



N° EAC/17/2012

Study on the effective use of early childhood education and care in preventing early school leaving

Final Report

***Europe Direct is a service to help you find answers
to your questions about the European Union.***

**Freephone number (*):
00 800 6 7 8 9 10 11**

(*) The information given is free, as are most calls (though some operators, phone boxes or hotels may charge you).

More information on the European Union is available on the Internet (<http://europa.eu>).

Luxembourg: Publications Office of the European Union, 2014

ISBN 978-92-79-39670-0

doi: 10.2766/81384

© European Union, 2014

Reproduction is authorised provided the source is acknowledged.

© European Union, 2014

This document has been prepared for the European Commission. However, it reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

The core research team:

Mr Rimantas Dumčius, Team Leader (PPMI)
Dr Jan Peeters, Key expert (VBJK)
Dr Nóirín Hayes, Key expert (DIT)
Mr Georges Van Landeghem, Key expert (KU Leuven)
Ms Hanna Siarova, Senior Researcher (PPMI)
Ms Laura Peciukonytė, Researcher (PPMI)
Ms Ivana Cenerić, Researcher (PPMI)
Dr Hester Hulpia, Researcher (VBJK)

Contributors Of Case Studies:

Dr Birgit Hartel (Austria)
Dr Hester Hulpia, Mr Georges Van Landeghem, Dr Jan Peeters (Belgium)
Dr Fulvia Antonelli (Italy)
Dr Milda Brėdikytė (Finland)
Dr José-Ignacio Antón, Mrs María Luisa García Rodríguez (Spain)
Prof. Dr Sven Persson (Sweden)
Dr Carol Anita Aubrey (United Kingdom)
Ms Laura Peciukonytė (Lithuania)
Dr Nina Pavlin-Bernardić (Croatia)
Dr Marie Paule Behar (France)

Other Contributors:

Prof. Dr Emil Buzov (Bulgaria), Dr Panayiota Charamboulous (Cyprus), Prof. Dr Milada Rabušicová (Czech Republic), Dr Zora Syslová (Czech Republic), Prof. Dr Karen Pernille Hviid (Denmark), Ms Emilie Østergaard (Denmark), Ms Katrine Barington (Denmark), Dr Kristiina Tönnisson (Estonia), Dr Mai Beilmann (Estonia), Dr Bernhard Kalicki (Germany), Dr Katerina Vassilikou (Greece), Dr Marta Korintus (Hungary), Dr Arianna Lazzari (Italy), Dr Iveta Reinholde (Latvia), Dr Daiva Kairienė (Lithuania), Dr Aigul Alieva (Luxembourg), Ms Nadica Janeva (Macedonia), Dr Valerie Sollars (Malta), Ms Wilma Henderikse (Netherlands), Prof. Dr Thomas Moser (Norway), Ms Kari Jacobsen (Norway), Dr Dorota Szelewa (Poland), Dr Maria Da Assunção Folque (Portugal), Mr Octav Marcovici (Romania), Dr Daniel Gerbery (Slovakia), Prof. Dr Ljubica Marjanovič Umek (Slovenia), Dr Urška Fekonja Peklaj (Slovenia), Dr Elisabetta Pagnossin (Switzerland), Dr Sibel Sonmez (Turkey)

Acknowledgements:

The team responsible for this report would like to thank all the interviewees, experts and the officials in the European Commission, Member State organisations and stakeholders who contributed their time, expertise and assistance to us during the research and writing of this report.

Contractor:



Public Policy and Management Institute
Gedimino avenue 50, LT-01110 Vilnius, Lithuania
Tel. +370 5 262 0338 ; Fax. +370 5 262 5410
<http://www.ppmi.lt>
Director Mr Haroldas Brožaitis

Table of Contents

Tables	3
Figures.....	4
Boxes.....	4
Introduction	5
Chapter 1: Analytical framework and methodology	7
1.1. Relevance of research topic.....	7
1.2. Analytical framework.....	8
1.3. Key terms and concepts	12
1.3.1. Capabilities and Competences	12
1.3.2. Underachievement	13
1.3.3. Early school leaving	14
1.3.4. Quality of Early Childhood Education and Care.....	14
1.3.5. Transitions.....	16
1.3.6. Well-balanced education system	18
1.4. Research design	18
1.5. Limitations of the study	20
Chapter 2: Foundations for lifelong learning – educational journey from early childhood to successful school completion.....	22
2.1. Building successful school graduates starting in early childhood?	22
2.2. Are positive outcomes of ECEC sustained?	26
Chapter 3: Well-balanced education system as a critical element strengthening foundations for lifelong learning	30
3.1. Quality ECEC.....	30
3.1.1. Access quality	31
3.1.2. Governance quality	35
3.1.3. Structural quality.....	40
3.1.4. Process quality	49
3.2. Transitions from ECEC to primary school.....	53
3.3. Quality of primary and secondary education	58
3.3.1. System design.....	58
3.3.2. School-level practices.....	66
3.3.3. Educational support	69
3.3.4. Transitions and progressions in compulsory education	71
3.4. Continuity of education in Europe: initial exploration	73
Chapter 4: Conclusions and recommendations	77
4.1. Key findings	77
4.2. Conclusions and recommendations at the national level	78
4.2.1. Ensuring efficiency of education system.....	78
4.2.2. Making education systems equitable	81
4.2.3. Promoting cohesive education system	83
4.2.4. Advocating for representative education systems.....	84
4.3. Recommendations at European level.....	85
4.4. Areas suggested for further research	86
Bibliography.....	89

Tables

Table 1: Research questions	11
Table 2: Data collection stages.....	19
Table 3: Juxtaposition of competence profiles of early school leavers/underachievers and outcomes developed during the early years	26

Table 4: Compulsory nature of ECEC.....	32
Table 5: Level of autonomy of ECEC institutions in recruitment of ECEC practitioners	38
Table 6: Coverage of ECEC curriculum frameworks or guidelines by age group	46
Table 7: School beginner competence profile in Austria	55
Table 8: Cooperation between ISCED 0 and ISCED 1	55
Table 9: Potential outcomes of transition from ECEC to school.....	57
Table 10: Autonomy of schools in hiring teachers	59
Table 11: Autonomy of schools in adjustment of curriculum.....	59
Table 12: In-service teacher training in Europe	62
Table 13: Availability of extra-curricular activities in European schools	64
Table 14: Ability tracking and streaming in Europe	65
Table 15: Problems related to transitions.....	72
Table 16: Recommendations to enhance efficiency of the education system	80
Table 17: Recommendations to promote equity of education systems	82
Table 18: Recommendations to ensure cohesion of education systems	84
Table 19: Recommendations to promote representativeness of education systems in Europe	85

Figures

Figure 1: Analytical framework	10
Figure 2: Concept of school readiness	17
Figure 3: Enrolment in ECEC of children from 4 up to compulsory school age	31
Figure 4: Minimum educational level requirements for ECEC heads	37
Figure 5: Minimum educational level requirements for ECEC practitioners	41
Figure 6: Interplay of ECEC quality dimensions	53
Figure 7: Qualification requirements for teachers across educational levels in Europe	75

Boxes

Box 1: Importance of ECEC for children's non-cognitive development	27
Box 2: Relationship between underachievement and ECEC attendance in Flanders....	28
Box 3: Regional differences in enrolment of children in ECEC in European countries..	32
Box 4: Implications of underinvestment in ECEC in some Member States.....	34
Box 5: Conditions for effective management of ECEC	38
Box 6: Examples of the use of ECEC monitoring results for quality ECEC improvement	39
Box 7: The importance of competent ECEC practitioners in individualising the curriculum	46
Box 8: ECEC practitioner's role in play.....	48
Box 9: "Schoolification" as a barrier to the use of play as a learning method	48
Box 10: The role of parents in ECEC governance	50
Box 11: Examples of child-focused parental engagement in European countries	51
Box 12: Initiatives to involve disadvantaged parents into ECEC	51
Box 13: Transition practices in Europe: examples	56
Box 14: Examples of early warning systems in European countries	60
Box 15: Teacher education in Finland	62
Box 16: Teacher salaries in Europe	63
Box 17: Guidance in counselling practice in Spain.....	66
Box 18: Additional measures to help underachieving pupils in Europe: examples.....	70
Box 19: Examples of additional support to migrant children	71

Introduction

This Final Report is submitted for the implementation of specific contract No EAC/2012/0615 "Study on the effective use of early childhood education and care (ECEC) in preventing early school leaving (ESL)". The study is carried out by the Public Policy and Management Institute.

The aim of the study is to get a better understanding of the evidence base behind the relationship between good-quality early childhood education and care and early school leaving rates and to support the work of the European Commission and Member States, within the Strategic framework Education and Training 2020.

Specific objectives of the study include:

- development of a state of the art conceptual framework for analysis, reviewing existing research across Europe and beyond (all previous research that is available in European languages – most importantly longitudinal);
- collecting new data and analysing relevant policies and their effects across Europe;
- providing recommendations for actions that could be taken at European and national level to improve the effectiveness of ECEC services, to promote ECEC and to contribute to the development of a more comprehensive approach to tackling underachievement and early school leaving.

The report presents the final results of the assignment and the methodology that was used to complete it. The report consists of three chapters.

The *first* chapter briefly introduces the relevance of the research topic and describes the conceptual framework of the study. It also presents the main concepts and their definitions that framed the research process and analysis. The development and justification of the use of the definitions is presented in the full version of the literature review (see Annex 1). The research team has also conducted an overview of European policy and legal context within the field of ECEC and general education, which is presented in Annex 2. Finally, the first chapter briefly presents the research design and methodology of the study that was used to achieve the objectives stated above.

The *second* chapter discusses the potential link between children's early development and success at the end of compulsory schooling. The chapter also presents evidence on the impact of quality ECEC in strengthening foundations for learning in children's development. The findings are based on the analysis of previous research evidence (including the one from longitudinal studies) and supported by case study data from 10 European countries. Full case study reports, which provide evidence on the status quo of ECEC systems in 10 countries and its potential links with children's success in later schooling, are attached separately as Annex 3.

The *third* chapter argues the importance of a well-balanced and competent education system for the smooth development of children and strengthening foundations for lifelong learning. It focuses on three important education stages of children's learning process: early childhood, transitions and compulsory schooling and discusses the importance of balance and continuity between them to ensure children's success.

The study is completed with a set of conclusions and recommendations for actions that could be taken at European and national level to improve the effectiveness of ECEC services, to promote ECEC and to contribute to the development of a more comprehensive approach to tackling underachievement and early school leaving.

The Report has the following Annexes:

- Annex 1. Full literature review;
- Annex 2. European policy context in the area of early childhood and general education;
- Annex 3. Case study reports;
- Annex 4. Group size and practitioner to child ratio in ECEC across Europe;
- Annex 5. Monitoring, length of compulsory education and educational support during compulsory education in Europe.

Chapter 1: Analytical framework and methodology

Chapter 1 introduces the context for the current study, discusses the main concepts important for understanding the relationship between early childhood education and care and pupils' participation and performance at later stages of education and introduces the analytical framework on which the study is based.

1.1. Relevance of research topic

Early school leaving (ESL) remains one of the main challenges faced by European society. One out of every seven young Europeans leaves the education system without having the necessary skills or qualifications to make a successful transition to the labour market and for active participation in society. According to Eurostat, 12.0% or more than 5 million of all 18-24 year olds in the EU Member States had not completed upper secondary education and were no longer in education and training in 2013. Research also shows that early school leaving generates major individual, economic and social costs (including reduced tax revenues and increased public spending on healthcare, criminal justice and social benefits) and these are linked to unemployment, social exclusion, and poverty. As a result, ESL is an obstacle to economic growth and employment, which hampers productivity and competitiveness, and fuels poverty and social exclusion. Besides the serious social and economic consequences for societies, early school leaving increases the risk of an immense waste of the individual potential of young people. Therefore, the need to address early school leaving is widely acknowledged in the European agenda.

At the moment reducing early school leaving is one of the five headline targets of the Europe 2020 Strategy and one of the benchmarks of the Strategic Framework for cooperation in education and training (Education and Training 2020). It expresses the commitment of the Member States to reduce the share of early school leavers in Europe to less than 10% by the year 2020. Furthermore, one of the benchmarks of the Education and Training 2020 Work Programme is that by 2020 the share of low achieving 15-year-olds in reading, mathematics and science should be less than 15%. Although in some Member States progress is satisfactory towards this headline target and benchmark, many countries are still lagging behind. The Council Recommendation on policies to reduce early school leaving, adopted in June 2011 (Council of the European Union, 2011) highlights the fact that effective policies against ESL need to be evidence-based and comprehensive, addressed at all levels of education and they should combine prevention, intervention and compensation measures. The document names high-quality early childhood education and care (ECEC) among the effective measures in preventing early school leaving.

In general, the importance of ECEC services is widely acknowledged in European policy discourse. There is a consensus that investing in the earliest phase of education brings the greatest economic and social returns over the lifecycle, particularly in the case of disadvantaged children and helps to avoid later, more expensive and often less effective remedial actions. Moreover, high-quality early childhood education and care services positively contribute to educational achievement, participation and reduce the risk of early school leaving. However, clear evidence about the causal relationship between these variables in different contexts is still lacking. Although a number of longitudinal studies have explored it more closely, this assumption is mostly derived from research results of other ECEC, ESL and low attainment aspects that indirectly indicate the possibility of the existence of such relationship. For example, a large body of evidence shows that children who participated in high-quality ECEC were better prepared for school and tended to have higher achievement at school in math, reading

and had better memory (Eurydice, 2009; Ivić & Pešikan, 2009, Havnes & Mogstad, 2009); meanwhile many studies describe low achievers and early school leavers as young people who have lower cognitive skills. These insights allow logically assuming that ECEC by contributing to the development of children's competences may reduce the risks of low-achievement and early drop-out (Lyche, 2010). Therefore, there is a need for further more detailed exploration and analysis on how equitable and high-quality early child education and care can influence the performance of children at later stages at school and possibly contribute to the prevention of early school drop-outs.

The aim of this study is to bring all the available pieces of the ECEC-ESL puzzle together into this report and identify the missing details that need to be explored further.

1.2. Analytical framework

Even though the potential of high-quality ECEC in positively influencing pupils' performance and participation at school at a later stage is widely discussed and acknowledged, it is challenging to establish direct links between these two concepts, given the potential influence of numerous other factors that might also affect performance and participation at school.

The core element of our approach is the focus on the developmental aspect of children's learning process, which is reflected in our analytical framework (see Figure 1 below). Children's development is a long-term continuous process starting from home and the first transition to the ECEC setting following transitions and participation in compulsory school and subsequent successful graduation from it.

Neuroscience and brain research have shown that early childhood is the most intensive period of brain development during the human lifespan. The foundations for learning laid during early childhood have potential to enhance further achievements and learning of children during compulsory schooling. However, this process is shaped and influenced by three groups of factors (see Figure 1).

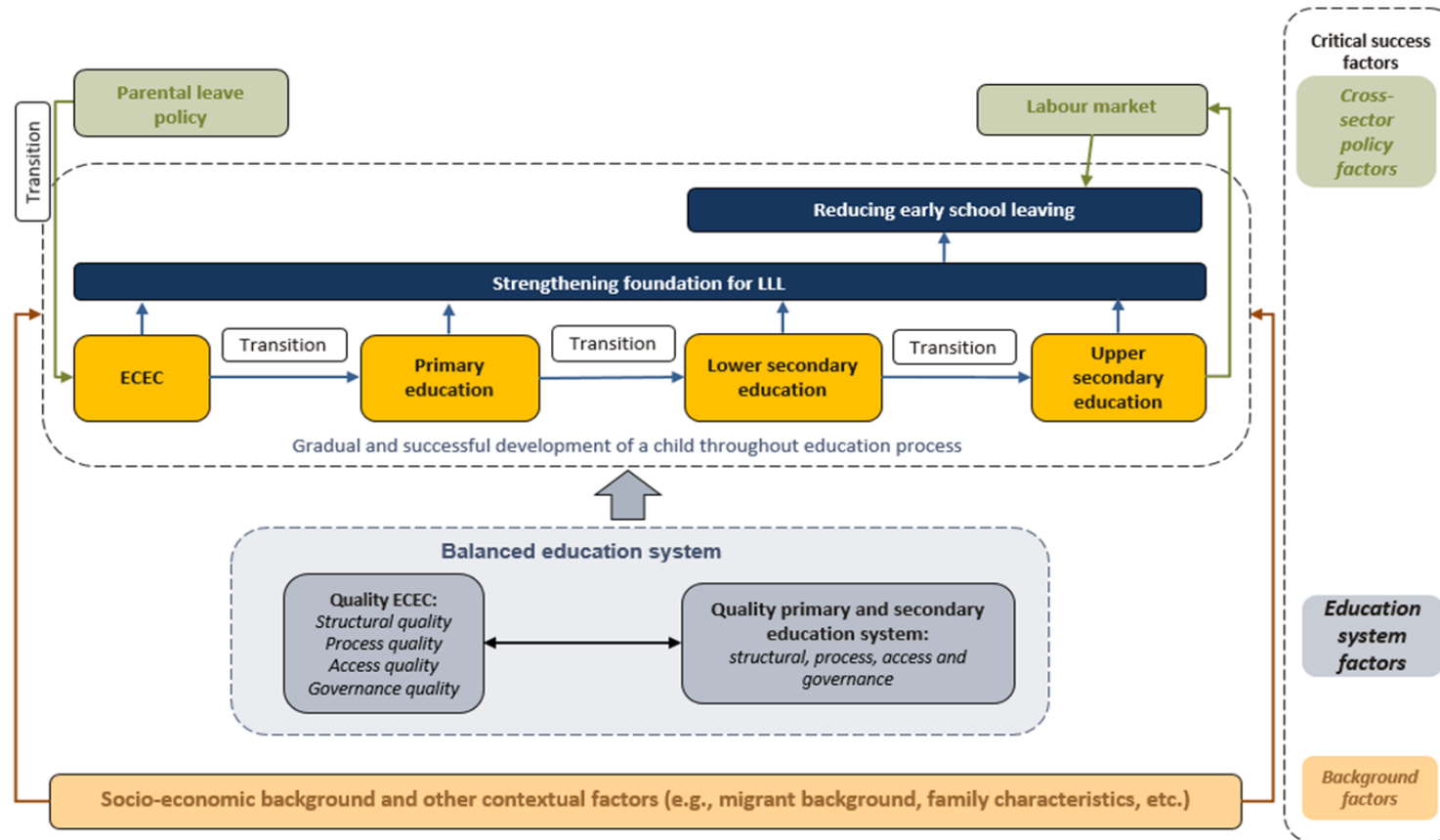
Background factors shape the peculiarities of children's needs when they enter and participate in the education process. Rich research evidence confirms that children with **low socio-economic status** perform worse than their more socially advantaged peers (OECD, 2013a). Most countries recognise that families living in poverty are significantly less likely to participate in early childhood provision even though their children might benefit greatly (Levin, 2003). Children who must combine work with study are more likely to repeat and leave school early (GHK Consulting Ltd, 2011; OECD, 2012b; UNICEF & UNESCO, 2012) often even without being able to read a basic text (UNICEF & UNESCO, 2012). **Foreign or minority background** can also hinder children's success due to additional linguistic needs (OECD, 2010; Egelund, 2011, Haahr, 2005; GHK Consulting Ltd, 2011; Bauchmüller, Gørtz, & Würtz Rasmussen, 2011; DCSF, 2007); children from one-parent families and also families with a history of violence are likely to have lower educational performance and are likely to leave school earlier (OECD, 2010; Prusik, 2010; Matković, 2010; Eivers et al. 2000), which emphasises the important influence of **family characteristics and environment** on children's learning process. National and international research confirms that **physical or mental disability** or long illness increases the likelihood of early school leaving (Ferić, et al. 2010; SCB, 2007; Domagała-Kręcioch, 2008, OECD, 2012a). Though it is important to acknowledge the role of background factors in explaining differences in children's performance, it is even more crucial to understand that these factors cannot be decisive in defining children's success or failure. They rather reflect the diversity of the child population and starting opportunities. It is the

task of the education system to neutralise these inequalities and enhance every child's potential regardless of its background, which makes education system factors crucial in the learning process of children.

Therefore, education system factors play a crucial role in children's learning process and are expected to be the "fertile soil" where children's competence and capabilities grow smoothly. Learning and education start right from birth and continue into compulsory schooling. The role of the system is to ensure the quality of all levels (ECEC, primary and secondary) and transitions between them in order to provide solid and responsive ground for every child to learn and succeed. In this study we also aim to answer what are the crucial quality elements of an education system (starting from ECEC up to upper secondary school) that enable it to provide such ground for children's development and ensure their success.

The third group of factors refer to cross-sector policy factors which may indirectly influence children's development, by shaping the decision of parents or children to participate in the education process. For example, **parental leave policies** may influence the decision about enrolling a child in ECEC and parents ability to create a home learning environment, considering the time available to be with children. **Labour market** may also have significant influence on the decision to enrol children in ECEC. Where the labour market and employment are strong, and wages are good, it is much easier for families to be able to finance ECEC (Levin, 2003). On the other side of the education process, the labour market can serve as a pull factor for pupils to leave school early. For example, availability of jobs for low-skilled persons might be a disincentive in some countries to stay longer in school (GHK Consulting Ltd, 2011)). Although we focus primarily on factors that influence children's development directly (most importantly education system factors) in this study, we recognise the potential role of cross-sector policy factors as additional elements in explaining children's participation in the education process.

