actions and Projects, based on the principles of experimental and inquiry-based learning; teacher training specialised in ICT, drama, music, arts and intercultural education, those who are employed today in all-day primary schools using a unified and revised curriculum; and induction INSET for newly-appointed and substitute teachers - INSET for teachers on the use and application of ICT in the teaching practice.

⁴⁶ See: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Greece:Continuing_Professional_Development_for_Teachers_Working_in_Early_Childhood_and_School_Education (Accessed March 31, 2015).

⁴⁷ See: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Greece:Continuing_Professional_Development_for_Teachers_Working_in_Early_Childhood_and_School_Education (Accessed March 31, 2015).

Teachers who are subject to regular training are selected from lists drawn up by the Education Regional Directorates. The registration order is based on: teachers' need for training, schools' operational needs, teachers' seniority and other possible needs. The teaching, the exercises programmes and the overall number of teaching hours involved are specified by Presidential Decrees or Ministerial Decisions.

There are a special limited duration training programmes, addressed to all in-service teachers as well as teachers employed in Special Education school units. The aims of this action is the implementation of specialised educational support to students with disabilities or/and special educational needs in general education schools through properly trained teaching staff supporting students with disabilities or/and special educational needs in the classroom in parallel with the class .

In addition, in Greece, the State Scholarship Foundation (IKY) implemented the programmes "Comenius-School Education" (sectoral programme), "In-service Training" and "Assistantships" (included in "Comenius-School Education"). It is important to state that the "Comenius in-service Training Programme" helps teachers improve their teaching skills and come in contact with other European countries' educational systems through their participation in: courses /seminars inside and outside the European data basis lasting at least 5 days, on the spot attendance and interaction with other professionals at their workplace in another country (job shadowing), conferences/seminars organised by a Comenius network or partnership, an accompanying measures plan, a national unit, or a representative European association active in the field of school education.

Another example is the "Major in-service Teacher Training Programme" which has been designed in the context of the "National Strategic Reference Framework (ESPA) 2007-2013 Operational Programme (OP)", entitled "Education and Lifelong Learning". This programme displays innovative features for teachers, such as group processes, implementation of modern educational methods (collaborative development of knowledge, experiential exercises, case studies, project plans, role play, simulations, dialogue techniques, education through art etc.); development of students' "horizontal abilities" transversing all school activities (creativity, critical thinking, initiative taking, communication, cooperativeness, cross cultural skills, sense of social responsibility, programming of actions, familiarisation with art, undertaking of initiatives, "learn how to learn" ability); implementation in authentic learning environments. Moreover, teachers' training involves both face-to-face and on-line participation, including seminars and support for the trained teacher to meet modern challenges arising in the class.

Also in the context of the "National Strategic Reference Framework (ESPA) 2007-2013 Operational Programme (OP)", the Action "Teachers education for the utilisation and implementation of ICT in the teaching process" has been implemented. The main goal is to prepare teachers for the challenges of knowledge and information societies, focusing on the Information Technologies utilisation and use in the teaching process. Moreover, teachers should be in service during the training period, so they can use in practice, in their class the acquired knowledge and skills, which actually constitutes an integral part of the training process itself⁴⁸.

National standards regarding CPD: In Greece, CPD is provided in the form of educational programmes by educational bodies upon approval of the Ministry of Education, Research and Religion. Education bodies can be the following: school units; regional education centres; universities;

⁴⁸ See: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Greece:Continuing_Professional_Development_for_Teachers_Working_in_Early_Childhood_and_School_Education (Accessed March 31, 2015).

technological education institutions (TEI); the Higher School of Pedagogical and Technological Education (ASPAITE); the Educational Policy Institute; the National School of Public Administration; school Advisors⁴⁹.

Time spent on professional development related to literacy

No data are available concerning the participation rate of teachers in literacy-related professional development. Teachers' professional development is occasional and implemented in general issues of the educational system or to specific issues of the current curriculum.

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

5.2.6 Digital literacy as part of initial teacher education

According to the report *ICT and Initial Teacher Education* (Rizza, 2011), there is no policy or uniformity in the integration of ICT into initial teacher training, in the Greek context. The institutions are free to decide whether or not to include ICT in initial teacher education (European Commission/EACEA/Eurydice, 2011).

Challenge: Fostering digital literacy skills of teachers and students needs a stronger emphasis.

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

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

In Greece there are no universal and compulsory observation or assessment tools for children entering each grade in primary or secondary education. Therefore, the identification of literacy strugglers depends on each teacher's personal observation and assessment. Even the compulsory exams at the end of each school year in secondary education (which aim to promote students to the next grade) are formed in accordance with the criteria of each school's teachers. Moreover, steering documents do not define specific criteria for awarding grades, in order for teachers to classify their students according to their literacy difficulties and identify literacy strugglers.

The additional support that pupils who experience difficulties in their literacy development need in order to reach their full potential relies mostly on teachers. These pupils receive remedial instruction and teachers implement several approaches, such as waiting (assuming increasing maturity will solve the problem), assigning extra homework, providing support within the classroom, e.g. individualising instruction, providing more favourable conditions (allowing tasks to be done more slowly), and asking for help from other students (EACEA/Eurydice 2011, pp. 68-29).

In the last decade, however, special attention has been given to initiatives for tackling reading difficulties. One example of such practices is the programme "Screening pupils with learning difficulties – Creation and standardisation of Twelve Assessment Tools" (University of Patras, Porpodas 2008)⁵⁰. The project aims to design and develop a 12-tools test for tackling learning difficulties, covering a

⁴⁹ See: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Greece:Continuing_Professional_Development_for_Teachers_Working_in_Early_Childhood_and_School_Education (Accessed March 31, 2015).

⁵⁰ See: <http://www.elemedu.upatras.gr/tests-madyskolies/aim.htm>.

specific age range (pre-school children up to adolescents). Under this project, a software for automated tackling of learning difficulties in writing and speaking have been developed⁵¹.

Similar initiatives are identified in the project “Primary and secondary prevention of learning difficulties and speech problems in preschool and school age for all children” (Pedagogical Institute). The programme aims at early detection of learning difficulties to ensure early intervention and diagnosis, support and treatment, in order to prevent dropout.

Finally, it must be noted that, according to the Ministerial Decision 60 / 2006 (Article 27), students with diagnosed reading and writing difficulties have oral, instead of written, exams.

5.3 Increasing participation, inclusion and equity

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

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

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

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

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

⁵¹ See: http://www.ilsp.gr/files/tetra_selido_FNL.pdf.

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.

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

5.3.1 Compensating socio-economic and cultural background factors

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

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

Gini index

The Gini index is the most commonly used measure of inequality, and represents the income distribution of a nation's residents with values between 0% (maximum equality) and 100% (maximum inequality). In the European countries participating in ELINET the range is from 22.6% in Norway to 35% in Spain (for an overview of European countries see table A1 in Appendix B). With 34.3% Greece 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). 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). With 16% Greece is at the lower end of distribution of all European countries participating in ELINET. 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 PISA 2012 database offers information about mother's level of education referring to ISCED levels. The figures for Greece are presented below and point to a relatively high level of education, compared

with the average figures for the European countries participating in PISA 2012 (shown in parentheses) (for an overview of European countries see table A3 in Appendix B).

No schooling: 1% (2%)

ISCED 1: primary education: 6% (5%)

ISCED 2: Lower secondary education: 12% (11%)

ISCED 3B & 3C: Upper secondary education: 2% (16%)

ISCED 3A and 4: Post-secondary non-tertiary education: 38% (28 %)

ISCED 5B: Tertiary education (first stage) with occupation orientation: 12% (17%)

ISCED 5A and 6: Tertiary education (first stage) with academic orientation 29% (25%)

Teenage mothers

According to UNICEF (2001) the percentage of teenage mothers is 11.8 for **Greece**. The range for the European countries participating in ELINET is from 5.5% in Switzerland to 30.8% in United Kingdom (for an overview of European countries see table A4 in Appendix B).