Figure 1: Analytical framework



Source: PPMI.

The analytical framework presents the entire hypothetical causality chain of a child's development starting from participation in early childhood education to the transition to subsequent levels of education and final graduation. The analytical framework also takes into account the effects of education system factors, socio-economic background and family characteristics on children's success in the learning process, which proved to be significant and important according to the existing research evidence (see full literature review in Annex 1). Based on the analytical framework presented above we have detailed the research questions we aim to answer in this study. The research questions cover different factors influencing children's development and aim to identify the role of early childhood education and care in it, and more specifically – in preventing early school leaving (see Table 1).

Table 1: Research questions

Links	Questions
Links between overall design of ECEC system in the country and factors that define the quality of ECEC	<ul style="list-style-type: none"> What constitutes equitable and high-quality early childhood education provision? What types of ECEC service are practiced in Member States? What policies proved to be more favourable for children's development?
Outcomes for children of ECEC	<ul style="list-style-type: none"> What is the role of ECEC in strengthening the foundations for learning for children participating in it? What is the impact of ECEC on early child development and on transition to and success in primary and secondary school? Is the impact of ECEC sustained?
Links between transition policies and success at the next educational level (after transition)	<ul style="list-style-type: none"> What is the role of transition in children's successful learning? What transition mechanisms between ECEC and primary education are used in European countries? What policies are most favourable for children? What is the role of ECEC and schools in facilitating children's transitions? How are transitions between grades organised in European countries? What factors determine difficulties for children in making these transitions?
Links between education-related factors (at ISCED 1-3) and performance and participation of pupils	<ul style="list-style-type: none"> What impact do features of the education system have on pupils' performance and participation in compulsory schooling? What types of educational support policies are practiced in European countries?
Relations between children's competences profile at early age and competence profile at primary and secondary educational level	<ul style="list-style-type: none"> What types of competences do underachieving pupils/early school leavers possess/lack in different European countries? Are there any links between the developmental outcomes for children that are developed by typical ECEC institutions and types of competences that underachieving pupils and early school leavers typically lack? Does quality of ECEC and smooth education process have an impact on the level of children's achievement and participation in school? What is the interplay between ECEC and further education in terms of strengthening children's foundations for learning?
Influence of other policy factors	<ul style="list-style-type: none"> What are the other factors (if any) that influence quality provision of ECEC and positive children's outcomes from ECEC? What are the other factors that influence achievement and early school leaving rates in different European countries?

1.3. Key terms and concepts

1.3.1. Capabilities and Competences

Two important concepts are used inter-dependently when discussing children's development:

Competence is understood and defined as measurable knowledge, skill, ability and/or other characteristic (e.g. attitude, behaviour, physical ability), which a child may possess or acquire during the education process and which is necessary for their performance at later stages of education and life. However, in early child development it is difficult to identify measurable competences; therefore, when talking about early outcomes of children, abilities, developmental outcomes and learning dispositions that further develop into pupils' competences are referred to.

Capabilities are seen as an umbrella concept that link abilities/competences of a child and inputs (education system elements). The capability approach (Saito, 2003) looks at whether learners are able to convert their abilities/competences into capabilities and whether – at the same time – education systems provide opportunities for this process (i.e., if learners can use their abilities at their own choice and if education systems provide this choice).

The basic patterns of child development in the light of genetic-environmental correlation (i.e. impact of environment on development) are a rather recent area of study. Researchers are constantly discovering new information on how children grow, develop, and learn about their world. Although each child is unique, there are basic patterns, or principles, of growth and development that are predictable, and orderly.

Rather than focusing on equipping our children with specific knowledge, Birghous (2000) argues that we need to equip children with the skills they need to reflect rationally on alternative choices about how to live, so as to enable them to make better rather than worse choices now and in the future. Nussbaum (2000) is also clear that time spent in compulsory education (schooling) should help children develop capabilities which are important to make genuine and valued choices. According to Sen's concept of capability as applied to education¹ children are better off when they have more feasible options to choose from and the freedom to choose which options to exercise in the present and/or when they are engaged in building future capabilities (Saito, 2003). Competences such as concentration or accuracy, attitudes such as neatness, punctuality, engagement, behaviours such as attentive listening or polite communication do not exist in a void. They surface only when a person is engaged in activities which are congenial to them and which they perceive as worthwhile.

The capability approach (Nussbaum, 2011) warns us that we cannot just evaluate abilities/competences and inputs (education system elements); but we also must look at whether learners are able to use these abilities and competences at their own choice (i.e. education system provides opportunities for this). We find that this approach can be beneficial for the discussion of development and impact of ECEC because it grasps the interplay between the child and the context in which it grows up. Capabilities are not just abilities/competences residing inside of a person, but also a freedom of choice or opportunities to exercise and develop these abilities/competences created by a combination of education, social and economic factors.

¹ ...by, for example: Saito, M. (2003). Amartya Sen's capability approach to education: A critical exploration. *Journal of Philosophy of Education*, 37 (1), 17-33.

1.3.2. Underachievement

For the purposes of the present study the term “**underachievement**” is used in three different ways:

- With reference to particular educational transitions by individuals: when his/her low educational achievement makes a particular transition difficult or impossible, the pupil in question is “underachieving”.
- With regard to individual educational careers: when insufficient educational achievement significantly hinders the course of a pupil’s career in education, the pupil is said to “underachieve”.
- With regard to groups in education: when there is a difference in average educational achievement between two sub-groups of a meaningful partition of a population in education, the sub-group with the lower average achievement can be described as “underachieving” relative to the other sub-group in question.

The notion of “underachievement” in education is burdened with a history of confusion, multiple definitions and conceptual difficulties (Plewis, 1991; Reis & McCoach, 2000; Gorard & Smith, 2004, Ziegler & Stoeger, 2012). Plewis (1991) gave three different meanings of educational “underachievement” which were current over two decades ago. Firstly, it referred to the finding that “teachers, when asked about individual pupils as to whether their achievement is in line with their ability or whether they are doing as well as they are capable of, are able to discriminate between pupils along these dimensions.” Secondly, “many psychologists” defined “educational underachievement for individuals in terms of a discrepancy between their IQ and their score on an educational test”. Thirdly, among educational sociologists “social and demographic groups with mean achievement or attainment test scores below the mean for a selected reference group” were said to “underachieve”. He concluded that the “conceptual and operational confusion surrounding underachievement can only be a hindrance to good educational research. Eliminating the word should improve the quality of educational debates on achievement and studying teachers’ perceptions of their pupils in this area could give us a better understanding of educational processes”. The term “underachievement” has not quite disappeared from educationalists’ vocabulary. In view of the difficulties surrounding it, a specific description suited to the present study is put forward here.

In contrast, differential achievement between well-defined sub-populations — as in the sociologists’ view of “underachievement” (e.g. Troyna, 1991, Carrington & McPhee, 2008) — seems of interest in a review of the effects of quality ECEC. *When there is a difference in average educational achievement between two sub-groups of a meaningful partition of a population in education, the sub-group with the lower average achievement can be described as “underachieving” relative to the other sub-group in question.*

Individual pupils’ underachievement may interfere with particular transitions in education—for example: entering primary education, transferring from primary to secondary education, passing from one grade to the next. This may affect the general course of their career, eventual attainment, and the risk of leaving school early. As such, it is particularly relevant to the present study and underachievement that makes a particular transition difficult or impossible or significantly hinders the course of a pupil’s career in education will also be included in the specific notion of “underachievement” adopted here.

1.3.3. Early school leaving

For the purposes of the current study **early school leavers** are those who, upon leaving initial education for the first time, have only achieved pre-primary, primary, lower secondary or a short upper secondary education of less than 2 years (ISCED 0, 1, 2 or 3c short).

Although there is no universally accepted definition of “early school leaving”, there is broad agreement about success in “upper secondary education” as the preferred minimum attainment level. This is true for the European “early leavers from education and training” indicator and also for comparable OECD statistics (OECD, 2012b). In the US research, successful completion of “high school” is the corresponding target (e.g.: Pharris-Ciurej, Hirschman, & Willhoft, 2012, Plank, DeLuca, & Estacion, 2008, Rumberger & Lamb, 2003). In terms of UNESCO’s International Standard Classification of Education (ISCED), early school leavers are those who have only achieved pre-primary, primary, lower secondary or a short upper secondary education of less than 2 years (ISCED 0, 1, 2 or 3c short). All these definitions of early school leavers are appropriate when the effectiveness of the initial education system is at stake. They are quite different from the EU “early leavers from education and training” indicator, which is defined as “the proportion of the population aged 18–24 with only lower secondary education or less and no longer in education or training” (Council of the European Union, 2011). The latter confounds school leaving after a continuous career in education, school leaving after re-entry, and qualification (at a young age) in adult education and it mixes in a labour market component.

With regard to defining “early school leavers” in the context of this study, it is worthwhile to distinguish between the different elements involved in the EU definition of “early leavers from education and training”. Which one of these elements is most likely to be influenced by the quality of ECEC? For which of these elements is it most feasible to find support from research results for a link with the quality of ECEC? As there is little scope of finding material that directly bridges the time gap between ECEC and ESL, this study will need to rely on linking together evidence about the effects of ECEC in the further educational career. It seems most practical and feasible, therefore, to focus mainly on the event which is the closest in time, namely the first time the pupil leaves initial education. Thus, *for the purposes of the current study early school leavers are those who, upon leaving initial education for the first time, have only achieved pre-primary, primary, lower secondary or a short upper secondary education of less than 2 years (ISCED 0, 1, 2 or 3c short).*

1.3.4. Quality of Early Childhood Education and Care

For the purposes of the current study **Early Childhood Education and Care (ECEC)** is defined as any regulated arrangement that provides education and care for children from birth to compulsory primary school age – regardless of the setting, funding, opening hours or programme content – and includes centre and family day care; privately and publicly funded provision; preschool and pre-primary provision.

High-quality ECEC is defined as a multi-dimensional and generic construct, which unfolds (and has to be proactively developed) in four components: governance quality, structural quality, process quality and access quality; and leads to positive experiences and outcomes for children.

Definitions that understand ECEC in its broadest sense include **all processes and mechanisms** that sustain and support development of children from birth till the age of the start of compulsory schooling. For instance, in the OECD's Starting Strong definitions (OECD, 2001, 2006a, 2012d) ECEC encompasses **all arrangements** providing education and care for under compulsory school age, regardless of setting, funding, opening hours, or programme content, and **policy** measures aimed at supporting optimal care and education during this (e.g. parental leave regulations). The UNESCO (2010) definition of ECEC refers to all organised developmental services for young children up to compulsory school age. Those services can include childcare centres, other "care" services (e.g. day care), programmes with the primary purpose of "early childhood education" (e.g. kindergartens, nursery schools) and some elements of family resource programmes. Similarly, Eurydice (2014) describes ECEC as any regulated arrangement that provides education and care for children from birth to compulsory primary school age – regardless of the setting, funding, opening hours or programme content – and includes centre and family day care; privately and publicly funded provision; preschool and pre-primary provision. This understanding is also reflected in the current study.

When exploring positive impacts of ECEC, researchers unanimously confirm that it is **conditional on the quality of ECEC** (European Commission, 2011; Eurydice, 2009a). As Datta Gupta and Simonsen (2010) and Eurydice (2009) observed, only ECEC services of good quality benefit child development, especially children most in need.

The debate on quality ECEC started in the 1980s when the child development perspective on quality was developed. At that time high quality was defined as one which promotes optimal child outcomes in all domains of development (Huntsman, 2008). The outcome of ECEC should be children's well-being and development in the physical, cognitive and socio-emotional areas. After finishing the ECEC stage, children should be (1) healthy and well-nourished, (2) securely attached to caregivers and able to interact positively with extended family members, peers, and teachers, (3) able to communicate in their native language or in the host country language with both peers and adults, and (4) ready to learn throughout primary school (Naudeau et al. 2011). Two approaches – top-down and bottom-up were developed in analysing quality (Katz, 1993). Top-down approach referred to **structural quality**, which could be measured by selected characteristics of the programme, the setting, the equipment, and other features, as seen by the adults in charge of the programme; while the bottom-up perspective attempts to determine how the programme is actually experienced by the participating children (**process quality**) (Ishimine, Tayler, & Bennet, 2010). Later on other perspectives on quality emerged in the scholarly debate and quality ECEC started to be understood as existing "in the eyes of the beholder", i.e. viewed from the perspectives of different stakeholders (Calvert, 2012; Layzer & Goodson 2006; da Silva & Wise 2006). ECEC quality started to be understood as a multi-dimensional and multi-level concept. Finally, the CoRe study (2011) commissioned by the European Union related the concept of quality to the economic, social, and educational functions of ECEC and stated that quality must unfold at all four levels of a competent ECEC system (i.e. governance level, interagency level, institutional level and individual level).

Literature review conducted for this study illustrates that high-quality ECEC has been associated with some aspects of governance quality, structural quality, process quality and access quality, where all these aspects are interrelated (see Annex 1). These aspects are interdependent and overlapping; therefore, as concluded by (OECD, 2012d) they should all be treated as necessary elements for successful ECEC policy and will be used as quality aspects analysed in this study:

- Structural quality conditions can be defined as “inputs to process characteristics which create the framework for the processes that children experience” (Taguma, Litjens, & Makowiecki, 2012);
- Process quality consists of what children actually experience in their programmes – that which happens within a setting. These experiences are thought to have an influence on children’s well-being and development (Litjens & Taguma, 2010) (e.g. Experiences and Interactions of different participants);
- Access quality can be summarised as respect for equity, inclusion, diversity, affordability, usefulness, comprehensibility, and availability of ECEC services (Lazzari & Vandenbroeck, 2012));
- Governance quality refers to responsibility for decision-making and delivery of services across government departments, levels of government, and public and private actors and systems of evaluation, monitoring and quality improvement.²

1.3.5. Transitions

Transitions take various forms in learning and education. Learning processes and learning outcomes themselves are expressions of change and transformation. Similarly, transitions can be considered as natural phases of human development. During young people’s and adults’ educational path, they are confronted with more or less radical transitions which involve moving from one environment to another (Tynjälä et al, 2012): transitions from home to pre-primary education, transitions between grades, between schools, from ordinary to special education, etc. The challenge for education systems is how to organise the links between different educational levels, schools and grades so that they support transitions in the best possible way.

This study primarily explores effective **transition between ECEC and primary school** and defines it as a relationship between ECEC and compulsory schooling in three dimensions: readiness for school unfolded in four essential components (ready ECEC, ready schools, ready parents and ready communities mean ready children); strong and equal partnership between all stakeholders involved – ECEC educators, school teachers, children, parents and communities – and continuity of children’s development between ECEC and primary school.

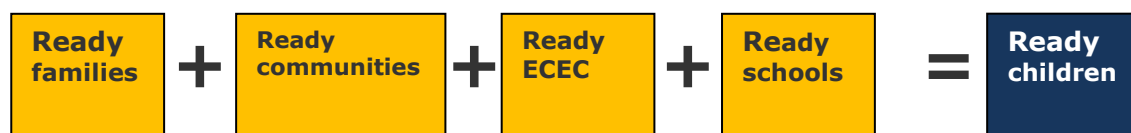
Positive experiences of transition to school and between educational levels can be a critical factor for children’s future success and development, while negative experiences can have lasting difficulties leading to problematic behaviour and poorer educational performance (Niesel & Griebel, 2005; Woodhead & Moss, 2007; Moss, 2013). Transition from primary to secondary school has been identified in different education systems as a significant and potentially stressful event for pupils. Sutherland, Ching Yee, & McNess (2010) point out that difficulties with transitions can be even more significant for particular groups of pupils. Important characteristics such as **gender, ethnic heritage, socio-economic status (SES)** and **special educational needs (SEN)** may aggravate pupil’s difficulties in secondary schools despite average (or even above average) performance in primary school if there is no adequate response from the system. Also the importance **of family and school**

² Governance quality is a collective concept adapted based on literature review (in particular, OECD (2012) and CoRe (2011)).

support has been recognised by several researchers. **Education systems** and the organisation of transitions play a crucial role in this process. Sutherland et al. (2010) also highlight that the complexity of transitions stems from parental choice policies and competition, which can hinder transitions for some groups of pupils. Clear and uniform administrative procedures are also important for successful transition between educational levels (Evangelou, Silva, Kyriacauo, Wild, & Glenny, 2009). Therefore, poor attention to the transition process can enhance barriers for children, especially those from disadvantaged backgrounds, to successfully integrate into the next educational level.

Transition from ECEC to school is one of the first transitions in a child's life but it is not a one-time event. Rather there is a "process of continuity" (Peters, 2010) and change as children move through primary and secondary school. This change refers to changes in relationships, teaching style, environment, space, time and contexts for learning and therefore, the process of transition occurs over time, "beginning well before children start school and extending to the point where children and families feel a sense of belonging at school and when educators recognise this sense of belonging" (Hayes, 2011). Early understandings of transition to school were framed around the concept of children's "**school readiness**". In this case the role of early childhood education and care is understood as the preparation of children for schools, so that they develop the necessary skills and abilities to be able to cope with the school programme (Neuman, 2000). As a result, in an effort to prepare children for academic programmes of primary schools, preschool systems often tend to adopt school-like characteristics, which prevents early childhood education systems from focusing on the psychology and natural learning strategies of children (OECD, 2006). More recent thinking about the transition to school recognises that "school readiness does not reside solely in the child, but reflects the environments in which children find themselves" (Nolan et al., 2009; UNICEF, 2012a, 2012b). This perspective has contributed to the re-conceptualisation of the nature of "school readiness" and of how best to promote positive transitions to school. School readiness is now seen as a combination of four essential components (see Figure 2).

Figure 2: Concept of school readiness



Source: Nolan, A., Hamm, C., McCartin, J., Hunt, Scott, C., and Barty, K., *Outcomes and Indicators of a Positive Start to School: Report prepared by Victoria University for the Department of Education and Early Childhood Development*. Melbourne: Victoria University, 2009.

The literature emphasises that four processes are important for having all the elements from the above equation ready for smooth transition:

- 1) **structural continuity** (Neuman, 2000; OECD, 2006; Dockett, Perry, & Kearney, 2010);
- 2) **pedagogical and curriculum continuity** (Dockett, Perry, & Kearney, 2010, OECD, 2012; Bennett, 2012; Woodhead & Moss, 2007);
- 3) **professional continuity** (Neuman, 2000; Fabian & Dunlop, 2006);
- 4) **continuity with the home and community** (Neuman, 2000; Broström, 2005; Fabian & Dunlop, 2006).

The discourse summarised by Peter Moss (2010) combines these approaches and **sees transition as a relationship between ECEC and compulsory schooling, which unfolds in three dimensions: readiness for school comprised of four components (as discussed above), solid partnership between all stakeholders involved and common vision of ECEC and primary school on children's development as continuity**. For this study the transition processes are also defined in the form of these three dimensions, which will allow exploring all the possible factors and barriers attributed to these dimensions across the whole school system.

1.3.6. Well-balanced education system

An education system is **well balanced**³ when all its parts fit well together and function in synergy. Balance can be assessed from different angles such as: efficiency, equity, cohesion and representativeness.

Good-quality components are necessary but not sufficient to build an adequate whole, whether we are talking about a machine, a factory or an educational system. The parts need to fit together, or the system will fail or at least work inefficiently. Similarly, the different components of an educational system need to be adequately balanced. How can one judge whether a particular educational system is well balanced? The extensive body of material (literature review, policy mapping, and case studies) collected in this project contains the beginnings of an answer to this question. A well-balanced system can be structured in four dimensions:

- **Efficiency**, i.e. every part of the system reinforces the results of other parts. In other words, investment in the quality of all levels of education is important, enabling every subsequent level of education to strengthen the positive outcomes on children's learning acquired at the previous levels.
- **Equity**, i.e. that the education system should ensure opportunities for every child regardless of its background to realise its potential, closing the gap created by any particular disadvantage.
- **Cohesion**, i.e. co-responsibility of stakeholders across the education system. In other words, it is important that stakeholders at each particular level of education, starting from ECEC to transitions to the labour market, share the same vision on continuity of the learning process and children's development as a whole rather than fragmented into stages.
- **Representativeness**, i.e. diversity of pupils is reflected by diversity of staff and policymakers, which is crucial for a tailored response to the needs of each particular pupil.

1.4. Research design

In order to achieve the above stated objectives and complete the task of finding missing elements in the causal chain that follows children's development trajectory from ECEC to the end of compulsory education, we underwent several data collection stages (see Table 2).

³ The concept of well-balanced system unfolded into four dimensions was developed by the research team as a result of the analysis of all relevant literature and data collected during case studies and policy mapping.

Table 2: Data collection stages

Stage	Rationale	Description and methods
Research review stage	<p>During this stage the core team with the help of national researchers reviewed literature available on the topic of the research in almost all European languages. This was an important tool to inform the development of the conceptual framework and establish the main definitions.</p> <p>Research review was an important methodological step to gain and synthesise already existing evidence on the links between quality ECEC and children's development and other contextual and education factors that influence children's learning progress.</p> <p>One of the main rationales for research review was also to identify major gaps in existing research and to provide directions for future studies.</p>	<p>Literature and policy documents available in the English language were reviewed and synthesised by the core research team.</p> <p>In addition, research evidence available in European national languages was incorporated into the analysis. To accomplish this the core team developed a detailed questionnaire covering all the research questions (see Table 1), which was sent out to national researchers collaborating with the core team. National researchers were asked to review literature on the relevant topics available in their languages and summarise the most important findings in English. The questionnaire was piloted in one country in order to fine tune the questions and messages. Overall, the questionnaire was sent to 36 European countries (28 EU MS, 4 EEA MS and 4 candidate countries) and completed in all but Liechtenstein and Iceland.</p> <p>The timeline of this stage was April–June 2013.</p>
Policy mapping stage	<p>Having informed the conceptual framework and identified the major elements of quality ECEC and further education, the next step was to update the existing policy information on the status quo of these elements in Europe.</p> <p>This stage was important in order to assess the state of ECEC and further education systems in Europe according to the dimensions identified as important in the literature review. Second, mapping of the situation in Europe allowed objective selection of the most interesting countries for case-study analysis, taking into consideration the principles of diversity and representativeness.</p>	<p>To accomplish this task, the core team elaborated the second questionnaire that covered all the key elements of ECEC and compulsory education that were identified as important in the literature review. The questionnaire was tested in three different countries.</p> <p>The questionnaire was pre-filled by the members of the core team based on the existing international comparative materials (UNICEF, OECD, and Eurydice). Afterwards, the questionnaires were sent to national researchers in 36 European countries covered by the study to be verified and completed. This was done in all countries except Liechtenstein and Iceland. The synthesis of the policy mapping results is presented in Chapter 3 of this report.</p> <p>Policy mapping was completed during August–September 2013.</p>
Case study stage	<p>Based on the policy mapping results, the core team identified 10 countries for in-depth (case study) analysis. The main goals of case studies were: 1) to collect evidence on the implementation gaps/challenges of the policies and measures identified during the policy mapping; 2) to complement evidence collected during the research stage on the important elements and factors influencing children's development; 3) to attempt to build a hypothetical chain of factors influencing children's development in a particular country context; 4) to raise awareness on the importance of ECEC by bringing together stakeholders representing different educational levels and roles.</p>	<p>Based on the policy mapping results, 10 countries were selected for case study analysis: Austria, Belgium, Croatia, Finland, France, Italy, Lithuania, Spain, Sweden, and the UK. The main selection criteria were representativeness of European diversity in terms of ECEC systems and performance and participation rates of pupils at the end of compulsory schooling. The data collection and analysis was completed by national researchers based on the detailed guidelines developed by the core team. The case study guidelines were piloted in one country and the model case-study report was sent to national researchers as an example. All 10 case study reports are provided in Annex 3 to this report.</p> <p>The case studies are all based on desk research and around 6 semi-structured interviews with the relevant stakeholders representing ECEC, primary and secondary education, NGO and policy level and 2 focus group discussions.</p> <p>The case studies were implemented during December 2013–February 2014. The findings of case study reports are used throughout the study.</p>

The analysis of the data and information is based on recognised research methods. The study in its nature is largely explorative and qualitative; however the research team used quantitative evidence wherever possible. To ensure robust conclusions data analysis relied on the logic of triangulation of data sources. Our answer to each research question relies on several different sources of information, including research evidence from multiple previous studies and semi-structured interviews, focus groups with the key informants as well as observations conducted by the research team.

The vast ambition of the study was to cover a very long causality chain spanning from education and care in early years to the end of compulsory schooling. The multitude and large diversity of factors at play in different education systems and contexts across Europe, as well as time and financial limitations faced by the research team shaped the largely explorative design of the study, rather than original data collection and analysis. Therefore, our research was essentially a meta-analysis of literature and documents available in almost all European languages, which was complemented with case studies helping to illustrate and contextualise our findings as well as develop policy-relevant recommendations. As a result, we have produced a very comprehensive trawl of research and experience to answer the research questions and we have identified gaps in research and directions on how these gaps could be filled-in in future studies.

1.5. Limitations of the study

The main limitations of the current study stem from the lack of comparable data and available information on education systems and quality indicators necessary to feed our argument.

The research team encountered a severe lack of comparable statistics on various quality characteristics of ECEC across Europe, which limited the analysis. The countries have different ECEC facilities with different quality measures and requirements. The lack of comparable statistics is also an obstacle to constructing an internationally comparable set of minimum quality standards for ECEC. Due to this, not all quality elements, which were identified as important for children's development and quality ECEC could be compared. Nevertheless, the comparative analysis allowed the main weaknesses of ECEC systems across Europe which might limit ECEC influence on child's cognitive and non-cognitive development to be identified.

In addition, comparable data on education system characteristics was not always available to the same extent in all Member States. In several countries information on some of the characteristics was missing, while in Iceland and Liechtenstein most of the relevant information was out of reach of the research team. These countries were included in the overall comparative analysis only where data was available and accessible.

Another limitation and simultaneous finding of the study was that not all elements of our causal chain were equally well researched. For instance, many previous studies analysed the link between participation or the length of attendance of ECEC and the outcomes for children at later stages of education, but rather few actually tried to analyse the importance of different quality elements of ECEC on the development of children and success in later schooling. Analysis of national research evidence suggests that the focus on structural quality elements prevails in European research. The data on structural quality elements is usually part of general education statistics and thus readily available for research, while the data on many other quality characteristics is relatively more difficult to access, which made it challenging to make

a solid argument on the influence and role of non-tangible quality elements, which are harder to measure. In addition, there is a great shortage of European longitudinal studies, which would provide highly reliable evidence on the causal links of our interest. Such studies are being carried out in only a handful of European countries and do not cover the full diversity of European educational contexts.

In addition, most previous studies analysed relevant cause and effect relationships in one specific country or even institutional context. The research evidence covering all elements of our analytical framework was not present in all European countries covered by our study. The findings from national studies could be generalised only to a limited extent due to the diversity of contextual influences and the diversity of national definitions used. The research team had to be very careful about generalising findings from previous research.

Chapter 2: Foundations for lifelong learning – educational journey from early childhood to successful school completion

The main aim of the current study is to get a better understanding of the links between early childhood education and care (ECEC) and early school leaving (ESL). This requires first of all a good understanding of the two factors and what they mean for the development of children.

The needs and profile of the early school leavers is our starting point. What are the main reasons for their difficulties in education? What are the competences (knowledge, skills and attitudes) that they lack and the lack of which prevent them from learning more successfully? Which of these competences could have been supported by ECEC earlier?

Secondly, we identify the specific outcomes for children that high-quality ECEC provision can yield in the short-term and can contribute to in the medium- or long-term. What learning dispositions developed in the early years lead to knowledge, skills and attitudes that might later help prevent early school leaving?

Bringing together the research findings from both ends of the causal chain in the current chapter provides the backbone for the summary of research evidence in the subsequent chapters of this report dealing with the influences of education system characteristics on the development of children.

2.1. Building successful school graduates starting in early childhood?

Underachievement is a term that is often used when describing a failure in some aspect of a person's life, e.g. failure to exercise central capabilities. In the context of education we usually refer to failing to obtain a certain level of qualification or reaching a certain standard. Early school leavers did not necessarily struggle to achieve at school. Rumberger & Lim (2008) identify academic achievement as having an effect on the odds of early school leaving or upper secondary completion, and grades are found to be a more certain predictor than test scores. But, it is not self-evident why someone fails in school. It is necessary to distinguish those who had a reasonably smooth education career, but did not obtain a qualification due to reasons other than academic failure, from those who had difficulties achieving in education that prevented them from getting a qualification – often many years before the opportunity of getting one (Van Landeghem & Van Damme, 2011). Unanimously, the literature concludes that neither underachievement nor early school leaving is a result of only interpersonal factors, but rather a combination of personal, social, economic, education and family domains (Altaras, 2006; Baker, Bridger, & Evans, 1998). Please see Annex 1 for more details.

Competence profile of under-achieving pupils and early school leavers

In terms of personal characteristics, research evidence concludes that the most critical factors for underachievement and ESL, include low social skills, low motivation, low abilities, poor academic performance, learning difficulties and inadequate learning habits (Peček & Razdevšek-Pučko, 2003; Flere et al., 2009; Rovšek, 2013; Zuoza, 2010; Grabažienė, 2010). Behavioural problems can be a cause of bad performance or a result of frustration because of struggling with the curriculum or un-supportive environment. Also the relevance pupils assign to education in general can directly

affect their motivation to remain in school and/or to continue using other opportunities of lifelong learning (Parreira do Amaral, Walther & Litau, 2013). Early school leavers are more likely than graduates to engage in a number of activities that involve a degree of rebellion or insubordination, and therefore, might be considered as deviant and having high-risk behaviour. Academic self-perception, motivation and self-regulation contribute significantly to achievement. Wang, Haertel, & Walberg (1993) found several common characteristics that influenced pupils' performance: academic self-concept, locus of control, self-efficacy, causal attributions for success and failure, anxiety, learned helplessness, irrational beliefs, and peer relationship skills necessary for cooperative learning. The study found that higher educational expectations were associated with lower drop-out rates at upper secondary level (Rumberger and Lim, 2008). Altaras-Dimitrijević (2012) found that underachieving gifted pupils, among other differences, were less self-confident and perceived themselves as less efficient; they were not good in teamwork because they lacked trust and tended to be more cynical. Martín et al. (2008) argued that meta-cognitive ability⁴ had significant impact on achievement. Pupils' attitudes and skills may also be among the defining factors for early school leaving. For early school leavers it was more characteristic to show a lack of aspirations as well as motivation: the higher the achievement motivation, the lower the risk of leaving school without a full upper secondary qualification (Traag & van der Velden, 2008). Many researchers found that achievement in literacy and numeracy has the strongest influence on school non-completion (Marks & McMillian 2001; Andersen 2005). Andersen (2005) found a strong relationship between *pupils'* reading skills, academic self-assessment, and the completion of upper secondary education.

In summary, most researchers in the field agree that poor reading skills, literacy, under-development of working habits and learning strategies together with low motivation and poor social skills are among the most crucial barriers for successful performance at school. However, the question arises as to what are the reasons for these competence gaps and when do they start to form.

Learning outcomes for children in early childhood

Looking at the very beginning of children's development, it becomes evident that the early years are a period of intensive neuro-psychological development of a child. The brain has a remarkable capacity to change during these years in specific time intervals and at different speeds. Studies show that there are windows of opportunity, or a specific span of time, when the development of certain types of abilities develop particularly fast: emotional control develops from birth to 3 years, vocabulary/speech develops during the first three years of a child's life and math/logic – from 1 to 4 years (Cook & Cook, 2009). Language and cognitive development are especially important during the first six months to three years of life and continues later in preschool settings (WHO, 2009).

During infancy and early childhood appropriate stimulation is needed for the brain synapses to link. Development is influenced by a wide range of biological and environmental factors, some of which protect and enhance the child's development, while others may compromise the desired developmental outcomes. Developmental delays before the age of six are difficult to compensate for later in life because early childhood is a particularly sensitive period for brain formation (Naudeau et al., 2011). Rapid brain development affects cognitive, social and emotional growth. The more stimulating the early environment, the more a child develops and learns (WHO, 2009).

⁴ Meta-comprehension, verification of one's results, consciousness of the strategies one uses and consciousness of one's own comprehension.

The importance of the early years has been extensively researched by developmental psychologists. While Piaget (1953) focused on the individual child's progress through biologically determined learning stages, Vygotsky (1978) and (Bandura, 1977) (Social Learning Theory) emphasised the importance of the social context to learning and development. Vygotsky proposed the idea that learning and development take place in the interactions children have with peers as well as with teachers and other adults. In a variety of ways, these social interactions form the basis of the understandings that eventually become internalised in the individual. What children have learned through interaction creates their value system, attitudes, and skills and shapes how they interpret different situations.

Research confirms that participation in ECEC positively influences the development of **language and literacy skills of children** (Bennett, 2012; Sylva et al., 2004; NICHD, 2006; Harrison et al., 2009; Kaczan & Zwierzyńska, 2012). Language and communication skills include a child's ability to express themselves through words, gestures or facial expressions, as well as the capacity to understand others. More high-quality language interactions between children and adults will provide children with the kinds of experiences that can foster their growth. Vygotsky (1978) noticed that children solve problems with their speech. They talk aloud to guide their own thinking processes. Eventually, as children mature, the words they speak aloud to solve problems and to ask for guidance become internalised as part of our repertoire of strategies for problem solving. We have reported earlier that early school leavers struggle with problem-solving skills and learning strategies. In ECEC where there is constant interaction between children and adults, pedagogical practice that includes quality communication can support this process. This finding is especially significant for *immigrant and minority children* who often face a language barrier to successful schooling because their home language and the language of instruction are different. The sooner they are exposed to the new language, the easier they will catch up. Furthermore, children living in a deprived environment often lack stimulating social interaction in their family, while ECEC provides a favourable environment for socialisation.

Reading literacy is one of the strongest predictors of later success in school and lays the foundations for being able to learn any subject content as well as to function in everyday life. Research suggests that, "literacy learning begins long before children start formal instruction or even start kindergarten. It starts even with birth – if a child is surrounded by literate society – and lasts until the time when children read and write conventionally" (Szinger, 2009). Throughout the child's development, the time devoted to literacy-related activities remains essential to the acquisition of reading literacy skills and the effects can be long lasting. Early school leavers reported that they did not enjoy reading and learning, and their literacy scores were commonly lower. Therefore, story-book reading is the most powerful activity contributing to early reading and writing (Szinger, 2010) at a specific age, while for others code-based instruction focusing on alphabet knowledge or phonemic awareness can impact on a range of literacy outcomes (NELP, 2008; NICHD, 2000). The next section of this report will analyse whether ECEC programmes are constituted in a way that helps develop the key competencies from the earliest age.

Socialisation is an important process in child development. It is the process whereby individuals become functioning members of a particular group and take on the values, behaviours, and beliefs of the group's other members. Although the process begins shortly after birth and continues into adulthood, the age of early childhood is a crucial period for socialisation. How children are disciplined, how they respond to this discipline, and how they develop independent behaviour are all connected to the process in which socialisation occurs. Supporting learning as a social process through

daily tasks that foster more collaboration can develop the range of strengths and abilities. Learning to work in groups and with others is not a competence that emerges the moment a child enters a classroom. It takes much work to develop that kind of behaviour and social skills. The findings of most longitudinal studies concluded that early experiences of socialisation with peers in formal settings like ECEC promoted **pro-social behaviour** (i.e. sharing, cooperation, empathy, learning to live and work with other children) and **self-regulation** (e.g. to be autonomous, tolerate frustration, take turns, wait, stand in line)(Sylva et al., 2004; Harrison et al., 2009; Sammons et al., 2007). Neuroscience research confirms that interactions [both quality and content] in the early years appear to be crucial to the development of the executive functions underpinning pro-social behaviours and self-regulation⁵ (Diamond, 2014). Mitchell et al. (2008) and Sylva et al. (2004) state that high-quality ECEC programmes tend to have positive effects on children's social skills and socio-emotional development. ECEC graduates also show higher task orientation, less anxiety, anti-social/worried behaviour and aggression, greater independence and concentration, cooperation and conformity, positive learning dispositions (i.e. motivation to learn, showing persistence and perseverance in carrying out learning tasks), and peer sociability.

The profiles of early school leavers often showed that they lacked persistence in completing tasks, had difficulties staying focused, and in seeing the long-term benefit over short-term frustration. Literature shows that the foundations for self-regulation have their beginnings in early childhood. One of the most well-known and much replicated experiments (Marshmallow test) shows that children are not very good at delaying immediate gratification and that is a skill that needs to be systematically developed (Mischel et al., 1972). Kidd, Palmeri, & Aslin (2013) demonstrate further that being able to delay gratification is also significantly influenced by the environment as by innate ability. Children who experienced reliable interactions immediately before the marshmallow task waited on average four times longer—12 versus three minutes—than youngsters in similar but unreliable situations. Again we can draw a parallel about the importance of ECEC as an environment that can help develop dispositions for self-regulation, which are later observed to be lacking in early school leavers.

In light of the earlier mentioned theory on social learning (Bandura, 1977) it is worthwhile mentioning that children (as well as adults) learn how to behave by imitating the behaviour of those closest to them. Bandura strongly argued that aggression, for example, is caused as much as by environment as by innate personal traits and psychological process. Therefore experiencing pro-social behaviour models in ECEC can lay the foundations for constructive conflict management in compulsory schooling.

In summary, juxtaposing the profile of underachievers/early school leavers with the main developmental outcomes formed during the early years, one can draw interesting parallels. The early cognitive abilities, which include early literacy, language and numeracy form the foundations for further development of relevant competencies at school, help avoid the formation of early gaps that would require remedial action early during the compulsory schooling. Similarly, pro-social behaviour, self-regulation and favourable learning dispositions are a huge asset, which young children might be able to take from ECEC institution to school and which form the basis for avoiding non-cognitive characteristics that are associated with underachievement and early school leaving (see Table 3).

⁵ Child Development Project in Harvard. Available at: www.developingchild.harvard.edu.

Table 3: Juxtaposition of competence profiles of early school leavers/underachievers and outcomes developed during the early years

Cognitive characteristics		Non-cognitive characteristics	
Underachiever/Early school leaver	ECEC graduate	Underachiever/Early school leaver	ECEC graduate
<ul style="list-style-type: none"> ▪ Poor reading literacy ▪ Poor verbal skills ▪ Poor language skills ▪ Poor analytical thinking, and abstract reasoning ▪ Lack of problem-solving skills ▪ General lower IQ 	<ul style="list-style-type: none"> ▪ Early literacy ▪ Language (receptive language and expressive language) ▪ General knowledge numeracy (mathematics). 	<ul style="list-style-type: none"> ▪ Low self-esteem, academic self-concepts and perception of self-efficiency ▪ Lack of communication skills and constructive conflict management ▪ Problems with focusing attention and staying on the goal. ▪ Bad attitude towards teachers and school ▪ Bored, too disruptive or too quiet in class. ▪ Low motivation ▪ Anxiety ▪ Open to new experiences (mostly for opportune early school leavers) 	<ul style="list-style-type: none"> ▪ Pro-social behaviour (sharing, cooperation, conformity, compliance, peer sociability) ▪ Self-regulation (autonomy, social and emotional maturity, self-esteem) ▪ Learning dispositions (academic motivation, on-task behaviour, capacity for independent work, responsibility in doing tasks)

Source: PPMI (based on the literature review).

Even though solid research evidence linking the development of a child in the early years with successful completion of upper secondary level is limited, a clear parallel can be drawn between the important competences that early school leavers tend to lack and dispositions to the development of these competences that are acquired in good-quality ECEC. The existing research evidence proves that the dispositions developed in early years tend to persist throughout the learning process and this is discussed in the next section.

2.2. Are positive outcomes of ECEC sustained?

Analysis of a large body of literature shows that participation in high-quality ECEC generally leads to **better developmental outcomes** for children. Moreover, longitudinal research confirms that the positive effects of high-quality ECEC tend to persist at later stages of children's development and learning process thus strengthening the foundations for lifelong learning.

Immediate outcomes

In terms of immediate impact of early childhood education and care, many researchers point out school readiness (OECD, 2010; Armstrong et al. 2012; Dursun, 2009; Erkan & Kirca, 2010; Unutkan Polat, 2007; Gormley et al., 2008). Various studies highlight that participation in high-quality ECEC leads to better adjustment to formal learning within a school setting (i.e. improved educational opportunities), especially for children from disadvantaged groups. It is generally observed, that children who have participated in high-quality ECEC were better prepared for school in both cognitive and socio-emotional domain. Peisner-Feinberg et al (1999; Barnett, 1996; Puma, Bell, Cook, & Heid, 2012; Zupancic & Kavcic, 2006; Kruszewska, 2011). These studies also showed that preschool graduates had greater academic motivation, on-task behaviour, capacity for independent work, spent more time on homework, and had better self-esteem. High-quality ECEC experiences, in terms of both classroom

practices and teacher-child relationships, enhanced children's abilities to take advantage of the educational opportunities in school. These tendencies were especially salient to the school career of disadvantaged children (Lazzari & Vandenbroeck, 2013). Closing the language gap, reducing grade retention, better integration and reducing high-risk behaviour were the most common benefits of ECEC for disadvantaged pupils, accompanied by physical and mental health improvement in general (Heckman, 2008; C. Nelson, Thomas, & de Haan, 2006; Lynch, 2005; Black et al., 2010; Dumas & Lefranc, 2012; Spiess, Büchel, & Wagner, 2003; etc.).

The case studies from the ten European countries developed as part of the current study also confirmed the above findings. The Finnish case study specifically emphasised the importance of early childhood education for meta-cognitive and non-cognitive development, which was perceived as crucial for successful schooling.

Box 1: Importance of ECEC for children's non-cognitive development

Children learn that other children are different and they learn to accept those differences. They learn to solve conflicts, to communicate their ideas, to share, to work in groups. It is especially important for children to spend one year in a bigger group of children. Children learn to follow the rules, to do things together, to play, and to learn. The pre-primary year lays the foundation for further learning at school. Children start seeing themselves as learners. They do not learn to read and write in pre-primary class but they become interested in literacy, in books, they develop their language. Parents participating in a focus-group discussion stressed that what they wanted for their young kids in pre-primary class were not academic skills, but social skills, self-esteem, to enjoy school and to have friends. It was explained that the feeling of being a successful learner is very important for a young child, as this feeling would carry him through all his life.

Source: case study report (Finland).

Impact of ECEC in later stages

Research tracking the long-term trajectories of a child's life is still rare and, therefore, reliable evidence for sustained benefits from early childhood education and care is limited. However, those that did include long-term follow up (i.e. beyond primary school), reported that some benefits of early stimulation were maintained throughout further schooling (Baker-Henningham & Lopez Boo, 2010). Most of the research evidence available looked at the effect of children's participation in the last years of ECEC only (i.e. 3-6-years old).