Single parent

According to Eurostat (2012, Figure A 7), in **Greece** the percentage of children living mainly with a single parent is 2.5%. The range for the European countries participating in ELINET is from 1.4% in Croatia to 30% in Denmark (for an overview of European countries see table A5 in Appendix B).

Migrant parents

According to PISA 2012 about 10% of the pupils in Greece have a migration background indicating a slightly lower percentage than that of EU countries (12%) participating in ELINET. According to PISA 2012, the mothers of 17% (EU – 18%) and the fathers of 13% (EU – 15%) of children in Greece were born outside the country.

Primary language spoken at home different from language used at school

According to PISA 2012, in Greece, 95% of pupils reported that they always spoke the language of the PIRLS test at home, while 5% reported that they did so sometimes or never. There is a large and significant difference on reading performance – 72 points – between those who always spoke the language of test at home and those who did so ‘sometimes or never’. This exceeds the corresponding EU-24 average difference (52) by 20 points.

Challenge: Greece, according the most recent national data from PISA 2012, does not seem to face a high percentage of migrant students who are not speaking the Greek language at their homes. However, the rapid increase of refugees and migrants in Greek society after 2014 is anticipated to increase abruptly the participation of students with no or low levels of knowledge of Greek language in schools.

This disadvantaged group is at risk in their literacy achievement and needs attention and support. All PISA results (2000, 2003, 2006, 2009, 2012) gave clear evidence that the “poor achievers” in general shared three characteristics: low SES, migrant background and male gender.

5.3.2 Support for children with special needs

Not only children from culturally disadvantaged families are “at risk” in their literacy development but also those with very low birth weight and severe prematurity, factors that are associated with developmental disabilities, including reading and writing disabilities. Also cognitive and sensory disabilities must be considered.

Very low birth weight and severe prematurity

According to OECD (2012, Figure 1.9.1, p. 33) the percentage of live births with a birth weight under 2500 grams in **Greece** was 10% at 2010. The range in the OECD report is from 3.6% in Iceland to 11.7% in Cyprus. According to an international survey (March of Dimes, PMNCH, Save the Children, WHO, 2012) the percentage of live births with a gestational age <37 weeks is 6.6% in **Greece** (with a range from 5.5% in Croatia to 14.7% in Cyprus).

Cognitive or sensory disabilities

Special Education services are provided to children with cognitive or sensory disabilities when they entered in the compulsory education (that means from Kindergarten and onwards). These services may include the following: differential diagnosis, evaluation and depiction of the special educational needs, as well as systematic pedagogical interventions with specialized and properly adjusted educational tools and programmes⁵². Individualized Education Programme can be implemented for pupils with cognitive or sensory disabilities, and required technical aids and educational materials can be provided accordingly⁵³. Also, additional individualized teaching support (“Parallili Stirixi”) in primary and secondary schools is provided for pupils who have severe cognitive or sensory disabilities (Greek Law 4186/2013).

5.3.3 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 74.6%. Greece does not yet reach the European benchmark for at least 95% of children between age 4 and the start of compulsory education participating in ECEC (for an overview of European countries see table C1 in Appendix B). 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 89.7% for 5-year-olds, 45.1% for 4-year-olds, and 1.7% 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 proven in many studies. The duration of attendance is associated with greater academic improvement (Mullis et al. 2012b). Also in Greece there is a positive relationship between the length of preschool education attendance and the average reading score in grade 4, as PIRLS 2001 data show (Mullis et al. 2003, Exhibit 5.1, p. 130).

⁵² See: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Greece:Educational_Support_and_Guidance (Accessed August 27, 2014).

⁵³ See: <https://www.european-agency.org/country-information/greece/national-overview/identification-of-special-educational-needs> (Accessed August 27, 2014).

These are the figures for Greece:

- 3 years and more: 21% (average reading score 543)
 - Between 1 and 3 years: 50% (average reading score 522)
 - 1 year or less: 25% (average reading score 524)
 - Did not attend: 5% (average reading score 512)
- (For an overview of European countries s. table C3 in Appendix B).

No child should be excluded from preschool because parents cannot afford to send their children to preschool/kindergarten institutions if they have to pay. Greece belongs to the half of the European countries where the entire period of ECEC is free. Many countries provide at least one year of free pre-primary education. Day care services are provided from the age of 6 months until the age 5 by municipal authorities and parents contribute financially for board fees (EURYDICE⁵⁴).

Challenge: The potential benefits of attending ECEC are particularly important for children, given that the more the children attend ECEC the better is their reading performance later on in grade 4. A matter of concern is the low enrollment rate in ECEC before the age of 4. Greece should strive to increase the number of children who attend preschool education more than 3 years.

5.3.4 Provisions for preschool children with language problems

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

According to Eurypedia⁵⁵, in Greece children with special needs (included students with language problems) get support mainly in mainstream Kindergartens, in inclusive classes operating within mainstream Kindergartens and in some cases in special Kindergartens. However, there is no systematic assessment of children in order to identify language development problems. Assessment of language problems is implemented by multidisciplinary teams operating in the "Centres of Differential Diagnosis and Support (KEDDY's)" only for children who have been referred by their teachers⁵⁶. In Greece, there is no specific treatment for language problems in mainstream Kindergarten settings, but there is provision for support from special educational needs teachers and educational psychologists in special kindergartens or in inclusive classrooms hosted in the mainstream kindergartens. Speech and language therapists or other specialised professionals provide support only in certain cases in special Kindergartens (EURYDICE et al., 2014, p. 109).

⁵⁴ See: <https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Greece:Redirect> (Accessed August 21, 2014).

⁵⁵ EURYDICE. <http://www.european-agency.org/country-information/greece/national-overview/special-needs-education-within-the-education-system> (Accessed August 22, 2014).

⁵⁶ EURYDICE. https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Greece:Special_Education_Needs_Provision_within_Mainstream_Education (Accessed August 22, 2014).

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

In PISA 2009, the gap between native students and students with a migrant background was higher than in EU countries on average (57 vs 38 in EU). The mean score difference between those who always spoke the test language at home, and those who spoke another language was higher (79 vs 54), and is the equivalent of two years of schooling.

Reception classes and cross-cultural (*diapolitismika*) primary and secondary (lower and upper) education schools serve a large number of foreigners, with the aim of facilitating foreign pupils' integration in the education system⁵⁷.

Reception Classes ("Taxeis Ypodochis") and Tutorial Courses ("Frontistiriaka Tmimata") for foreign pupils are set by virtue of Ministerial Decision (National Gazette 1789, B/28-09-1999). This scheme allows every school unit to establish organic classes for students who do not possess an adequate knowledge of the Greek language. Two different reception classes are available:

a) R.C. I: Students who have little or no knowledge of the Greek language attend the R.C. I. They attend intensive language lessons for one school year, while attending some lessons (e.g. Art, P.A., Science) with their regular class. For lower secondary school students, RC I consist of 14 hours/week of language lessons, 4 hours/week of maths and 4 hours/week of other lessons, if needed.

b) R.C. II classes are for pupils who have an average knowledge of Greek language, but may still face some difficulties in understanding and attending regular classes. For pupils participating in RC II, language support is provided in regular classes, parallel to normal teaching support. RC II attendance lasts two years, at max.

Schools can also organise language and culture lessons of pupils' country of origin for 4 hours/week, after the school day, if 7-15 students with the same mother language attend the same (or neighbouring) school and a teacher with such knowledge is available.

For pupils who haven't participated in reception classes or who still face language difficulties after participating in them, Tutorial Courses may be offered. Pupils are usually provided with additional teaching support after the school day, up to 10 hours a week. Usually Modern Greek is taught, but other subjects that are considered important may be on the agenda, too. Pupils are also helped to prepare for the following school day.