Vandel et al. (2010) and Sylva, et al. (2012) found that higher quality ECEC predicted higher cognitive-academic achievement at the age of 15. Osakwe (2009) found that pupils who had participated in ECEC performed better in terms of cognitive skills, motor-skills, and social skills than pupils who did not attend ECEC. The benefits of early stimulation were maintained in some cases for as long as 6 years (Klein & Rye, 2004), 10 years (Drange & Telle 2010) or even 22 years after graduating from ECEC (Kagitcibasi et al. 2009).

Hazarika & Viren (2010) found that previous participation in an early childhood programme was estimated to raise the school enrolment by 31 percentage points. Similarly, Berlinski, Galiani, & Manacorda (2008) observed that children who attended preschool were more likely to be enrolled in school and complete more grades; both effects increased with child age (children aged 7 to 15 were observed).

Significant positive effect was found also on math skills and overall school success. Mitchell et al. (2008) after reviewing 117 studies on the impact of early childhood education observed that most studies comparing children who participated in ECEC

with those who did not, found positive gains from ECEC participation for mathematics at the time of attendance and in the early years of schooling. Furthermore, PISA 2012 demonstrated a long-lasting ECEC impact for math: children who participated in ECEC scored significantly higher in mathematics at the age of 15. In all countries for which the data was available, pupils who had attended pre-primary education for more than one year outperformed students who had not. This finding remained unchanged after socio-economic status was accounted for in all countries (OECD, 2013a).

In Flanders SIBO research⁶ (van Mieke & van Damme, 2011) showed that children who attended fewer years of ECEC had on average a worse school trajectory. Early language and numeracy awareness, which is stimulated in ECEC, was a predictor of the achievement level throughout primary school. In a recent analysis by Lamote et al (2013) the knowledge of numbers at the end of pre-primary education was a significant predictor of drop-out from secondary school (next to several other predictors). The effects of repeating a pre-primary grade on non-cognitive outcomes (psycho-social functioning) during primary school appeared to be positive. In the long run a negative effect of repeating pre-primary education was observed. Research showed that in secondary school older children (former repeaters), when confronted with a failure, more often chose to go to part-time education or leave school without a certificate than children who did not repeat beforehand.

Box 2: Relationship between underachievement and ECEC attendance in Flanders

...the focus group with Flemish experts on early school leaving revealed that pupils with a problematic school trajectory (such as truancy) often had not attended pre-primary education and did not regularly attend the first years of primary school (although this is compulsory). This correlation does not imply a direct causal relationship. It only shows that early school attendance can be a proxy for family background, which is related to school attendance in later stages of education.

Source: case study report (Belgium, Flanders).

The focus groups conducted as part of developing the case study reports for this study highlighted that ECEC had great potential in preventing early school leaving by promoting, supporting and strengthening processes that enabled pupils to develop their abilities in an optimal way.

In summary, a significant body of evidence shows that the reasons for underachievement and early school leaving can be traced to failure to participate in ECEC or its low quality and, vice versa, children's cognitive and non-cognitive characteristics developed in ECEC can be seen as helpful fundamentals for the successful completion of school at upper-secondary level.

At the same time it is crucial to remember that education is not a static process – it has to accommodate the child's needs and adapt to new conditions, just like the child itself. Positive impacts of ECEC can easily vanish, if the child does not find opportunities to apply and develop them further in the education process.

Beliefs as to why some individuals or groups are more successful than others can be seen to vary on a continuum depending on how much of the responsibility for success is placed on the individual learner vs. the social arrangements around learning. Providing "education for all" requires that education be efficient, equitable, cohesive and representative so as to accommodate children's constantly changing needs.

⁶ SIBO-data is available at: <http://steunpuntssl.be/Onderzoek/Databanken>.

Therefore, successful child development is conditional on the ability of the education system to provide opportunities for children to enhance their capabilities starting from early childhood regardless of their social, economic and family characteristics. What would the quality characteristics of such a system be? What are the most important quality elements of ECEC that lead to positive outcomes for children? What are the crucial aspects of general education that help ensure continuity of these positive outcomes? What is the importance of smooth transitions between levels of education and what are the conditions for effective transitions? The answer to these questions is provided in the next Chapter.

Chapter 3: Well-balanced education system as a critical element strengthening foundations for lifelong learning

A child's right to education is based on equal opportunity and aims at promoting the fullest possible development of all, without discrimination on any ground (CRC Article 28 (UN, 1989)). The right to education can sometimes be taken narrowly, simply as the opportunity to be enrolled in school. However, providing access to the system is not enough to obtain the actual individual and social benefits that should come from education.

Studies have found associations between some factors related to the child's background and its educational career/achievement. In general, what is well-established across Europe is the social profile of those most likely to leave education early: *male, of lower socio-economic status, belonging to vulnerable social groups (such as migrants), or having learning difficulties* (Cedefop, 2013). However, accepting the idea that low socio-economic status, migrant background or disability is a powerful determinant of a child's success removes the responsibility from policymakers to make a system as equitable as possible and assumes that some children just have to fail. In a global economy, the benchmark for educational success is no longer improvement by national standards alone, but by those of the best performing school systems internationally. The latest results from the PISA assessment revealed a number of features which the world's most successful school systems share and from which others can learn. For example, pupils in high-performing countries consistently say that achievement is mainly a product of hard work, rather than inherited intelligence, which suggests that education and its social context can make a difference in instilling values that foster success in education. High-performing systems embrace diversity among students with differentiated instructional practices; their teachers have high expectations for every pupil and realise that ordinary pupils have extraordinary talents. Great attention is given to selection and training of staff and when deciding where to invest, the quality of teachers is prioritised over the size of classes (OECD, 2012a). A high-performing system is well balanced and does not prioritise any particular education stage at the cost of another.

This Chapter describes the most crucial elements of a well-balanced education system starting from early childhood education and care.

3.1. Quality ECEC

As the previous chapter concluded early childhood education and care is a crucial stage in children's development as it lays all the necessary foundations for children's successful school career. However, the sustainability and guarantee of positive outcomes is conditional on the quality of the system children are exposed to – both ECEC and compulsory school. Quality of ECEC is a multi-level and multi-dimensional concept. In this study we examine four main quality dimensions of ECEC: access quality, governance quality, structural quality and process quality (for more details please see Annex 1). This section presents the elements of high-quality ECEC and overviews the current situation of every quality ECEC dimension across European countries. The comparative analysis provided in this section is based on the evidence collected through desk-research, policy mapping and case study analysis.

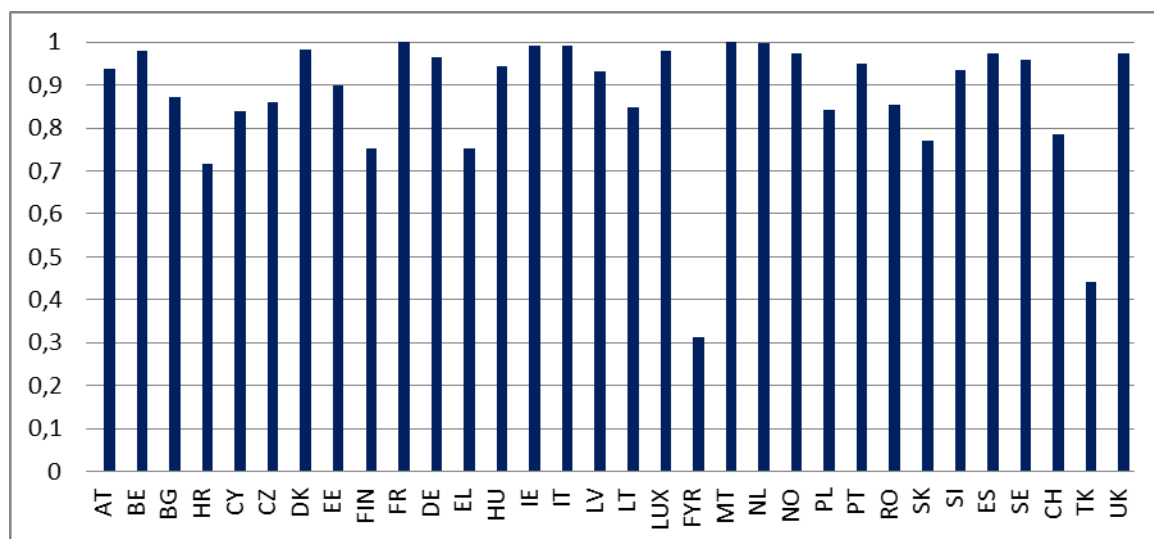
3.1.1. Access quality

Access quality is the bottleneck of the ECEC system, which reveals the capacity of ECEC services to accommodate the needs of all children. The width of this bottleneck depends on how equitable, affordable and comprehensive early childhood education is to guarantee the possibility of enrolment for all children regardless of their background. Access quality needs to be reflected in participation of different groups, i.e. for the system to be found representative, all groups have to have equal chances of using its services. Such services incorporate diversity, exposing children to their own customs and traditions as well as to the ideas and experiences of others providing them with the opportunity to grow out of the self-centred stage in thinking and behaving. Consequently, children who are confident in their abilities and comfortable in diverse environments when they are young are more likely to become engaged citizens who value a democratic, pluralistic society (Friendly & Lero, 2002). Also, they develop the skill to take somebody else's perspective and tolerance in everyday interactions, which are curricula skills when we are talking about good relationships. As noted before, many early school leavers act and feel like outcasts, which leaves very little for them to hold on to and stay in school when academic life becomes too hard for them.

The use of ECEC services

Differences in ECEC enrolment between children of different age groups and background are the first signals that the services are not universally accessible. At the moment only 14 European countries have reached the ET 2020 benchmark of at least 95% of children between the age of 4 and the starting age of compulsory education participating in preschool education (see Figure 3 below). Austria, Hungary, Latvia and Slovenia are very close to achieving it. The lowest ECEC attendance remains in candidate countries – Macedonia and Turkey where less than half of children from 4 years up to compulsory school age attended ECEC in 2012.

Figure 3: Enrolment in ECEC of children from 4 up to compulsory school age



Source: Eurostat (2012).

The use of ECEC services among 0 to 3-year-olds tends to remain less widespread. Usually no more than one third (i.e. 33%) of 0-3-year-olds are involved in early programmes (Eurydice, 2014a). The exceptions are Belgium, Denmark, France, Luxembourg, Netherlands, Norway, Portugal, Slovenia, Spain, Sweden and UK, where the enrolment of the youngest in ECEC varies from 35% (Portugal and UK) to 74% (Denmark). While the lowest enrolment (no more than 5%) is in Czech Republic, Poland, Romania, Slovakia and Turkey (Eurydice, 2014a). The lower enrolment in ECEC of the youngest children can be explained by several factors. Firstly, in most countries various ways of guaranteeing access to ECEC, i.e. legal entitlement to ECEC or compulsory enrolment to ECEC, are applied only for older children. Typically, the legal entitlement to publically subsidised ECEC mostly starts when the child is around 3-years old. Only six European countries, namely Denmark, Estonia, Finland, Norway, Slovenia and Sweden guarantee a legal right to ECEC to each child soon after birth, often immediately after the end of parental leave (Eurydice, 2014a). In addition, 13 European countries have also committed to providing an ECEC place for all children by making attendance compulsory for at least the last pre-primary year (see Table 4 below).

Table 4: Compulsory nature of ECEC

Child's age, when ECEC becomes compulsory	Country (length of compulsory ECEC attendance, number of years)
3 years	Hungary (3)
4 years	Luxembourg (2), Switzerland (2)*
5 years	Austria (1), Bulgaria (2), Croatia (1), Cyprus (1)*, Greece (1), Latvia (2), Malta (2), Netherlands (1), Poland (2), Serbia (1,5)*

Source: PPMI (based on policy mapping reports).

Note: *In Cyprus ECEC is compulsory from 4 years and 8 months. In Switzerland the length of compulsory ECEC attendance might differ among cantons. In Serbia ECEC is compulsory from 5.5 years.

However, seven European countries, namely Croatia (until September 2014), Italy, Lithuania, Romania (until September 2014), Slovakia, Iceland and Turkey, have not provided either a legal entitlement to or compulsory enrolment in ECEC (Eurydice, 2014). The social security system may also indirectly influence the enrolment of the youngest children. Long parental leave and benefits can encourage parents to stay at home with their young children (Eurydice, 2009). Finally, cultural norms may also influence the use of ECEC services. ECEC services may be regarded as positive for "older children", but not for the very young ones (European Commission, 2009).

Box 3: Regional differences in enrolment of children in ECEC in European countries

In *Lithuania* there is a huge disparity in children's enrolment in ECEC between cities and rural areas. On average, 80.1% of children aged 1-6 years were attending institutions in cities, while in rural areas the percentage was only 28.8% in 2012. The enrolment of children aged 1-2 years in rural areas was 4.2 times lower than in cities (9.7% and 40.3% respectively). In *France*, there is greater enrolment of the youngest children in day care centres in the Southern part of the country than in the Northern part. In *Croatia*, the lowest rates of enrolment of children in kindergartens in 2012 were in the more rural Eastern counties, while the highest rates were on the coast, the City of Zagreb and the County of Varaždin.

Source: case study reports.

Research and case studies show that children with special needs and children with migrant and socio-disadvantaged and/or ethnic minority background tend to participate in ECEC to a lower extent. For example, in Spain the least involved were immigrant children, those living in households whose head had low educational

attainment and those from the 40% of the poorest families (National Survey on Living Conditions, 2011). In Austria immigrant, special needs, undocumented children, and those from remote areas were said to be less involved in ECEC.

European countries seek to increase the enrolment of disadvantaged children in ECEC by applying various support measures. Some countries apply priority enrolment criteria to ECEC. They may include parents' employment status, low socio-economic status, cultural, linguistic and geographical criteria. For example in Belgium publicly funded childcare centres are obliged to reserve 20% of their capacity for single-parent families, families living in poverty and crisis situations. Additional support for children is also provided through specific measures to support children's development, learning and attainment, especially language learning; through the provision of additional or specialist staff; and/or through the establishment of special organisational and/or funding arrangements (Eurydice, 2014a). These measures are crucial for providing equitable access for disadvantaged children and, as a result, opportunities for their smooth development in the form of stimulating environment, which these children often lack at home.

Factors influencing access quality

Case study and research analysis identified several barriers limiting ECEC access quality and potentially explaining inequalities in enrolment between different groups of children.

The access barrier can sometimes be embedded in the policy itself, even when good intentions guided policy development. Priority enrolment criteria might be set in a way that actually discriminates, rather than eases access of some groups (UNICEF and SIPRU, 2013).

Shortage of places in ECEC was named as a factor limiting children's enrolment and use of ECEC services in half of the case study reports. According to the 2012 parent survey in Sweden, there was demand for new places in preschool for 3 700 children aged 1 to 5 years or around 1% of children in this age group. The Austrian report identified a lack of places in ECEC, especially for those under 3 years. In Belgium a large-scale study in 16 Flemish cities showed that 10% of parents did not succeed in finding a childcare place at all in 2007. The Lithuanian case study indicated the lack of places in public ECEC institutions in the booming large cities and the absence of ECEC institutions close to children's homes in sparsely populated rural areas. In addition the Croatian and Lithuanian reports observed that many people in the rural areas were poor, many were unemployed, and could not afford to take their children to a remote ECEC institution every day.

Case studies also revealed that the lack of places in regular ECEC limited the overall quality of ECEC as it provoked the emergence of non-regulated services where the quality of services was more difficult to ensure. This was observed in Belgium and Spain. In Spain there were many centres, such as play centres, nursery schools, etc. providing care for children below 3-years of age, but these were not considered pre-primary centres officially and did not comply with the regulations (infrastructure, human resources, curriculum) established for proper settings. The situation in Belgium was similar, where the number of places in childcare has more than tripled since 1990. However, this increase has happened mostly in sectors with hardly any staff qualification requirements, and where the employment conditions were extremely precarious: family day carers, out of school care and independent day care centres (mostly for profit).

Underinvestment in ECEC is another factor that defines the availability of quality ECEC services. Most countries invest less than 1% of GDP in ECEC services, despite the European Commission Network on Childcare (NICH, 1996) recommendation to allocate no less than 1% of GDP to ECEC services. Only Denmark, Iceland, Norway and Sweden allocated over 1% of GDP expenditure on ECEC services in the most recent years for which statistics was available (the top figures were 1.7% for Norway⁷ and 1.69% for Sweden⁸). In 11 out of the 34 countries studied the share of GDP did not reach 0.5% (Eurostat, 2011). Lack of available funding for ECEC service can often limit the quality provision of these services (see box below).

Box 4: Implications of underinvestment in ECEC in some Member States

In *Austria*, due to financial constraints not all federal provinces offered free services: in Vienna pre-primary attendance was free for all children, while in Upper Austria it was free only for children from 2.5 years. In *Lithuania*, not all municipalities could afford a sufficient number of ECEC places in all, particularly rural, neighbourhoods. In England insufficient funding limited possibilities for addressing diversity in ECEC groups better.

Source: case study reports.

Research review also revealed that under investment in ECEC was one of the factors weakening the provision of **affordable** and accessible ECEC services for all children and especially for those from rural areas or large families.

Two factors were identified as barriers hindering greater enrolment of vulnerable children in ECEC in case studies:

- **Lack of diversity in the educational process in ECEC.** In Belgium a large-scale study in 16 Flemish cities revealed that 10% of parents claimed that ECEC services did not meet their demands, and greater focus in the initial training and continuing professional development of ECEC staff was needed for working with disadvantaged families. Lithuanian focus group participants concluded that there was a lack of programmes for children from social risk families, children with special educational needs, those whose mother tongue was not Lithuanian or for bilingual children. Also, the "Research on change of conditions for children's institutional preschool and pre-primary education in different Municipalities" (2013) showed that two-thirds of ECEC institutions had children with special educational needs, but less than half of them (46%) had programmes which were adapted to these children.
- **Lack of flexibility in opening hours.** Many case study reports noted that opening hours of services were inadequate for some working parents; there was a lack of institutions offering services for parents working untypical hours, during weekends or holidays. For example, only 15 institutions in Austria were open on Saturdays and/or Sundays. In France, the opening hours were also not convenient for non-standard working hours and parents had to choose family day care. In Spain some education inspectors noted that it was very difficult to re-arrange personnel and timetables in order to, for example, open a centre in the afternoon if, in principle, it is supposed to be closed.

Furthermore, the research evidence shows that **affordability** of high-quality ECEC services for disadvantaged parents remains one of the main barriers to wider access to

⁷ globalis.no.

⁸ Swedish national statistics, 2012.

high-quality ECEC as they often cannot afford to pay for ECEC services (Cleveland & Krashinsky, 2002). In the majority of analysed countries ECEC services are highly subsidised: governments pay the largest share of costs. On average, households across EC-2008 have to cover 14.4 % of ECEC costs. Subsidies are provided in various ways such as direct payments to providers, through tax incentives, vouchers to parents for the purchase of services and fee reductions or even exemptions depending on such criteria as family income, number of children in the family, age of child, employment status, etc. Such measures make ECEC more affordable to all parents (Eurydice, 2014b).

Finally, insights from the case studies allow stating that some elements of other high-quality dimensions can increase the potential of access to high-quality ECEC. For example, high quality of leadership (governance quality element) might lead to better organisation of services that meet children's and their parent needs in daily ECEC practices. Consequently, improvement of diversity in the educational process in ECEC might reduce one of the main barriers to ECEC for disadvantaged children.

3.1.2. Governance quality

Governance quality is treated as the "glue" which keeps the early childhood system together and as a key element for development of a national early childhood policy (UNESCO, 2007). Governance refers mainly to the allocation of responsibility for decision-making and implementation across government departments, levels of government and public and private actors. Consequently this leads to the emergence of distinctive patterns of ECEC governance in terms of ECEC models, administration, quality of leadership and monitoring and evaluation practices.

Models of ECEC services

The models of ECEC services in Europe can be categorised in two types:

- A *unitary system*, where one ministry, usually the ministry of education, oversees all provision for the youngest children including funding, regulation, curriculum, access, workforce, types of services, and training, etc. Unitary ECEC systems tend to be more favourable for the quality of ECEC as they lead to a shared approach to social objectives, regulation, funding, access, subsidies, curriculum and staff professionalism (UNESCO, 2010b).
- A *split system*, where ECEC provision is differentiated for younger and older children, usually for groups of over and under three-years-old, and the responsibility for ECEC services is split between two or more ministries. Typically, ECEC services for children of 0 to 3-years-old primarily focus on care provision and are under the supervision of social welfare ministries; while ECEC services for children aged 3 and above are under the responsibility of education ministries and concentrate on early education until children reach compulsory school age. The split systems, in comparison with the unitary ones, have larger differences between services in welfare and education in key areas such as access, regulation, funding and workforce. Consequently, this might lead to inequality and the lack of continuity for children, parents and ECEC staff. However, the adverse effects of split systems are frequently tackled with different measures to enhance the continuity of education and care and to promote coordinated approaches to ECEC provision. For example, inter-ministerial mechanisms, e.g. coordination bodies, consisting of representatives from relevant sectors, as in Ireland

(Panteia, 2013); training a unified and well-educated workforce, enhancing learning for all ages and ensuring smooth transitions for young children (UNESCO, 2010b).