By the virtue of Law 2413/1996, schools with over 45% of the student population being foreign or repatriated were changed into Cross-Cultural ("Scholeia Diapolitismikis Ekpaidefsis") schools. There are 26 cross-cultural schools in Greece (13 primary, 9 lower secondary and 4 upper secondary) which is the 5.8% of the total number of schools. These schools adapt their curricula according to pupils' special needs and may have additional or alternative classes, with their priority being lessons of Greek language and culture.

⁵⁷ See: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Greece:Organisation_of_General_Lower_Secondary_Education (Accessed August 27, 2014).

There are also minority (*Meionotika Scholeia*) schools operating in areas with dense muslim-turkish population. In such schools, instruction is bilingual, usually Greek and Turkish. Minority schools often operate to cover the educational needs of Muslims residing in the geographical department of Thrace (Pomak, Roma and Turkish origin)⁵⁸.

Challenge: Support for migrant children. Although multiple initiatives have taken place to support migrant children, the gap between native students and students with a different language spoken at home remains higher than in EU countries on average. As mostly the aforementioned initiatives were held during specific periods during the NSRF financial support, a more sustainable and long-term solution needs to be implemented.

5.3.6 Preventing early school leaving

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

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

Considering the most recent research conducted in a local level (Pedagogical Institute 2008) for the students of school year 2003-04, some of the main findings regarding early school leaving are:

- Early school leaving in lower secondary education is 6.51% and in upper secondary education is 12.81%.
- The dropout rate is higher for boys than for girls.
- The dropout rate is lower in urban areas for the general secondary education and higher in rural areas for the vocational secondary education.
- Over the last two decades of the 20th century, early school leaving at national level showed a significant drop. However, this trend has not continued in the first decade of the 21st century.

Following the Eurostat, in Greece, the rate of early school leavers was 9.0 % in 2014, 10.1 % in 2013, and 11.4% in 2012. The previous rates are somewhat below the average EU-27 (11.3% in 2014, 12.0% in 2013, 12.8% in 2012). However, the target value of the early school leaving (ESL) rate set for 2020 is 9.7%. The duration of compulsory education in Greece is 10 years. Children start school at the age of 5; compulsory schooling ends at 15 years (European Commission, 2014: 2).

This means that at the national level of education policies important measures have to be taken. In recent decades, the main measures about early school leaving are the following:

- Specialised authorities have been established with a view to mapping early school leaving research ("Observatory of the Transition of Graduates of Secondary Education and Initial Vocational Education and Training in the Labour Market", Pedagogical Institute and "Observatory for recording and addressing dropout issues", Educational Policy Institute).

⁵⁸ See: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Greece:Support_Measures_for_Learners_in_Early_Childhood_and_School_Education (Accessed August 27, 2014).

- A series of measures has been taken in terms of implemented pedagogy in schools (such as changing textbooks, establishing Flexible Zone, All-Day Schools, individualised teaching, etc.). These measures aim to address school failure which constitutes one of the main causes of early school leaving.
- Two supplementary intervention programmes have been designed and implemented for students who face learning difficulties: "Remedial Teaching" (Enischitiki Didaskalia) and "Additional Teaching Support" (Prostheti Didaktiki Stiriksi).
- A series of measures has been taken for the inclusion and integration of immigrant students, such as Reception Classes (Taxeis Ypodochis) and cross-cultural schools (Diapolitismika Scholeia). Moreover, additional programmes have been designed and implemented in order to prevent specific groups of students with high rates of early school leaving (such as Roma children and Muslim).
- Second Chance Schools have been established for students who left school early.
- One-year compulsory education in kindergarten has been established, which is thought to significantly contribute to the smoother progress in school.
- In recent years, due to the financial crisis, additional social support services (such as free meals) are provided to students who are at high risk of dropping out of school.

As concerns students (ISCED 1-6) aged 15-24 years, in Greece, 63.2% were in some form of education in 2011, which was somewhat above the average EU-27 (61.9%). This indicator is on a slightly increasing trend: by 2012 it stood at 64.4%. The percentage of 18-year olds in education was 70.4% in 2011, which situated Greece well below the EU-27 average (80.7%). By 2012, this indicator dropped to 67.4% (European Commission/EACEA/Eurydice, 2012).

5.3.7 Addressing the gender gap among adolescents

While the performance of the readers – according to PISA 2000 - 2012, - had remained roughly the same during the first decade of the 21st century, one problem remains persistent: Boys are over-represented in the lowest proficiency levels (32.2% boys versus 13.3% girls, PISA 2012). As PISA data show the **gender gap** among 15-year-old girls and boys is over one year of schooling. As this gap is mainly caused by the decline of reading motivation and reading activities between primary and secondary school, schools together with families, libraries and communities should support boys' literacy development in this critical phase.

Challenge: Gender gap. In Greek schools, families and libraries should work together to motivate and support young boys' literacy development during the critical phase.

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

Programmes against poverty

The "Educational Priority Zones" (ZEPs) have been established in order to compensate for the learning gaps of students derived from areas with low educational and socio-economic indicators. In the schools belonging in the ZEP areas small sized classes are formed (max 8 children) and alternative and flexible educational programmes implemented in order to compensate for linguistic, cognitive and

socio-emotional deficits⁵⁹ due to socio-cultural deprivation. The ZEP programme seeks to ensure equal educational opportunities and capabilities for all pupils, some of its actions include positive actions and additional funding to schools in regions where education is met with hardships relating to geographical, social or/and economic factors⁶⁰.

Two other supplementary intervention programmes which are designed for students who face learning difficulties have been used extensively by students coming from poor families. The first one is called "Remedial Teaching" (Enischitiki Didaskalia), it is applied in primary and in junior high schools where students attend extra teaching hours in lessons of Literacy, Mathematics and Science during or after the end of the timetable. The second one is called "Additional Teaching Support" (*Prosthethi Didaktiki Stiriksi*), it is applied in the Senior High School and implemented for selected students with learning difficulties, who attend extra teaching hours (up to 3 hours per day) in basic lessons (e.g., literacy, mathematics, science) and optional lessons (e.g., foreign languages) in Senior High School⁶¹.

There are also "Second Chance" schools for pupils 18 years of age, who haven't completed compulsory education. Second chance schools provide graduates with a certificate equivalent to that of lower secondary education⁶².

With special regards to career orientation, emphasis is placed on formulating a properly functioning system that provides information and individualised support from lower and upper secondary school throughout the lifetime. Regarding this matter, 79 counselling and guidance centres have been established all over the country⁶³.

Furthermore, a National Action Plan for Youth Employment has been published and implemented since 2013⁶⁴.

Family literacy programmes for migrant parents

There are no official data for national efforts in Greece to implement family literacy programmes for migrant parents.

Challenge: Parental involvement is limited. In Greece there is a paucity of programmes and efforts for involving parents in school. Therefore, no family literacy programmes have been implemented nationally by the government or by any national organisation. Given that migrant parents have limited access to Greek written language, specific efforts for the enhancement of the home literacy environment of migrant parents need to be implemented in order to motivate them to engage their children in a variety of literacy behaviours.

⁵⁹ See: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Greece:Support_Measures_for_Learners_in_Early_Childhood_and_School_Education (Accessed October, 22, 2015)

⁶⁰ See: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Greece:Secondary_and_Post-Secondary_Non-Tertiary_Education (Accessed August 27, 2014).

⁶¹ See: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Greece:Support_Measures_for_Learners_in_Early_Childhood_and_School_Education (Accessed October, 22, 2015)

⁶² See: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Greece:Organisation_of_General_Lower_Secondary_Education (Accessed August 27, 2014).

⁶³ See: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Greece:Secondary_and_Post-Secondary_Non-Tertiary_Education (Accessed August 27, 2014).