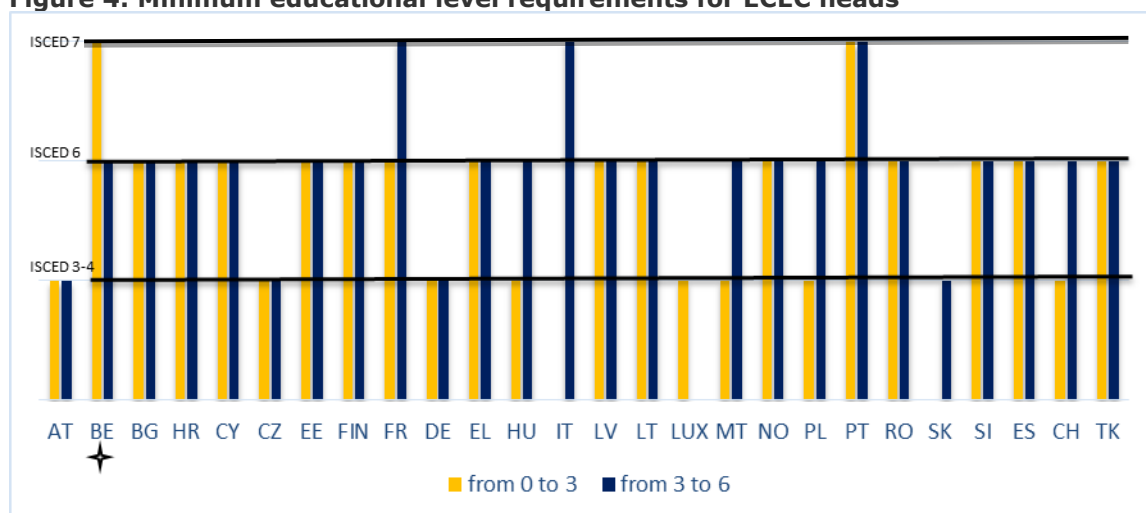
Whichever model is in place, the goal should be to ensure continuity of the ECEC system by implementing adequate measures to ensure harmonisation and effective coordination within sectors.

Quality of leadership of ECEC

Numerous researchers stress the importance of leadership to the provision of high-quality ECEC services. It was observed that children made better all-round progress in settings with strong leadership (Sylva et al., 2004). Effective leadership is associated with the following features: delivery of integrated services equally available for every group of children; working towards creating a community and providing high-quality ECEC services; supporting stimulating and subsidising professional development, motivating and encouraging teamwork, information sharing, high qualifications and good-quality systems of governance and monitoring of ECEC services (Siraj-Blatchford & Manni, 2007; Bennett, 2012).

European countries ensure quality of leadership through a wide application of qualification requirements for ECEC managers. They vary from upper secondary or post-secondary diploma (ISCED 3-4) to Bachelor's or even Master's degree (ISCED 6-7) (see Figure 4). In four European countries (Denmark, Ireland, Sweden and the United Kingdom – England, Wales and Northern Ireland), there are no official requirements for the initial qualification of heads in ECEC. This is also the case in Slovakia with settings for younger children. More important than the level of qualification is the content of training. Not many countries have standards of competences for principals that are the foundations for training. However, Denmark, Sweden and the UK have formal competence requirements for this role: in Denmark, the legislation states that local authorities have to ensure that ECEC staff has the necessary competences to perform this job. While in Sweden, only someone who has acquired the appropriate skills and competences through training and experience may be appointed as head (Eurydice, 2014a).

Figure 4: Minimum educational level requirements for ECEC heads



Source: Eurydice (2014).

Notes: ISCED 3-4 – upper secondary or post-secondary non tertiary education; ISCED 6 – Bachelor's degree; ISCED 7 – Master's degree.

* In Belgium provided data is applicable for the German-speaking community.

Data was unavailable for the Liechtenstein, Luxembourg, Macedonia, Montenegro and Netherlands, (for older children).

In Denmark, Ireland, Sweden and UK (England, Wales and Northern Ireland) there is no qualification requirements for ECEC heads. This is also the case in Slovakia with settings for younger children.

In Italy the minimum level of qualification for heads in settings for younger children is defined at regional level (from ISCED 3 to ISCED 5 Master's degree).

Besides qualifications, ECEC heads are required to have professional experience. The required minimum period ranges from 2 to 5 years. In addition to professional experience, in almost half of the countries applicants for positions as heads of ECEC centres are required to undertake special training for headship (Eurydice, 2014a). Case study reports reveal that sometimes ECEC managers are also required to have a certain level of language proficiency or to prove their management and leadership competences. For example in Finland the principal must be qualified as a kindergarten teacher, have a Master's degree and leadership competencies. In France the managers must have a higher education degree (young child educator, or nursery nurse) with a good three years' experience. In Lithuania the heads of ECEC must have a university higher education (or equivalent education) degree, the necessary professional qualification and at least 3 years of teaching experience, both key and leadership competencies, no less than one year's experience of managing a group of people, be able to work with information technologies and have a good command of Lithuanian and know at least one foreign language at level B1 or higher.

High-level qualifications and additional requirements for ECEC managers are important, but are of themselves not sufficient for the efficient management of ECEC. A transparent recruitment procedure and the possibility to replace underperforming managers were also named as important factors contributing to quality of leadership. Two case studies indicated that where these are lacking the effectiveness of ECEC management is weakened (see Box 5 below).

Box 5: Conditions for effective management of ECEC

In *Croatia*, many heads of ECEC institutions are capable and strong leaders, but some heads were given their positions because of their political or other connections rather than merit, so the high-level formal requirements for their qualifications do not always guarantee the quality management of institutions.

In *Lithuania*, some heads of ECEC lack managerial skills and are very conservative; they are not open to change or innovation. Some ECEC managers still hold posts they held in the Soviet era and it is quite hard to replace them if they meet formal requirements for qualification. The non-compulsory nature of attestation for ECEC managers can be one of the explanations for such a situation.

Source: case study reports.

In more decentralised ECEC systems ECEC heads have greater autonomy and more responsibility for various administrative duties than in less decentralised systems. In terms of recruitment of ECEC practitioners, in almost two-thirds of European countries (20 out of 34) ECEC institutions are free to recruit ECEC practitioners (see Table 5). This freedom can contribute to service quality because institutions can hire staff that suits the needs of the population they cater for.

Table 5: Level of autonomy of ECEC institutions in recruitment of ECEC practitioners

ECEC institutions are free to recruit ECEC practitioners	ECEC practitioners are recruited at municipal, regional or central level
Belgium*, Bulgaria, Czech Republic, Croatia, Denmark, Estonia, Hungary, Ireland, Latvia, Lithuania, Montenegro, Netherlands, Norway, Poland, Serbia, Slovakia, Slovenia, Sweden, Switzerland, United Kingdom	Austria*, Cyprus, Finland, France*, Germany, Greece*, Italy*, Luxembourg, Macedonia, Malta, Portugal*, Romania, Spain, Turkey

Source: PPMI (based on Eurydice and policy mapping reports).

Notes: *In the French-speaking community in Belgium, this is not applicable to providers of ECEC for 3-6-year olds. In this case the recruitment of ECEC teachers is organised centrally (at the community level).

In Austria, the founder of an ECEC institution is in charge of recruiting the ECEC educator/carer. In Portugal only in the state sector of preschool education (3-6) is the recruitment done at national level. In the private for-profit and non-profit sector (0-6) the recruitment is done by the institutions.

In France this is applicable only to providers of care to children aged 3-6. Practitioners working with children aged 0-3 are recruited by the ECEC institutions.

In Greece municipalities are responsible for staff recruitment for children aged 0-3, while practitioners for ages 4-5 are recruited centrally.

In Italy practitioners for children aged 0-3 are hired by municipalities and practitioners for the 3-6 group are recruited either by municipalities (if ECEC services are run by Municipalities) or by national government (if ECEC services are run by the state).

In Norway the owner is responsible for recruitment or it can decide to delegate the recruitment procedure to ECEC institutions.

Monitoring and evaluation of ECEC

Although the research on governance quality is not very extensive, the prevailing results associate the existence of comprehensive and effective ECEC monitoring and evaluation mechanisms with high-quality ECEC. Data collection and monitoring can help identify the best interests of the child and establish the facts about the ECEC sector, for example, whether children have equitable access to high-quality ECEC. Financial monitoring can help inform planning, contribute to more efficient resource allocation and increase cost-effectiveness. Furthermore, monitoring can help identify gaps and challenges in the functioning of the ECEC system and can be used to ensure accountability and support improvement in ECEC services, which can consequently lead to meaningful impacts on child development (OECD, 2012b) Two case studies

from Austria and Croatia provided examples of how monitoring and evaluation are applied in practice (see the Box 6 below).

Box 6: Examples of the use of ECEC monitoring results for quality ECEC improvement

In *Austria*, in the city of Innsbruck (Tyrol), external monitoring indicated an increase in the number of children with migrant backgrounds in ECEC. Following the results, various projects for better diversity management were implemented. In Upper Austria results of monitoring are used to specify and improve contents and themes of further trainings.

In *Croatia* self-assessment results were used to improve the structural quality of ECEC. Self-assessment results of one Croatian ECEC institution revealed that employees were not satisfied with the large number of children in the groups. The need for specialist support staff was also emphasised. Parents were not satisfied with the lack of play equipment inside and outside the pre-primary facility, poor safety, too large groups of children and the absence of specialist support staff. Following these results, the ECEC governing body prepared a plan for ECEC improvement (e.g. better communication between practitioners, as well as between practitioners and parents; transformation of the traditional educational approach into a more modern child-centred approach; defining the vision and applying it in practice).

Source: case study reports.

Analysis shows that an absolute majority of the analysed 34 European countries monitor ECEC quality through external and/or internal evaluation procedures, which differ in terms of their compulsory nature and level of comprehensiveness. Case studies show that some countries (e.g. Belgium, Finland, Spain, Sweden and UK) have both internal and external evaluation of ECEC. In Austria the comprehensiveness of ECEC monitoring depends on federal provinces. In Austria as well as in the UK, only external evaluation of ECEC is mandatory. The other countries analysed in depth have only one type of ECEC monitoring procedures, which are not compulsory. For example in Croatia and Lithuania internal ECEC monitoring prevails.

The comprehensiveness of evaluation varies both between countries and types of setting. Children's learning outcomes are often subject to evaluation only in settings for older children. In general it is noticed that evaluation of ECEC services for younger children, especially in split ECEC systems, is less comprehensive than evaluation conducted for ECEC services for older children. For example, in Switzerland the evaluation of settings for younger children covers such aspects as children's well-being, management of ECEC settings and compliance with regulations, whereas settings for older children undergo much wider evaluation, which in addition to the above-mentioned aspects also monitors staff performance, children's learning outcomes and parental satisfaction. In Slovakia, ECEC services for 0-3-year-olds are evaluated only in the light of compliance with general health and safety regulations, while evaluation of services for 3-6-year-olds encompass compliance with regulations, staff performance, management, parent satisfaction, children's well-being and their learning outcomes (Eurydice, 2014a).

In addition to the formal monitoring/evaluation procedures of ECEC quality, the countries collect a varying spectrum of data about the ECEC sector within regular national statistical surveys (e.g. statistical yearbooks, thematic publications). The case studies reveal that they mostly focus on various structural and access characteristics of ECEC. For example, they encompass data collection on the number of children in ECEC institutions by age, sex, place of residence, family characteristics, education programmes, different types of groups, language of instruction, etc.; number of ECEC institutions, gender of staff, type of ECEC provider, ECEC practitioner's qualifications, and funding of ECEC. Much of the data collected on the different aspects of ECEC

quality allows it to be used for monitoring and evaluation. However, the level of detail of collected data is not always sufficient. For example in Spain information about ECEC services for 0–3-year-olds and 3–6-year-olds are aggregated within the same category. This limits the analysis of the quality of services for different age groups. Consequently, this might limit the possibility to provide ECEC services best meeting the needs of children. Besides, Eurydice (2014a) also revealed that all countries carry out capacity monitoring and forward planning of centre-based ECEC provision for older children (i.e. 3–6-year-olds).

However, all these monitored aspects provide very little information on the actual effectiveness of programmes. We know if participation has increased, if there are more places available, or what quality elements are practiced; however, knowledge of whether ECEC is performing its developmental role is missing. To some extent effectiveness can be assessed before enrolment in primary school, although this does not allow fine-tuning ECEC programmes. We have not found evidence that countries monitored whether ECEC programmes should be adjusted in order to satisfy the development need, for example that some areas of development have to get more support than others. Children nowadays, from an early age, are exposed to a lot of interaction with media and ICT, and rather less with peers and even parents. In the future it would be worth monitoring the curriculum content (e.g. if there is a need for more attention to social skills or even intercultural sensitivity than for example ICT literacy). This kind of “soft monitoring” is very hard to set up in systemic way, but it can be introduced within revisited training programmes for ECEC staff in combination with quality assurance mechanisms. For evidence-based policymaking, ECEC data collection should be purposeful, coordinated and regular. We find that in the countries reviewed this is often lacking since data is not collected with a specific intention i.e. within an adequate monitoring framework based on the notion of quality. Instead data is selected based on availability and simplicity of collection. The foundations for ECEC quality assurance are stronger in the countries where internal and external evaluation procedures are mandatory and where data collection is well organised to satisfy the needs of monitoring and evaluation.

3.1.3. Structural quality

Structural quality includes a number of input characteristics that support the quality of early childhood education and care and contribute to the child’s positive development.

ECEC staff characteristics

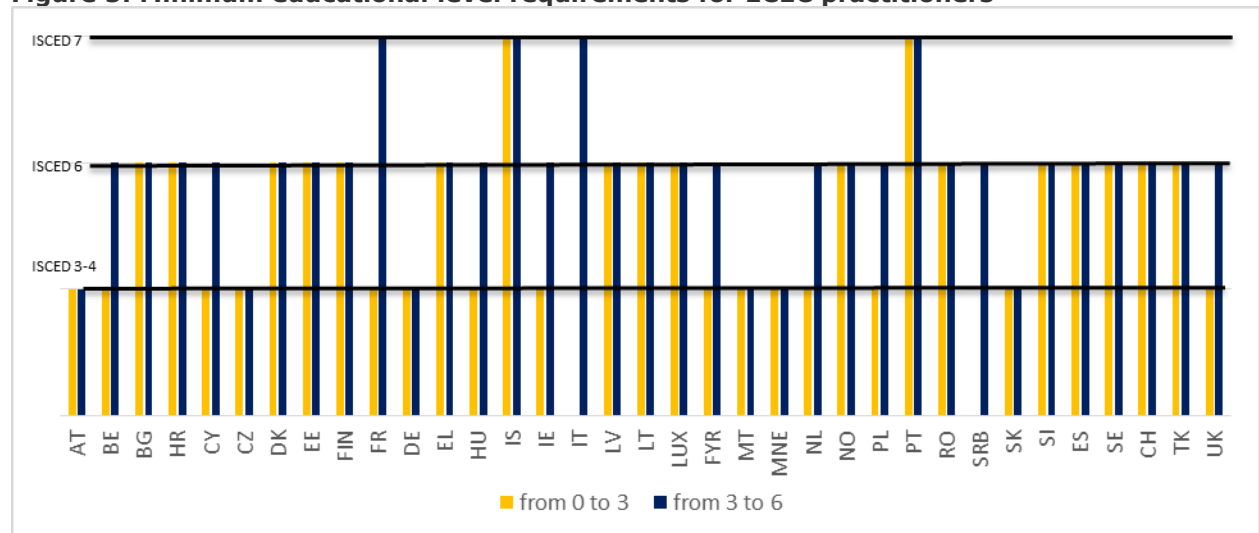
The available research is consistent in finding that competences of the educational and support staff are one of the most salient indicators of ECEC quality, especially in ensuring process quality. More precisely, it was indicated that **highly educated and specifically trained** ECEC practitioners have greater ability to build high-quality interactions with children and to help provide a secure, consistent, sensitive, stimulating and rewarding environment (Eurydice, 2009a). It was also proved that with emotionally supportive teachers, children who exhibit internalising or externalising behaviour are no longer at risk for developing less close or more conflict relationships with their teachers respectively (Buyse et al., 2008).

The minimum level of qualifications required from core ECEC practitioners⁹ in European countries varies from upper secondary or post-secondary diploma (ISCED 3-4) to Bachelor’s or even Master’s degree (ISCED 6-7) (see Figure 5). In 16 out of 35 European countries a tertiary education degree at bachelor level (ISCED 6) is required

⁹ The terms “(ECEC) professionals” and (ECEC) practitioners are used in the analysis interchangeably.

for all core ECEC professionals. The highest qualification requirements, i.e. Master's degree, for ECEC practitioners are in Iceland and Portugal. In Austria, Czech Republic, Germany, Malta, Montenegro and Slovakia ECEC practitioners are educated at upper secondary or non-tertiary post-secondary level (ISCED 3 and 4). In 11 countries educational level requirements for ECEC professionals are higher for working with older children (i.e. aged 3–6 years).

Figure 5: Minimum educational level requirements for ECEC practitioners¹⁰



Source PPMI (based on policy mapping reports).

Notes: ISCED 3-4 –upper secondary or post-secondary non tertiary education; ISCED 6 – Bachelor's degree; ISCED 7 – Master's degree.

However, case study analysis revealed that the formal qualification requirements for ECEC professionals are not always followed in practice, e.g. in Austria and Croatia it is possible to recruit an ECEC practitioner before they obtain the required qualification. This may consequently influence the quality of interactions in the ECEC setting and means that the educator might not have enough practical training, or have passed the required exam, which could reveal gaps in their knowledge. Educators who feel insecure or inept could have difficulties in managing discipline and bonding with children because children can sense the frustration or stress of the educator and perceive the whole environment and process as stressful. Austria reported that officially, all pre-primary laws demand one trained ECEC educator per group (as group leader). However, if there are no trained practitioners available on the labour market, then exceptions in recruitment can be made. In such cases educators' assistants with some years of experience are recruited. If such person is not found, then teachers, psychologists or representatives of other professions may get permission to work in an ECEC institution. As there is a lack of qualified ECEC educators, this situation arises quite often.

¹⁰ This figure presents qualifications requirements for ECEC professionals that work in group day care and school, not family day carers. In most countries the qualification requirements for family day carers are lower or non-existent. The age division presented in the legend of the graph is generalised. Some countries have different age divisions related to the ECEC practitioner's qualification requirement, or ECEC services are provided for children with a different age range. For example, in Denmark, Norway and Slovenia ECEC includes children aged 0–5. In Sweden ECEC services are for children aged 1–6 (preschool is for children aged 1–5, while preschool class is for children aged 6). Thus, the graph provides qualification requirements for ECEC professionals for this age of children.

In Serbia an upper secondary diploma is required for ECEC practitioners working with children aged 6 months to 2 years, while for those working with 2–3-year-old children a Bachelor's degree is required.

In Italy qualification requirements for ECEC professionals depend on regional and local regulations.

In France ECEC practitioners working with 0–3-year-olds are required to have an upper secondary diploma, although there are also carers holding a Bachelor's degree working with children in the youngest age group.

The competences of an ECEC practitioner depend on the **initial and continuous training** they receive. Therefore quality in ECEC requires not only a competent and qualified practitioner, but also a developed system that sustains and feeds into the ongoing professionalization of staff in relation to changing societal needs (CoRe, 2011). The actual education content behind qualification titles can differ significantly within Europe or even one country itself. The Spanish case study revealed that initial training was very theoretical and not adjusted to educational practice (Sánchez, 2009). In Flanders (Belgium) it was acknowledged that initial training hardly prepared practitioners for work in this field. The Austrian report observed that initial training of ECEC practitioners at ISCED level 3 was inadequate to prepare practitioners for didactics and professional practice. The limitation is that there is lack of comparative analysis or evaluation of curriculum for training ECEC staff. Even when there are evidence-based recommendations for changes in initial education, it demands thorough revision of not only university programmes but also changes in attitudes, which can be a strong barrier. These barriers first mean changing direction from the idea that younger children (0-3) need care and older ones – education and implementing child-focused programmes. Learning about development helps adjust practice and ensure learning as a cooperative process at any stage.

Continuing professional development helps ECEC educators to improve their knowledge, upgrade their qualifications and develop additional professional skills in ECEC; it also gives confidence and allows their role as an educator to be reconceptualised (Bleach, 2013; Vonta, 2007). It was observed in case study reports that continuing professional development contributes to the quality of interactions and quality of daily practices in terms of meeting children's needs. All European countries have good structural provisions for professional development – training services are generally available and provided continuously and are considered as professional duty in most countries (Eurydice, 2014).

The participation of ECEC practitioners in CPD is encouraged through initiatives such as financing the continuous professional development, allocating funding to ECEC institutions, or directly reimbursing the expenses of individual teachers, giving paid or unpaid training leave for attendance at CPD activities and relating the participation in CPD with prospects for promotion (Eurydice, 2013b). However, in case studies some countries identified that successful participation in CPD does not always result in higher wages. For instance, in Austria ECEC carers/practitioners even after participation in highly specialised trainings (e.g. on gifted education, Montessori-pedagogy, etc.) did not receive a higher salary. Also, different case studies named several shortcomings related with the content of their national CPD systems. Lithuanian and Spanish qualitative insights show the need for less theoretical courses, which would be better tailored, to the needs of ECEC practitioners. Also, a wish to have more chances to participate in workshops and long-term training courses was expressed. Short-term-trainings do not necessarily have an impact on staff professionalism and quality of the educational process in ECEC (Suk Yoon et al. (2007). Research evidence suggests that the effectiveness of CPD interventions seems to largely depend on their responsiveness to practitioners' needs arising from their everyday work with children and families.

Adequate support for ECEC practitioners at the beginning of their career was also named as an important condition for the quality of educational processes in case studies. Focus group participants in Flanders noted that learning by practice and reflecting on this practice was crucial for student teachers and novice teachers. This implied that time to reflect with peer student teachers, mentors, docents, and colleagues was the key element of learning. In most teacher training programmes, student teachers could learn through practice during internships, however time to

reflect was often lacking. In Lithuania interviewees expressed the opinion that new educators lacked practical skills, because their internship was too short – only two months. There is a need to develop the notion of “reflective practitioner” as traits of the teacher/educator profession. CPD programmes should move from being *ad hoc* trainings to programmes that provide participants with tools to learn to reflect and further improve practice. Quality of practice cannot be improved only from the top-down i.e. by improving university programmes but practitioners should constantly question their work and contribute to positive changes.

The impact of other factors describing ECEC staff characteristics, i.e. **gender diversity in ECEC** on children’s outcomes needs to be analysed more precisely. Currently, there is broad acknowledgement that greater gender diversity in ECEC is beneficial for children to open their minds to new ideas, counter stereotypes, encourage respect for multi-cultural learning (OECD, 2006b). This brings us back to the question of representativeness, when diversity of children should be reflected in diversity of practitioners. As they grow children learn a lot by looking up to the adults that are significant in their lives. Research shows that infants can tell the difference between males and females as early as their first year and also make a connection with observed gender characteristics (Blakemore et al. 2009). Around 34 children really begin to work out for themselves what it means to be a boy or a girl. As they gradually test their theories through observation and imitation, many preschoolers begin adopting stereotypical behaviours. As children learn so much by modelling during this period it is important to give them both male and female models they can look up to and also to help break stereotypes i.e. minimise negative influence on stereotypes (e.g. a child is interested in a certain profession but it does not fit the gender-related image so they feel like it is wrong to be interested). Therefore European countries are encouraged to take policy initiatives to improve gender diversity (in most European countries nearly all ECEC staff working in direct contact with children are women; the share of male teachers in ECEC does not usually exceed 3%. The exceptions are Belgium, Denmark, Iceland, Montenegro, Norway, Portugal, Spain, Sweden, and Turkey In these countries, except Denmark where 15% of men are in teaching roles (Eurydice, 2014), the share of male workers in ECEC varies from 3% to 10%.

Case studies also express the view that high-qualification requirements for the core ECEC professionals are important, but not the only condition for high-quality ECEC. The overall competence level of the ECEC workforce is important, as everyone working in ECEC and who has direct contact with children might affect the child’s development. Although there is no hard evidence on how other ECEC staff members, except ECEC practitioners, affect a child’s development, some problematic aspects identified by case studies and related with ECEC assistants¹¹ and additional specialist support staff allows assuming their influence on children’s outcomes.

ECEC **assistants** constitute a large part of the ECEC workforce in many European countries and often are the first point of contact for the children and families (CoRe, 2011). Eurydice (2014a) noted that in almost half of European countries ECEC institutions may employ ECEC assistants to provide support to qualified education and care staff both in settings for younger and older children. Case studies conducted for this project, similar to CoRe (2011) and Eurydice (2014a) findings, identified that ECEC assistants, who have direct contact with children, had low-level qualifications. The minimum requirements for this position are typically low and might only include age, graduation from compulsory schooling or knowledge of the official national

¹¹ In this study ECEC assistants are understood as staff that supports the higher-qualified ECEC practitioners in working directly with the children and their families in ECEC (CoRe, 2011).

language. Consequently, insufficient qualification of ECEC assistants limits the quality of educational processes in ECEC and the positive impact of ECEC on the child's development, because they lack the necessary competences to provide qualified help to the educator, especially in educational activities. The Swedish report observed that an ECEC assistant's lack of higher education might hinder their participation in systemic quality work, especially when educational theory and research are used. Qualitative insights collected for the Lithuanian report showed that ECEC assistants often do not know how to behave properly with a child, how to talk to a child, how to read books and do other activities in the best way for a child. Also, assistants were found to have fewer opportunities to participate in team meetings, continuing professional development, collaborative planning and pedagogical documentation compared to core practitioners (CoRe, 2011). This reveals the importance of having a system which offers adequate opportunities for all ECEC staff to take part in developing their competences. Hiring qualified and diverse assistant staff is also crucial for representative ECEC systems. It is important that ECEC staff reflects the diversity of their children not only in terms of gender, but also culture and ethnicity, e.g. by employing assistants of Roma and immigrant/minority background.

Although the role of additional specialist support on quality ECEC is not extensively researched, the case studies paid attention to the importance of having enough **additional specialist support staff** in ECEC to meet children's needs properly.

In general, in almost all European countries regulations include provision for a range of professional specialists, e.g. psychologists, speech therapists, teachers specialised in therapeutic pedagogy, special education teachers, etc. to support ECEC staff. Educational psychologists and speech and language therapists are the most common specialist staff in ECEC. However, quite often they are hardly accessible due to heavy workloads. For example, in Croatia, the special support specialist to children ratio was 1:113 in 2012/13. The ECEC principal interviewed for the French case study noted that one educational psychologist had to support 25 institutions; consequently, they could not address all the children's needs on time. The Austrian report indicated that specialist support teams were not available to all ECEC practitioners in all institutions.

Lack of funding was named as one of the main factors limiting availability of specialist support staff in ECEC. In Lithuania, due to financial shortages, the ECEC institutions did not hire psychologists or speech therapists even though they had the necessary number of children for which such positions should be established. Also, often the size of the setting or the number of children with additional educational needs determines the availability of specialists. For example, in Lithuania, the presence of professional specialists depends on the number of children with special educational needs in an ECEC setting. An ECEC setting can employ one speech therapist if there are at least 25–30 children who need assistance (Eurydice, 2014b). However, the Lithuanian case study report indicated that due to lack of finances this happens quite rarely.

In most case study reports the need to have more specialist support staff is acknowledged. Most interviewees and focus group participants in different case studies agreed that a lack of specialist support staff in ECEC limits the process of educational quality as this makes it harder to address children's special education needs, individualise the curriculum properly and provide necessary help on time. However, it is not only the number of staff but also their quality that is critical, as well as coordinated work and shared responsibility between educators and support staff, as noted in the Belgian case study.¹²

¹² Some of the extra support specialists – such as the care coordinators – were not by definition educators; often they studied orthopedagogics or speech therapy. One of the pitfalls was that they used a deficit

ECEC staff to child ratio and group size

Lower professional-child ratio and smaller group size can facilitate safer environments for children, increasing the potential for frequent and meaningful interactions (Pianta et al. 2008; Bauchmüller et al., 2011). Case studies also stressed the importance of group size and children to teacher ratio on the quality of interactions.

The majority of countries have nationally established legal regulations/standards for group size and/or child-staff ratio, which often depends on child age (see Annex 4). Sometimes municipalities or regional authorities are responsible for establishing group size standards. For example, this is the case in Austria (though the law allows exceptions) and Latvia. Only Denmark, France, Latvia and Sweden neither regulate group size nor ratios.

Case studies showed that legally prescribed group size and/or legal regulations on practitioner to child ratio were not always implemented in practice. For example, in Lithuania 97,929 children enrolled in ECEC in 2011, while according to all hygienic norms, there were only 94,764 places for children in ECEC settings. This problem is more prevalent in larger Lithuanian cities, where due to the high demand for ECEC services and the shortage of ECEC places, the actual group size varies from 20 to 25. In Turkey the average number of children per teacher was 27.4 in 2009 (and well over the legal limit of 1:20). Qualitative insights of case study reports also show that large group sizes or inadequate ratios limit the educator's ability to individualise the curriculum, which would be highly beneficial for meeting the child's needs best. However, as research points out effective professional development schemes and tailored teacher training can enhance the quality of ECEC provision and children's learning despite lower staff-child ratios and bigger group sizes (Burchinal, Howes, & Kontos, 2002; Sheridan, 2011).

ECEC curriculum

A balanced and comprehensive curriculum which combines care and education is one of the most important characteristics of high-quality ECEC (OECD, 2004). Numerous researchers argue that a holistic and multipurpose curriculum with clear goals contributes to assurance that ECEC staff cover all children's critical learning and development areas and equip children with the knowledge and skills needed for primary school (UNESCO, 2004). The critical learning areas encompass literacy, numeracy, ICT, science, art and music, physical and health development, play and choice, self-determination and children's agency (OECD, 2012d). They can contribute to the child's cognitive development in terms of literacy and numeracy and specific and general knowledge; and to non-cognitive development in terms of motivation to learn, creativity, independence, self-confidence and initiative.

Other than actual content areas, the preschool curriculum has to have one overarching characteristic. It has to provide a framework for educational practice, grounded in research on how young children develop and learn and in what is known about effective early education. This means that the curriculum has to be simultaneously well designed in order to incorporate some axioms of development and have enough flexibility to allow individuality. It is proved that settings and activities that are designed to accommodate young children's different approaches to learning are successful in reducing disruptive and inattentive behaviour, such as fighting with peers

framework when dealing with children. Another pitfall was that teachers outsourced the "problems" to the specialist staff, instead of taking care of them themselves and feeling responsible for the children who are different. Thus it was suggested to increase ECEC practitioner's competences to work with children who are disadvantaged, from ethnic minority groups, have special needs, etc.

and unwillingness to respond to questions or cooperate in class (Phillips et al. 2000). These exact aspects of a good curriculum were confirmed in our case studies.

All European countries have either a nationally developed curriculum framework or at least guidelines on children's development, which is the responsibility of the ministries of education or ministries of welfare. However, the coverage of ECEC curriculum frameworks or guidelines differs (see Table 6 below). Quite often, especially in split systems, the curriculum is defined only for children in the older age group of ECEC.

Table 6: Coverage of ECEC curriculum frameworks or guidelines by age group

Countries that have a curriculum framework or guidelines that covers age 0 or one to compulsory schooling	Countries that have curriculum framework or guidelines only for children in the older age bracket of ECEC
Belgium*, Croatia, Denmark, Estonia, Finland, Germany, Hungary, Greece, Iceland, Ireland, Latvia, Lithuania, Malta, Norway, Romania, Slovenia, Spain, Sweden, Turkey, UK*	Austria, Bulgaria, Cyprus, Czech Republic, France, Italy, Liechtenstein, Luxembourg, Poland, Portugal, Slovakia, Switzerland

Source: Eurydice (2014).

Note: *Except for the Belgium German-speaking community and the UK Wales. Information for Netherlands and Macedonia was unavailable.

The national curriculum or curriculum frameworks usually elaborate ECEC key goals, including underlying concepts and values. On paper it seems that they also tend to focus on children's holistic development. The developmental goals described in curriculum frameworks in various European countries usually encompass children's physical, personal, social, emotional, language and communication development, understanding of the world, art, literacy, and math and health education. In almost all the case study countries, ECEC curricula address parental engagement. However, they do not specify what ways parents should be involved – this is left for the ECEC institutions to choose (see the section on process quality for more details. The importance of competent ECEC practitioners in individualising the curriculum was underlined in several case studies (see Box 7).

Box 7: The importance of competent ECEC practitioners in individualising the curriculum

In *Croatia* the attitudes and internal beliefs of ECEC practitioners can be highly important in individualising the curriculum. If practitioners are competent, creative and have an active approach to their work with children, they have no difficulty in implementing the curriculum and individualising it according to children's needs, even when the group consists of too many children.

The *Lithuanian* focus group participants concluded that greater individualisation of the ECEC programme required more human resources in ECEC, smaller groups, competent assistants and stronger involvement of special support staff in the educational process.

Source: case study reports.

ECEC institutions typically have autonomy to transform the national guidelines into daily practices. Based on the core curriculum, ECEC institutions develop their own concrete learning curriculum. The problem of vagueness in curriculum specification was referred to in focus groups organised as part of the Belgian and Croatian case studies. While in Lithuania the need to strengthen the competences of ECEC staff for the development of the preschool programmes was acknowledged. From 2005 every ECEC institution was allowed to develop their own curriculum to meet the needs of the local community. Practitioners were offered a creative and interpretative way of implementing the curriculum based on an evolutionary improvement of the content and methods of pedagogy and making the curriculum more individualised. The

national government only set criteria for preschool programmes and methodological recommendations on how to prepare the preschool pedagogical programme. However, due to the lack of knowledge and skills, quite often the programmes were simply copied and only some minor changes were made, which again leads us to the importance of tailored professional development schemes.

Insights collected during interviews and focus group discussions show that pre-primary education still remains more focused on teaching practices than on developing socio-emotional skills. The reason for this is the expectations of parents that in the pre-primary class the child must be prepared for reading, writing and counting. Therefore, there is pressure on ECEC practitioners to teach children cognitive skills, while the development of such skills as the child's ability to adapt, to make friends, to express their opinion, etc. is often disregarded.

Teaching and learning methods

The research on how particular teaching and learning methods contribute to the child's learning is scarce. There is only little evidence showing that interactive reading and guided play integrated into children's everyday interests successfully support the child's language learning (Stoep, 2008). Despite the absence of hard evidence, there is general agreement that the effectiveness of the teaching and learning process largely determines the quality of ECEC provision (Eurydice, 2009a). Most countries emphasise that practices should be child centred and recommend finding the right balance between adult-led and children-initiated activities as well as between group and individual activities (Eurydice, 2014b).

The case studies revealed that play is the most important activity in the ECEC settings. Through play children build their confidence, learn to explore, to think about problems, and relate to others, which in turn, determine a positive education experience. The Spanish national curriculum even described play as a "privileged instrument of educational intervention" (Ministry of Education and Science, 2008) and provided many types of play for each block of each pre-primary education cycle. The English case study noted that each area of learning and development has to be implemented through planned, purposeful play and through a mix of adult-led and child-initiated activities. However, there is still insufficient attention to this in daily activities in most countries. Mostly play is free and teachers take only a passive role by supervising children's security and maintaining order in ECEC institutions (see Box 8 below).

Box 8: ECEC practitioner's role in play

In *Austria* children play for approximately 80% of their time in ECEC services. As the Austrian framework curriculum is a play-based one, free play and guided play are considered crucial for a child's development. Free play and guided play or special activities (e.g. experiments, special activities for children in their last year of kindergarten or for children with special educational needs) may take place simultaneously as ECEC educators mostly interact with small groups of children. Guided play and related activities may take 1 to a maximum of 2 hours per child per day (10% to 20% of play time). The rest of non-play time is taken up with daily and care routines (e.g. meals, hygiene, sleeping). ECEC practitioners take an active role while children are playing; however the quality of interactions might be intensified. In *Croatian* ECEC institutions children spend most of the time playing, but role-play is used as an education tool only to a certain extent. Parents can sign up their children for education programmes in kindergarten (but they pay extra for these), for example English language, music or dancing classes. In *Lithuanian* pre-primary institutions, play is considered to be the main method of teaching and learning. [...] However, the interviews and focus groups revealed that play, especially role-play, is used as an education tool to a certain extent. Children mostly play individually and educators only take care of their safety and health.

Source: case study reports.

Furthermore, the Spanish and Swedish reports expressed concern that "schoolification" of ECEC might limit the ability to use play as a learning method (see Box 9 below). This balance is difficult for policymakers to address. On the one hand, the less disparity there is between practices in ECEC and primary, the easier are the transition experiences. On the other hand, incorporating too many academic or traditional methods of learning cannot be appropriate for young children. Establishing continuity and gradual transition depends very much on how integrated the system is and how aware educators and teachers are of appropriate methods.

Box 9: "Schoolification" as a barrier to the use of play as a learning method

In *Spain*, according to the surveys carried out by WAECE, pre-primary education teachers think that [...] children play less than teachers think they should. According to this source, the main problem is that the second cycle of pre-primary is completely dependent on the primary level of education. Although the curriculum does not state it, it is assumed that children have to be able to read and write at the beginning of primary school and, as a consequence, achieving full literacy skills becomes a goal that displaces other more lucid activities. Pre-primary education is becoming more and more a preparatory level for primary education. In *Swedish* preschool the social pedagogy tradition is still predominant but develops to a more school-oriented approach. There is concern that this might lead to a pedagogical practice that stresses teaching and adult controlled activities more than children's play and children's own initiatives.

Source: case study reports.

Play should allow the child to express itself and to explore its interests and potentials. Where the number of activities is limited or very rigid children may find it difficult to engage. Many preschool programmes like Montessori provide children with the freedom to choose the type of activity they want to engage in (group or individual). This does not mean that the child has absolutely no schedule and rules. Consistency in daily activities is also necessary as it creates habits. A fine balance between the group dynamic and rules that allow individual adjustments should help to create positive habits and behaviour, but should also allow the child freedom to choose interests that are not necessarily similar to the group. A child may also feel uncomfortable having to do something they feel they are not good at like singing, or reciting in front of a

crowd, but are very eager to share their drawings. That process of discovering and fostering talents serves firstly to develop identity and awareness of “what I am good at and interested in” and also in building self-confidence that every talent is equally valued. Such an approach helps to identify children’s strengths and weaknesses and fostering the former, which brings results and further learning in later education.

3.1.4. Process quality

Process quality in ECEC indicators pertain to the quality of a child’s daily experience and focus on the quality of interactions between various stakeholders, e.g. interactions between ECEC practitioners and parents, practitioners and children, and among practitioners themselves. To date, the process quality is mostly analysed through structural quality characteristics that influence interactions. While the quality of interactions and parental involvement are much less researched, their importance on quality of ECEC and children’s learning is highly acknowledged.

Parental engagement

Greater parental engagement in ECEC services is highly associated with high-quality ECEC. It is stated that parent’s engagement in children’s learning is one of the keys maximising the learning outcomes of children’s education process, because it positively affects the child’s holistic development and creates a stimulating home learning environment (Eurydice, 2009a; Sylva et al., 2004). Pinto et al. (2013) suggest that preschool quality may be an important moderator in the relationship between home environment quality and children’s latter language and early literacy skills, even when also considering the effect of children’s previous developmental level and maternal education. Children who play at home and whose parents understand the importance of play in development are likely to demonstrate pro-social and independent behaviour in the classroom. In addition, parent participation with their children in activities such as arts and crafts is associated with children’s literacy development (Fantuzzo & McWayne, 2002; Nord et al., 1999). This kind of positive feedback between family and ECEC can be considered as complementary learning. Complementary learning emphasises the linkages—such as those among home, early childhood setting, and school—that works toward consistent learning and developmental outcomes for children. Fantuzzo et al. (2004) showed that practices associated with responsibility for learning (e.g. providing a place for educational activities, asking a child about school, reading to them) are related to children’s motivation to learn, attention, task persistence, and receptive vocabulary and to fewer behaviour problems. Well-trained ECEC professionals could provide needed support to parents who are not sure how to organise a stimulating learning environment and child activities. In addition, greater parental involvement helps to establish better understanding of children by professionals; promotes appropriate pedagogical practices, attitudes and behaviours towards children among parents and the community, i.e. positively affects the home learning environment; provides parent/staff with information and referrals to other services; encourages parents and educators to work as a team, and helps to provide support for better parenting (see Annex 1).

Most often parental engagement is defined either as parent engagement in the life of a school or as parent engagement in support of the individual child at home and school (UNICEF, 2012b). However, as our analysis shows, the concept of parental involvement and its implementation is often vaguely defined and described in policy documents across Europe. In the current report we look at the two main types of parent participation in ECEC: 1) parent participation in ECEC governance; and 2)

partnerships between ECEC practitioners and parents in child educational processes (i.e. child-focused parental engagement).

In most European countries **parent** representatives **are involved in ECEC governance** through parents' boards, associations, committees, councils and other similar bodies. The case studies conducted for this report revealed that despite parental involvement in ECEC governance bodies, the influence of parents on the quality of ECEC processes remains small (see Box 10 below).

Box 10: The role of parents in ECEC governance

In *Croatia* parents can be involved in decision-making through the Parents' Council, although there is not always a council in every kindergarten and it is not required by legislation. However, where they exist, the influence of parents and their representatives in the Governing Council is small. [...] They can make suggestions for improving the conditions of and conditions in kindergarten in general (e.g. on the choice of activities with children or food or toys that the kindergarten buys). However, most of the decisions are still made by the principal.

In *Lithuania* a self-governance institution (Board) is mandatory in every ECEC institution. Formally the boards are quite powerful and can influence the processes in the ECEC institutions. However, in practice they have not become places where strategic decisions, activities and childcare issues are discussed between parents and staff, and where common decisions for further improvement of ECEC are made. The majority of institutional decisions are made by the principals, while decisions related to children's education are mostly made by educators. Meanwhile the boards mostly function as information platforms for parents to learn about the decisions made and to provide their formal approval.

In *Spain* parents participate in parent associations and can be elected to the School Board, the main governing institution of school centres. However, the pilot evaluation study carried out in 2007 revealed that almost half (48.6%) of parents of 5-year-olds only pay a membership fee and do not really participate.

Source: case study reports.

Child-focused parental engagement tends to be associated with particularly positive effects on developmental outcomes for children (Panteia, 2013). However, child-focused parental engagement is rather undeveloped in Europe. In one-third of European countries there is no central recommendation on support to parents. The initiative for parental engagement is mainly left up to ECEC institutions (Eurydice, 2014b). While in other countries ECEC settings are centrally recommended to organise information sessions, bilateral parent-teacher meetings and guidance on home learning (Eurydice, 2014b). These types of support are widely used in practice as well.