⁶⁴ See: https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Greece:Reforms_related_to_Transversal_Skills_and_Employability (Accessed August 27, 2014).

Policies / programmes to prevent early school leaving

In Greece, the National Action Plan for Youth Employment announced early in 2013 will integrate all the actions and programmes of the National Strategic Reference Framework (2007-2013) directed at young people. It is funded by the European Social Fund as well as by the European Regional Development Fund. This new Action Plan aims to implement targeted policies and measures to develop employment and entrepreneurship for two age groups – 15-24 year olds and 25-35 year-olds – placing particular emphasis on those less qualified. Three ministries cooperate together: the Ministry of Labour, Social Security and Welfare; the Ministry of Development and Competitiveness; as well the Ministry of Education, Research and Religion. The total budget of the Action Plan is EUR 600 million and approximately 350,000 people are expected to benefit (European Commission/EACEA/Eurydice, 2013b: 96).

Furthermore, with the Educational Priority Zones (ZEPs) set, there are additional resources allocated to schools with a high concentration of disadvantaged populations, which is a measure that seeks to support improvements to educational provision at school level, such as reducing the pupil/teacher ratio or providing additional support to pupils (European Commission/EACEA/Eurydice, 2013b: 23).

Within the framework of the Operational Programme "Education and Lifelong Learning" (National Strategic Reference Framework 2007-2013), two different projects aimed to promote the education of children with migrant backgrounds started to be implemented at the end of 2010. The first project "Education of Foreigners and Repatriates" targets primary and secondary public institutions with more than 10% of immigrants and repatriates in their student population. Its main objective is to improve school performance among the targeted pupils through, for example, providing special reception classes or fostering intercultural communication at school level. The second programme aims to support the integration of children from the Muslim minority into the educational process, whether in public schools or in private ethnic minority schools.

At the same time, within the framework of the above-mentioned Operational Programme 'Education and Lifelong Learning', an initiative aiming to the promote education of Roma children began at the end of 2010. It includes, for instance, the following activities: improving access and attendance in pre-school education, school interventions to support the integration of and regular attendance by Roma pupils, further training of teachers, or linking schools, families and the local community.

According to a new law on general and vocational upper secondary education adopted in September 2013, practical training has been strengthened in Greece. An optional additional (fourth) year, entitled the 'apprenticeship class', has been offered to graduates of vocational upper secondary schools. In addition, specific vocational education and training certificates have been introduced and professional rights established (European Commission/EACEA/Eurydice, 2013b: 90-92).

Policies / programmes for children and adolescents whose home language is not the language of school

Some initiatives regarding support for students whose home language is not the language of school were taken within the frame of the *Operational Programme for Education and Initial Vocational Training (2000-2006)* and the *National Strategic Reference Framework (2007-2013)*. The specific programmes were:

- 1) "Integration of repatriated and foreign students in Secondary education" (O.P. 2006-2008) and "Education of foreigners and foreign students" (NSRF 2007-2013): support of existing

Reception Classes, intensive language courses, training of teachers, advisory and psychological support to students, creation of educative materials. The programme also offered summer lessons to smooth students' transition to lower or upper secondary education. It also offered support lessons regarding the mother language of students. Teaching was financed by the NSRF.

- 2) "Integration of Roma children to school" (O.P. Education) and "Education of Roma children" (NSRF 2007-2013): a programme which focused on the specific group of Roma children, threatened by marginalisation and early school leaving. It operated in areas with a dense Roma population and offered supportive lessons and Reception Classes, in order to increase participation in school. It also offered summer courses for smooth transition to lower or higher secondary education.
- 3) "Education of Muslim Children" (NSRF 2007-2013): it offered supportive language lessons during school hours or after school hours (in secondary education only in after school hours), to Minority Schools and special teacher training.
- 4) "New School (21st Century School): Integration of vulnerable social groups to Primary Education", which supported schools on the Zones of Educational Priority (ZEP).

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