Systematic individual feedback on children's progress to parents is provided in most European countries. Formal meetings between ECEC professionals and parents, both individual and in a group as well as written reports about children's progress are the most widespread forms of parental engagement. The frequency of receiving such feedback varies from once a year to once a day. For example in Hungary most centres have parent meetings every two months, while in Cyprus parents are informed 2 times weekly. Nevertheless, most often ECEC institutions are required to inform parents on their children's progress once or twice per year. Feedback to parents is also provided through other communication measures. Information is left on blackboards in Austria, published on web pages, while some Croatian ECEC providers communicate with parents through online talks.

Box 11: Examples of child-focused parental engagement in European countries

In **Finland** there is a “parents’ corner”, where parents are invited to actively participate, when they enter the playground. In Lithuania parents are asked to take part in arranging day trips, summer holidays, visits to cultural, historic and educational institutions. While in **Spain and Portugal** parents are invited to take part in special events before Christmas, in parent teaching days or parent career days, when they are asked to tell about their jobs, etc. In **England** ECEC practitioners make home visits, organise stay and play sessions and workshops for parents. The latter are also organised in Croatia and Italy.

Source: case study reports.

However, case studies demonstrate that parental involvement in child-focused activities remained low. For example the Spanish report presented the results of a pilot evaluation study (2007) which showed that only one-third of families often or always participated in the activities in the ECEC classroom, while almost half (42.8%) never did this. Qualitative insights of the Lithuanian report noted that parents were not encouraged by the institutions to make an active contribution to the implementation of curricula. The Croatian report mentioned the lack of competences among ECEC practitioners to establish a dialogue with parents, to build an equal partnership, to cooperate and to involve them, to cope with diversity and to address the needs of families as the barriers to greater parental engagement.

Finally, the analysis identified various initiatives to involve disadvantaged parents in ECEC.

Box 12: Initiatives to involve disadvantaged parents into ECEC

In *Finland* material about the importance of the early years is translated into minority and immigrant languages. To reach the parents of migrants and facilitate their involvement in the education of their child *Italian* municipalities often provide cultural and linguistic mediators. In large cities in *Belgium* telephonic translation services are available to teachers who work with parents who speak a language other than the official one.

In *Spain* schools provide advice on child rearing, more flexible timetables for informing parents from disadvantaged groups and language interpreters, if needed. Spain conducts information campaigns targeted at immigrant parents encouraging them to enrol their children in pre-primary education, provides advice and guidelines to parents with children with special education needs.

In *Sweden* the National Agency has published a report with the ambition to reach immigrant parents. The report is translated into the most common languages and is used by the municipalities in their contacts with parents who do not have Swedish as their first language.

In *Austria* the projects “Mama lernt Deutsch” (“Mum learns German”) and “Griffbereit” are implemented. The first project offers language courses for women with an immigrant background in pre-primary twice a week, the second focuses on support for mothers of very young children and is integrated in the daily work of crèches. Both projects invite parents to play together with their children and to engage with other children and their parents. Activities are offered both in German and in different languages. Finally, the federal government offers brochures and letters for parents in different languages.

In *Germany* additional low-threshold services such as parent cafés, parent-child playgroups are organised. *Ireland* and *Latvia* provide parent education programmes, other educational and cultural activities.

France has “liaison parents” who act as intermediaries in assisting other parents, who have no experience of using ECEC services. Liaison parents help in creating trust and breaking stereotypes by sharing their positive experience.

Source: case study reports, policy mapping reports.

Quality of interactions

Existing research evidence shows that the quality of interactions between children and staff is particularly important in determining positive learning experiences for children (see Annex 1 for more details). Having one educator develop a strong relationship with a child when they begin to attend the setting provides a strong foundation for the child to build subsequent relationships (DEEWR, 2010). This makes transitions easier, because the child enters the new setting with more trust and throughout schooling accepts new teachers more easily. This kind of positive attitude can mean the difference between leaving school at the first sign of difficulties and looking for help from staff.

ECEC tends to be more effective where less authoritarian child-rearing beliefs are applied, i.e. where ECEC practitioners are emotionally supportive and responsive to the individual needs of children and take children's perspectives into account (Bratterud et al., 2012). Children learn much faster when practitioners respond to them in timely and meaningful ways, that is why responsive interaction is crucial for language skills (Roseberry et al. 2013). In high-quality ECEC, learning happens in interaction, where both child and adult can influence and control it. In this way the child comprehends that they are an active part in the learning and not just the recipient and learns that they should reflect on, question and evaluate every experience. Sharing ownership over the learning process can develop a sense of control over the environment in a child, and prevent the development of a passive attitude or learnt helplessness. These resilience traits are especially important when a child stumbles upon a difficulty in schooling, because they can determine whether a proactive action will be taken or whether the student will simply give up.

Supporting a child's curiosity and critical thinking equips them with tools to make grounded decisions. So it is more likely that in the presence of an attractive alternative to education like a job, the student will be able to clearly see the pros and cons and decide on the future. Besides the above-mentioned characteristics of high-quality interactions, the English case study listed the following practices shaping the quality of interactions: equal balance in initiation of activities between adult and children; practitioners' curriculum knowledge in the particular area being addressed; "sustained shared thinking", i.e. situations when an adult with one or more children work together to solve a problem or clarify a concept in a way that extends understanding; good practitioner knowledge and understanding of child development; supporting learning through challenging play, curriculum-focused activities and through adult instruction; encouragement of high levels of parental engagement in their children's learning; and behaviour policies in which staff support behaviour management through talk and reason.

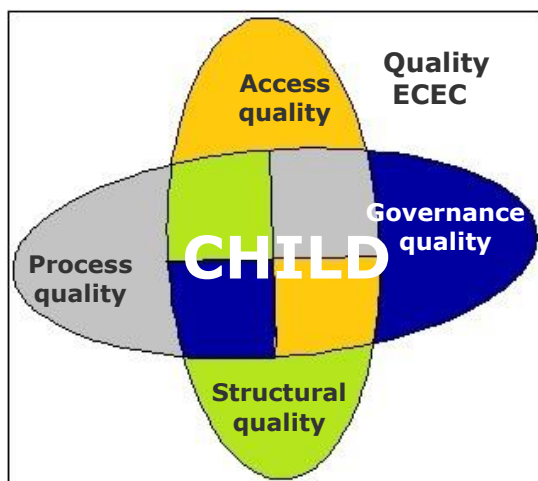
The French, Croatian and Lithuanian case studies concluded that group sizes that are too big made it difficult to address children's needs and ensure high-quality interactions. However, they noted that to an even greater extent the quality of interactions depended on the personality, education, abilities and motivation of practitioners. Some educators grounded the pedagogy mostly in discipline and obedience and understood their mission as mainly taking care of children instead of educating them; while others were able to internalise different attitudes and values, to build on children's advantages, to have positive and creative interactions, and to place the child at the centre of ECEC.

The aspect of equal opportunities is internally reflected in the quality of interactions, although that is not always emphasised. Educators need to exhibit the same high

expectations of all children and treat them equally. Gender or ethnic stereotypes often influence the quality of interactions, e.g. girls are encouraged more often to read or do artistic activities, boys to engage in some technical activities. Sometimes there are very few expectations of Roma children, because it is assumed that they won't be interested in obtaining higher educational levels. This imbalance in interactions originates from several sources: cultural stereotypes, teacher training that doesn't incorporate cultural sensitivity, prevalence of specific staff structure and poor representativeness of ECEC systems. Even when minority members are present they are usually employed as assistants, not well trained and with worse working conditions, which again teach children that being different necessarily means not being equal to everybody else.

To sum up, rich research evidence shows that high-quality ECEC can and does contribute to supporting the child's cognitive, linguistic, social and emotional development. Each quality dimension helps to address the different needs of children or to make the ECEC system flexible and responsive to such needs (see Figure 6 below). Therefore, a holistic approach towards the quality of ECEC quality is needed – and each quality dimension has to be strengthened and developed inter-dependently with the other.

Figure 6: Interplay of ECEC quality dimensions



Source: PPMI.

However, good-quality ECEC is only one key element of a well-balanced system that lays the important foundation for learning and the development of children's capabilities to exercise the opportunities the education system offers. The number and quality of these opportunities and further development of children's capabilities and competences depends on the quality of the next educational stages and the way transitions are organised between them.

3.2. Transitions from ECEC to primary school

When a child enters compulsory education it is considered to be "ready for school" i.e. that it has reached a certain level of cognitive, emotional and social maturity. We have discussed previously that ECEC does have strong influence on fundamental cognitive abilities. Also, quality ECEC has fostered the development of non-cognitive competences and the child's socialisation process has been influenced by people outside of the family circle. At this point the child should be able to build further competences on these foundations. Everything gained during this period can be

further strengthened or undermined, depending on how well the system accommodates the child. Transitions on all levels of education present challenge for the child and the system and play an important role in child's learning career.

Children experience the transition to school in different ways. Their self-concept is shifting from being a child in preschool to a pupil in school, which means they are expected to behave in a certain way and understand the classroom rules, to learn the language of the classroom and to form a relationship with the teacher. The more this is emphasised, the more stress the child faces. Just as every developmental stage keeps some aspects of previous ones and assimilates new cognitive and non-cognitive patterns (Piaget, 1953) the educational level should follow the continuity and gradual transition of a child. For instance, if ECEC was predominantly organised around play, some variations should be present in early primary education too. This pedagogical continuity should mirror developmental continuity, and give the child time to assimilate and adapt, rather than breaking down all previous patterns and building new ones.

How a child perceives new challenges is much more important than the evidence of its readiness as testified by a standardised test or evaluation. Research on gifted students shows that even those who are considered to have great potential due to their strong cognitive competences may underachieve because of a lack of self-confidence, trust and social skills. We have mentioned that early school leavers often express similar negative traits (Peček & Razdevšek-Pučko, 2003; Flere et al., 2009; Rovšek, 2013; Gečienė & Čiupailaitė, 2007; Zuoza, 2010; Grabažienė, 2010). This implies that cognitive resources are a requirement but not a guarantee for school success. Such problematic traits can be caused by negative experiences in every period of a child's life, but transition points can be especially challenging. It is important to be aware of this fragility in the early years and to provide adequate support for young children going through transition processes.

The management of the transition from ECEC to primary depends on the system design but also on a consensus of what is most problematic for children (e.g. change in the curriculum, environments, teachers' practices etc.).

Lack of coordination between education levels is often emphasised as a barrier to successful transition (Argos Gonzales, Munoz, & Zubizaretta, 2011; Amsing & Eilers, 2011). Also, a lack of feedback from primary education to ECEC, a lack of problem-ownership, a lack of an internal care structure, a lack of stimulating factors and lack of feedback from primary education to ECEC were named as barriers to smooth transition (Amsing & Eilers, 2011). Breit (2009) indicated **insufficient cooperation** and meetings between institutions as factors that can hinder successful transition. The researcher found that 45% of surveyed Austrian teachers reported insufficient cooperation between kindergartens and schools. Among the difficulties for both institutions to cooperate regularly are different laws, lack of time resources, too many kindergartens and schools that would have to cooperate (especially in urban areas) and data protection regulations. Professional cooperation between the teachers involved in preschool, preschool classes and school is crucial for the transition.

Different visions and expectations of what skills school beginners should have may also create difficulties for succeeding in the transition from preschool to primary school. It is important to follow the common pedagogical language across two levels – smothering differences in training and pedagogical expectations and supports (N. Hayes & O'Kane, 2006). For example, Table 7 shows the differences between expectations of kindergarten educators and primary school teachers in Austria on what skills and abilities a school beginner should possess.

Table 7: School beginner competence profile in Austria

Kindergarten teachers	Primary school teachers
1. Cognitive Abilities	1. Independence
2. Working and learning habits	2. Social behaviour
3. Motor skills	3. Motor skills
4. Independence	4. Cognitive Abilities
5. Social behaviour	5. Working and learning habits
6. Language abilities	6. Visual perception
7. Visual perception	7. Language abilities

Source: Holleler (2002).

Note: Skills are rated according to their importance (i.e., 1 refers to the most important, 7 refers to the least important).

Mapping in Table 8 demonstrates the distribution of European countries according to the criteria of whether there is systemic cooperation to smooth transition between ISCED 0 and 1. More than half of the researched countries are implementing specific initiatives to ensure cooperation between preschool and primary schools. Among the initiatives are joint teacher training, as in Austria, France and Romania; different information exchange activities (Cyprus, Denmark, Germany, Greece, Slovakia) and visits to kindergartens by primary school teachers, collegial meetings among preschool educators and primary teachers in Italy. There were several pilot projects in Ireland on professional exchange; however, the government still has not introduced any provisions for systematic cooperation. In Finland and Poland nursery school teachers provide information to primary school teachers on the profile of their graduates. Geographical proximity (France) or the situation when ECEC and primary school are located in the same building also fosters cooperation between institutions.

Table 8: Cooperation between ISCED 0 and ISCED 1

Cooperation foreseen ¹³	No or random cooperation foreseen
Austria, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Italy, Poland, Portugal, Romania, Slovenia, Spain, Sweden, UK, Croatia, Iceland, Norway, Montenegro, Slovakia	Belgium, Bulgaria, Czech Republic, Hungary*, Ireland*, Latvia, Lithuania*, Netherlands, Macedonia, Serbia, Luxembourg, Malta, Switzerland, Turkey

Source: PPMI.

Note: *there are random provisions at a local level on the initiative of teachers; but there is no national policy or guidelines.

¹³ E.g. Interactions/information exchange between ECEC educators/carers and primary school teachers (e.g. ISCED 0 and 1 teachers receive joint training; join open days in kindergarten and school; consistent curriculum, etc.).

Box 13: Transition practices in Europe: examples

In *Flanders*, transitions from childcare (0-2.5) to pre-primary education (2.5-6), from pre-primary education to primary education (6-12), and from home to primary education are not structurally defined. It depends on the individual childcare centre – on the individual school – on the individual teacher. Often there are big gaps between the different educational “stages” as observed in the case study. One of the possible solutions presented as good practice is ensuring better cooperation through shared spaces. ECEC and primary education are often on the same campus in order to stimulate educators, teachers and parents to cooperate.

In *Lithuania*, joint preschool and primary school projects, e.g. joint lessons, joint celebrations, teacher comes to introduce themselves to preschoolers. A preparatory preschool year (or two) is one of the often-practiced measures (e.g. Lithuania, Serbia, or Sweden). The programme is usually focused on development of the basic competences (as in Lithuania) or in some countries like Sweden, the ECEC educators and the schoolteachers work in teams. The pre-school year is important especially for children who have had no previous ECEC experience and helps them to prepare for school. In addition, a system of complex help is being developed in municipalities. It aims to assure effective support from at least two different specialists to children, who need special support, and help their parents strengthen parenthood and social skills. Complex help services encompass implementation of coordinated preschool and pre-primary education programmes, provision of social support, health and educational support for children and their parents.

In *Spain*, according to the case study report, the lack of cooperation between kindergartens and schools due to two totally different educational systems (ECEC vs. school system) is one of the major obstacles preventing continuity in important areas. Firstly, according to teachers, there is some unfavourable discontinuity between the level of requirements in ISCED 0 (Preschool Education) and ISCED 1 (Primary Education). In the former level, there is more flexibility and more room for playing, with some children experiencing anxiety and tiredness in their first steps in ISCED 1. Secondly, there are very few interventions aimed at easing the transition between ISCED 0 and ISCED 1.

Source: case study reports.

Another measure to smooth transitions is postponing enrolment in primary school. There are some instances where it is the educational institution that suggests that a child’s admission to school should be postponed, but no decision can be made without the consent of the parents. In other instances, the question of postponing admission only arises if requested by parents. In these cases a procedure must be followed in order to establish whether the request should be granted or refused. In Croatia and Serbia there are multi-professional commissions that assess the child and can give recommendation for postponement.

In most countries the non-admission of children to the first year of primary education suggests that they are being kept in the pre-primary class or centre they were already attending. In general, it is considered that one year is sufficient to allow the child to reach the appropriate level of development/maturity/readiness. In Czech Republic, as well as in Hungary, children may be kept at pre-primary for two additional years. Regulations allow children to start their compulsory education when they turn the age of 8 at the latest (Eurydice, 2011).

Research and practitioners’ experiences point out that children from disadvantaged backgrounds can have more difficulties in the transition period. Immigrant children facing a language gap, or those from deprived home environments who did not attend ECEC are most likely to have to struggle hard to catch up with their peers when starting compulsory schooling (e.g. UK). In early school leavers we also find similar

problems with reading literacy, communication and low academic self-concept. Ideally, these problems can be prevented during ECEC, which puts even more importance on widening participation and ensuring quality programmes. These characteristics may be caused by an inability to go along with the school programme and fit in with the class. Therefore, education for children coming straight from the home environment to school demands even more sensitivity and flexibility than for those who have had some previous experience of formal education. The UK case study gives a very vivid description of how building resilience can sometimes happen when a stressful situation is well handled by staff. New entrants may arrive “nervous and wary” and nevertheless become confident, accessing the facilities, exploring and adjusting to and learning from other children. Children learned to be independent and confident in their learning, even when they arrived with what was described as “learned helplessness”. This kind of new-found self-confidence can be a strong protective factor, since we find quite the opposite traits in early school leavers.

A positive transition to and start at school has been identified as a factor neutralising social and economic disadvantage and in promoting pupil’s resilience (A. Hayes, 2011). Children who have a positive start to school are likely to perceive school as an important place, to have a positive attitude to learning and positive expectations of their abilities to succeed at school (Dockett & Perry, 2007; Fabian & Dunlop, 2006; Margetts, 2007; Peters, 2010). Successful transition is significant for children’s emotional well-being and to their cognitive development. Transition may also support early integration of groups from different backgrounds, thereby becoming a necessary element of inclusion. Positive transitions may minimise negative consequences of change such as school phobia, functional illiteracy, drop-out rates, etc., therefore, neutralising the negative effects of unequal opportunities at the entrance to compulsory education (Vrinioti, Einarsdottir, & Broström, 2010).

Nolan et al. (2009) summarised the important outcomes of positive transition experience (see Table 9):

Table 9: Potential outcomes of transition from ECEC to school

Outcomes of positive transition experience
<ul style="list-style-type: none"> ▪ Children feel safe, secure and supported in the school environment. ▪ Children display social and emotional resilience in the school environment. ▪ Children feel a sense of belonging to the school community. ▪ Children have positive relationships with educators and other children. ▪ Children feel positive about themselves as learners. ▪ Children display dispositions for learning. ▪ Families have access to information related to the transition to school tailored to suit the family. ▪ Families are involved with the school. ▪ Relationships between families and the school are respectful, reciprocal and responsive. ▪ Educators are prepared and confident that they can plan appropriately for children starting school.

Source: Nolan, A., Hamm, C., McCartin, J., Hunt., Scott, C., and Barty, K., *Outcomes and Indicators of a Positive Start to School: Report prepared by Victoria University for the Department of Education and Early Childhood Development*. Melbourne: Victoria University, 2009.

All these outcomes positively affect the further development and performance of a child and contribute to the development of the child’s resiliency (Niesel & Griebel, 2005). In terms of system characteristics, successful transitions are usually more cost-effective and likely to reduce the necessity of later compensatory educational support policies (Fabian & Dunlop, 2006). Therefore, good transitions would ensure

the continuity of children's development by reflecting structural, professional, curriculum and pedagogical continuity and continuity with home and community.

3.3. Quality of primary and secondary education

In previous sections we have discussed the impact of ECEC on child development and what quality aspects a good ECEC system has to develop in order to produce those outcomes. The effectiveness of early childhood programmes can only be objectively assessed by taking into account the whole life course of a child and context. A child's development and its capacity are part of the equation where crucial variables are also family, school settings and practices through which competencies are recognised and fostered. Only the combination of these factors determines how much of early investment will be sustained later on. Research shows and case studies imply that even the best resourced, high-quality early childhood programme is unlikely to deliver long-term positive outcomes for children if they progress to poorly resourced primary schools, where they are taught in large classes by inadequately trained teachers, and where grade repetition is widely practiced. Also, as recent research on brain development in adolescence indicates, the areas of the brain related to behaviour and emotion regulation continue to develop through early adulthood, meaning that self-control and mature decision-making capacities are yet to be fully developed in the senior school years (Patton & Viner, 2007). An efficient education system has to build upon and utilise investment made in previous stages, from class to class and level to level.

Schools are expected to be places of important experience like learning, deep understanding, motivation, creativity, respect, values, but also places of development of the self-concept (self-regulation, self-efficacy, self-esteem and self-description/attribution). All stakeholders from all 10 case study countries agreed that quality education in primary and secondary schools is crucial for children's smooth learning career. For this reason we will discuss in more detail which aspects of compulsory education quality can turn possibilities into capabilities and children's positive outcomes, and which ones can discourage and disengage pupils. For the purposes of this study, this section focuses on the parts of the educational process that were identified through case studies as major factors that foster or hinder child's development and that are most like to have direct influence on a child's decision to stay in school.

3.3.1. System design

Education system design factors may influence pupils' performance and participation indirectly, by shaping the school environment and pedagogical practices (e.g. through the level of autonomy the school possesses). However, certain system characteristics may have direct impact on children's learning progress and possibility to practice their capabilities (e.g. ability tracking). These factors, even though remote from pupils' day-to-day experiences may cause the pupil to feel unmotivated, insecure, dissociated or even put into a corner with their educational path.

School autonomy

The need for a system to have "adaptive" capacity relates to pupil capabilities. Capacity of the system to accommodate pupil needs makes it easier for pupils to adapt and find their way even when facing severe disadvantages arising from a wider context. Every school is a little cell with its own micro system functioning within the boundaries of the education system. It accommodates a large cohort of different

pupils and has to align education system demands (i.e. standards, goals) with the pupil's characteristics and needs. There is a positive correlation between higher degrees of school autonomy in certain aspects and average pupil performance in mathematics according to the PISA 2012 results. Other research identified areas of school autonomy that relate to school quality: degree to which schools themselves decide on budget allocation; support structures available at school (mentors, bilingual teaching assistants and school-home mediators); the required level of parental involvement; interaction with peers; and teacher-pupil relationships, reviewing the curriculum to ensure its sensitivity and appropriateness (Ekins, 2010). Pupils in schools with more freedom to adjust their practice and use of human and material resources can benefit from more adequate support and timely reaction to their challenges.

When schools exercise more autonomy, they are more likely to recruit suitable teachers. Around half of European countries provide discretion for their schools in recruiting their teachers (see Table 10).

Table 10: Autonomy of schools in hiring teachers

Schools are free to select teachers	Teachers are assigned to schools by the municipality or central government
Belgium, Czech Republic, Denmark, Estonia, Hungary, Ireland, Latvia, Netherlands Poland, Slovakia, Slovenia, Sweden, UK, Montenegro, Serbia, Switzerland	Austria, Bulgaria, Croatia, Cyprus, Finland, France, Germany, Greece, Italy, Lithuania, Luxembourg, Malta, Portugal, Romania, Spain, Iceland, Norway, Macedonia, Turkey

Source: PPMI (based on policy mapping reports).

Autonomy in adjusting the curriculum also shows relation to pupil success. PISA 2012 shows that school systems that allow schools to define and elaborate their curricula and assessments tend to perform better than systems that do not grant such autonomy, even after accounting for countries' national income (OECD, 2013b). See Table 11 below for the distribution of European countries according to flexibility in curriculum adjustment.

Table 11: Autonomy of schools in adjustment of curriculum

Schools have limited autonomy in curriculum adjustment to the local needs	Schools have considerable autonomy in curriculum adjustment to the local needs
Bulgaria, Croatia, Cyprus, France, Germany, Greece, Hungary, Ireland, Latvia, Lithuania, Portugal, Malta, Romania, Slovakia, Slovenia, Macedonia, Serbia, Turkey,	Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, Italy, Luxembourg, Netherlands, Poland, Spain, Sweden, UK, Norway, Montenegro, Switzerland

Source: PPMI (based on policy mapping reports).

However, it must be remembered that autonomy goes together with accountability. Accountability of a school refers to taking responsibility for the outcomes of education and involves collecting and sharing data, providing feedback, and making decisions based on the evidence received. Data from PISA 2012 shows that in systems where the greater share of schools post achievement data publicly, there is a positive relationship between school autonomy in resource allocation and pupil performance. Also, flexibility in curriculum adaptation and teaching methods has to be supported by a common standards framework providing guidance. The degree of positive effect of school autonomy is also affected by the quality of cooperation between teachers and managing staff (OECD, 2013b).

Monitoring

There is widespread awareness of the need for transparency and accountability within the education system (UNESCO, 2011). Achieving and maintaining balance is a matter of control, and control is possible only if the system is fully aware of its parts. A systemic and clear monitoring framework and mechanisms can give a clear picture of the adjustments that need to be made due to the changing environment. Educational policy can be out dated and holding back progress in the course of only a few generations. By keeping track of changes in a pupil's achievement, motivation, attainment and attitudes many problems can be predicted and prevented (Akkerman, 2011; OECD, 2012c). Data is usually collected through external and internal school evaluation (quality assurance) complemented with data collection on the national level (usually by statistical office). Monitoring should not only have the purpose of system maintenance but also be the "watchful eye" over pupils and teachers. External and internal evaluation of school and national testing of pupils are all good data sources (Eurydice, 2009b).

Early warning systems

Early Warning Systems (EWS) refer to different methods and routines aimed at identifying and responding to early signs of ESL. It can be part of a regular school monitoring system but also demands cooperation with other institutions like social welfare and health services. Many signs that a pupil is struggling are present everyday but go unnoticed. Therefore, there is a need for a constant pupil monitoring system that can detect early signs and prevent pupil failure in good time (see examples in the box below).

Box 14: Examples of early warning systems in European countries

Finland, which scores very high on PISA despite a fall in the 2012 ranking, has successfully introduced a system in which pupils are tested regularly so as to adjust learning to their specific needs (Sabel et al. 2010).

Umeå Municipality (*Sweden*) has developed an IT system that aims to capture pupils who for various reasons do not appear to be doing well. Unauthorised absence is monitored carefully and followed up by quick responses. Psychological and counselling staff has a prominent role in helping pupils complete their education. Their skills are highlighted by the head teachers interviewed as being crucial in giving pupils the right support and assistance.

In *Belgium, France, Luxembourg and Malta* there is an increased effort to ensure this kind of cooperation. Once distress signals are registered, there has to be a systemic support framework provided by schools in cooperation with the community. In *Estonia*, schools usually have "student assistance roundtables" which make decisions, together with parents and sometimes outside specialists on the support required by at risk pupils. The roundtables also monitor the effectiveness of the implemented measures and make suggestions for amendment(s), if necessary.

In *Austria, Italy and the Netherlands* existing pupil registration systems have been improved or new ones created to monitor pupil attendance better and steps have been taken to enforce compulsory school attendance to prevent unnoticed absences (Cedefop, 2010).

Source: PPMI (based on literature review and case study reports).

Of the 36 European countries covered by this study 23 do not employ any specific monitoring mechanism to track children's progress: this function is performed solely

by teachers and standardised testing at the end of particular grades (See Annex 5: Table 1).

Teacher qualifications requirements

Teachers are the main agents of children's learning at school and are a major factor for educational success as shown in many research reports analysed in the literature review.¹⁴ According to the social development theory, individual development takes place in the context of activities modelled or assisted by a more skilled person, e.g. teacher or more expert peer. The way they handle everyday challenges shapes a pupil's interpretation. Teachers who understand their subjects and understand strategies to reach all pupils are integral to keeping struggling students in school. It is important for teachers to have a sense of what kinds of tasks different pupils are able to tackle and constantly adjust the kind and amount of assistance provided as pupils develop. During the school year, and throughout our lives, more refined and more complex kinds of assistance are needed in order to overcome difficulties that can also be very complex and caused by factors which are not always easy to identify.

Initial teacher education

Teacher education, both initial and continuing, was seen as an important means of support for teachers working with diversity in the classroom (European Commission, 2013a). In almost all European countries, teachers at pre-primary and primary levels of education are trained under the concurrent model (professional component is provided at the same time as the general component). Like the challenges identified in ECEC teacher training, education of teachers for compulsory school lacks the child perspective. Most programmes are built around subject methods, basic pedagogy and psychology without real connection between the fields. The aim of teacher training is to educate teachers how to focus on the continuity of children's development, build from the existing basis (i.e. the foundations that were laid during previous education experience) and develop the child further, rather than to load pupils with everything considered standard for this educational level. If foundations are supersaturated, of inappropriate speed or impose too much of a learning burden on the pupil, the structure of knowledge will be fragile and short-term in the best case. Short-term thinking that is focused on subject units during one semester and within one subject closes many possible paths of broadening knowledge and creating lifelong ability to upgrade further.

Teachers interviewed for case studies stated that they feel that initial training is usually too theoretical and does not prepare them for everyday practice. The Finnish teacher preparation system is an interesting example of training high-quality professionals by maintaining a rigorous selection process (see Box 15).

¹⁴ EC, 2011; European Commission 2013; Eurydice, 2013, Eurofound, 2012; OECD, 2005a; Skolverket, 2009; Gruber, 2007; Eriksson, 2008; Fatyga et al., 2001; Mickovska, 2001; Kittl, Mayr, & Schiffer, 2006; Darling-Hammond & Youngs, 2002.

Box 15: Teacher education in Finland

In *Finland* with very high standards that must be met to enter teacher preparation programmes, universities admit only one out of every ten students who apply. Once an applicant makes it beyond this first screening round, they are then observed in a teaching-like activity and interviewed; only candidates with a clear aptitude for teaching in addition to strong academic performance are admitted (NCEE-Finland description).¹⁵ The content of education programmes for teachers in Finland is strongly research-based and includes a lot of pedagogical education. In addition, in general, it is highly advised for novice teachers to have strong mentoring support or good induction program (European Council, 2007; Instituto de la Juventud (INJUVE), 2007; Krek & Metljak, 2011). Teachers who feel competent will exhibit much less stress and be able to focus on the child, rather than on managing their own dilemmas, fears and frustrations.

Source: case study report (Finland).

In-service teacher training/CPD

Teachers constantly need to respond to changing pupils and environment. And this is a challenge for young teachers, fresh graduates and more experienced teachers. Continuous professional development is considered as a professional duty for teachers in 28 European countries or regions (Eurydice, 2012). However, still not all countries make the training mandatory (see Table 12 below).

Table 12: In-service teacher training in Europe

Training is mandatory and provided regularly and continuously	Training is not mandatory but provided regularly and there are incentives for teachers to participate
Austria, Belgium, Croatia, Cyprus, Czech Republic, Estonia, <i>Germany</i> , Hungary, Latvia, Luxembourg, Malta, Romania, <i>Switzerland</i> , Norway, Montenegro, Serbia	Bulgaria, Denmark, Finland, France, Greece, Ireland, Italy, Lithuania, Netherlands, Poland, Portugal, Slovenia, Spain, Sweden, the UK, Iceland, Macedonia, Turkey, Slovakia,

Source: PPMI.

Note: Compulsory nature of teacher training in Germany may vary across Länder. In Switzerland it may also differ across cantons.

The challenge is not only in availability of training, but in the quality of its content. Even with great participation of teachers, according to TALIS (European Commission/EACEA., 2014) in-service training systems have to be more efficient. Across countries, relatively few teachers participate in the kinds of professional development that they believe has the largest impact on their work, namely qualification programmes and individual and collaborative research (Faubert, 2012).

Working conditions

It is hard for pupils to walk the path of self-actualisation guided by someone who feels that they are in the wrong place in their own life. That is why it is important for teachers to have satisfying working conditions, so that they present good role model for pupils. This also can affect children's attitude to education. Education can be seen as something worthy of effort and investment because the teacher shows excitement about his work. Or if the teacher cannot wait to "get the lesson over", this can be seen as a slog or pure obligation, where both teacher and pupil just wait to be "saved by the bell". Teacher satisfaction with work is mainly influenced by salary, advancement options, appreciation of the teaching profession in the country and conditions of the

¹⁵ Available at <http://www.ncee.org/programs-affiliates/center-on-international-education-benchmarking/top-performing-countries/finland-overview/finland-teacher-and-principal-quality/> Accessed on 03.06.2014.

working contract (duration, % of classes, paid benefits, etc.). Loeb & Page (2000) estimate that raising teacher wages by 10% reduces high school drop-out rates by 3% to 4%.

Box 16: Teacher salaries in Europe

In the majority of countries, minimum basic teacher salaries in primary and general secondary education are lower than per capita GDP. The lowest rates can be observed in Latvia, Lithuania, Romania and Slovakia where the minimum primary teacher salary corresponds to less than 50% of national GDP per capita and the highest relative ratio between teachers' minimum salaries and GDP per capita is in Germany (141%), Spain (136%), Portugal (133%) and Turkey (150%). Career advancement followed by improvement in financial status can also incentivise and raise the deservedness and respect of the teaching profession. Primary school teachers in Czech Republic, Denmark, Latvia and Turkey only receive a salary increase of around 20% during their entire professional career.

Source: Eurydice (2013c).

Curriculum

Pupils have difficulty remaining engaged in content that seems distant and disconnected with their life. As much as possible, classroom activities related to the curriculum should develop a pupil's ability to learn, and apply knowledge, connecting subject content with real-world problems. Research shows that the curriculum should set high expectations for all, be linked to clear learning goals, and be connected to the next education (or professional) level in order to engage pupils. Pupils, for example, often complain of too many theoretical subjects and too much complicated vocational theory within vocational education and training (Rumberger & Lim, 2008). The biggest problems throughout schooling regarding curriculum according to our literature review are: a curriculum that is too rigid with not enough teacher autonomy;¹⁶ a curriculum that is too complex and boring¹⁷ or programmes based on memorising content.¹⁸ Many countries have introduced new courses, in order to make the curriculum more diverse, which focus on different learning and assessment styles, such as project work rather than examinations (European Commission, 2013c).

The curriculum should ideally develop subject knowledge and cross-curricular issues, such as key competences. As case studies and international research show, reading literacy for example is a very important competence since it impacts ability to adopt all other new skills and it should be addressed in different ways at all levels of education. Textbooks are usually found to be the main reading material in school but their attractiveness for children is debatable. To engage pupils sometimes it is better to go "off the list" and diversify readings so that pupils discover reading in their own terms. As not all pupils are able to read at the beginning of primary school, content-area teachers need to provide accessible materials for those who cannot (e.g. texts with varying degrees of difficulty). The curriculum should also focus on social, emotional, and behavioural competencies of children (for instance, multiple evidence-based programmes or infusing lessons and activities for developing self-discipline throughout the existing curriculum, e.g. in social studies, literacy, and health education (Baer, 2010).

Extra-curricular and out-of-school activities can also significantly reverse academic underachievement. Research shows that pupils were most likely to develop achievement-oriented behaviours when they were stimulated in class and given the

¹⁶ INJUVE, 2007; Krek & Metljak, 2011.

¹⁷ Häfeli & Schellenberg, 2009; Pavlović-Babić & Baucal, 2010; Center for Vocational Education, 2011.

¹⁸ Calero et al., 2012, 2007a, 2008, 2010; 2007b.

opportunity to pursue topics of interest to them (Reis & McCoach, 2000). All European countries tend to provide certain kinds of extra-curricular activities (e.g. homework classes, hobby clubs, sports and arts activities, etc.) (see Table 13). However, almost half of European states impose fees on parents for those activities, with only Ireland giving the possibility of a grant for disadvantaged parents. The other half tends to provide extra-curricular activities free of charge, financing them either from the school or municipal budget, or applying for different project grants as in Finland.

Table 13: Availability of extra-curricular activities in European schools

There are extracurricular activities available in schools and they are free of charge	There are extracurricular activities available in schools, but they are payable
Croatia, Cyprus, Denmark Estonia, Finland, Greece, Hungary, Latvia, Netherlands*, Poland, Portugal, Romania, Spain, Sweden, Norway, Macedonia, Montenegro, Slovakia, Slovenia and Turkey	Austria, Belgium, Bulgaria, Czech Republic, France, Germany, Ireland*, Lithuania, Luxembourg*, UK, Switzerland, Serbia and Malta*

Source: PPMI.

Notes: *In Ireland most activities are provided at the secondary level. Disadvantaged parents can be subsidised.

In the Netherlands, all the activities are organised by NGOs and funded by the school council.

In Malta these activities are organised by Foundation of Education Services: parents usually have to pay, but there are subsidies available for certain categories of families.

In Luxembourg municipalities issue a Plan for extra-curricular activities with schedule of events.

Note: in Italy there is no regulation on such activities and schools are free to decide themselves on what to do.

Ability tracking and streaming

Education pathways should be flexible and cater for all pupils but without lowering standards and expectations (European Commission, 2013; Eurydice, 2013a). Where freedom of choice is limited, the basic assumption of equity is under question because not all pupils can exercise their right to education equally. Systems not only have to accommodate large numbers of children with their own individualities, but children who also constantly change, grow and explore their environment. For example Sweden presents a good practice when it comes to opening multiple paths and helping pupils so they do not just drop out but find a matching programme. In Kalmar and Ljungby, for example, the schools focus on flexible opportunities to switch programmes if pupils want to change course. The opportunities to change course have also been more generous in recent years because there have been fewer pupils and increased competition for pupils.

Some systems discriminate unintentionally certain sub-groups by forcing pupils to follow clearly defined paths without room for exploration or schools that group pupils based on their ability within classes. This approach can reinforce existing social and economic inequalities, as socio-economically disadvantaged pupils tend to be disproportionately grouped into lower tracks (Oakes, 2005). Data from Ireland (Smyth et al. 2013) shows that the percentage of early school leavers is the largest and achievement is the lowest in lower ability classes. The reason for this is the limited access to high-level subjects and teachers' attitudes. Teachers expect very little of pupils and therefore demand minimum or nothing (e.g. no homework) and pupils feel labelled as less able and possibly adopt this perception as self-concept.

According to available data we classified 36 European countries according to the age when first ability tracking takes place (see Table 14). Six education systems examined – Austria, Belgium, Germany, Luxembourg, Liechtenstein and the Netherlands –

conduct **early ability tracking and streaming**, which often results in the segregation of migrants. For example, in Germany vulnerable children are three times more likely than their native peers to go to a lower secondary school (*Hauptschule*) due to the ability tracking that happens at the age of 10. Twenty countries from the sample practice use **mid-tracking and streaming** (between the age of 13 and 16). In most such cases, the first tracking happens at the age of 15, although in Bulgaria, Croatia, Hungary, Italy, and Lithuania pupils are tracked at the age of 14; in Serbia at the age of 14 years and 6 months and in Turkey at the age of 13 years and 6 months. Nine of the examined countries are cases of **late tracking and streaming**, where the first selection happens at the age of 16.

Table 14: Ability tracking and streaming in Europe

Early ability tracking and streaming countries	Mid-tracking and streaming countries	Late tracking and streaming countries
Austria, Belgium, Germany, Luxembourg, Netherlands, Liechtenstein	Bulgaria, Croatia, Cyprus, Czech Republic, France, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Portugal, Romania, Slovakia, Slovenia, Switzerland, Macedonia, Montenegro, Serbia, Turkey	Denmark, Estonia, Finland, Malta, Poland, Spain, the UK, Iceland, Norway

Source: Eurydice (2012/2013).

Tracking and streaming especially in the early years shows correlation with ESL because the groups that are highly represented among early school leavers are the same as those mostly jeopardised by early tracking (INCLUD-ED, 2009; OECD, 2007).

When an educational system does not provide suitable trajectories for a significant group of pupils, this can be described as a lack of balance in the system, both with regard to efficiency and from the point of view of equity. Upper secondary education is the pivot between a basic educational foundation and a move into advanced study or employment. This is the point when “things become real” and decisions made related to the programme or path can determine the future in terms of possibilities for employment, satisfaction with chosen career and further educational options. As observed in the case studies, low school achievement is frequently associated with wrong choice of secondary school, which is not in accordance with a pupil’s desires or abilities. Because of that, pupils lose the motivation for school work and learning, and are more often absent from classes.

Efficiency is hampered by the fact that all previous investment in earlier stages is wasted if the students cannot continue further because they encounter a dead end. The unfortunate fact is that usually students who are disadvantaged in some way find themselves faced with limited or even no choices, which means that the system cannot be considered equitable.

Quality of VET programmes

The effectiveness and efficiency of the upper secondary system itself depends much more on a wider context than is the case for primary or general secondary education. VET offers a very wide range of fields and tends to attract pupils who prefer non-academic learning, therefore fostering different capabilities. Yet, even with this diversity many pupils give up school at this level. There is not enough data on how successful countries are in keeping VET pupils in school but in almost half of the EU-28 some reforms have been carried out in order to improve the systems. In Denmark and Sweden increasing the weight of practical and work-based training in relation to theoretical learning was one of the measures used to keep pupils engaged. Several

countries have introduced a bridge programme that embraces career management skills as one of their key features (Eurydice, 2013a). Another aspect of making VET more efficient is better cooperation with the world of work. Measures that have been taken by countries range from updating curricula to focus on learning-based outcomes, to including businesses and regional authorities in the planning and delivery of professional development for VET teachers (Eurydice, 2013a).

Career guidance and counselling

Between even well designed VET and pupils a gap can exist; this is created by lack of information, a pupil's inability to properly assess their abilities and interests or opportunities within the programme or choices made on the basis of "less resistance". For example, in Sweden only 29% of pupils who switch programmes achieve the final grade within three years, according to a study conducted by the Swedish National Agency for Education. Schools with a high proportion of pupils who complete their education have a high proportion of pupils who follow the course they chose initially. Studies in Sweden also show that pupils' expectations of guidance ahead of their upper secondary school choice are high, but after they have made their upper secondary school choice they have not received the expected help in recognising their own strengths and weakness and what they have an aptitude for. As a possible means to prevent this kind of problem, mentoring has become an increasingly popular method of providing personalised support (GHK Consulting Ltd, 2011). Another Interesting programme is being piloted in Spain. The programme is designed at the national level and implemented by some regions at some schools on a voluntary basis.

Box 17: Guidance in counselling practice in Spain

In *Spain*, The Plan for Reinforcement, Support and Guidance (the Spanish acronym is PROA) is an ambitious intervention, designed at national level and implemented by some regions at some schools on a voluntary basis. This intervention was targeted at disadvantaged pupils in primary and secondary education, aiming to reduce early school leaving. The PROA has 2 lines of action – mentoring and reinforcement and support. Although it is not an impact evaluation (as the authors themselves acknowledge), satisfaction of students, families and teachers is high and the perception by these agents is fairly positive.

Source: case study report (Spain).

3.3.2. School-level practices

School-level practices are those that directly influence children's experiences and well-being at school and therefore, are crucial for children's successful learning. The approach to teaching has been the focus of numerous research reports. Revised Bloom's taxonomy of different levels of knowledge includes creating, evaluating, analysing, applying, understanding, and remembering (Kratowohl, 2002). Of those pupils who come to a class, not all will listen attentively. Of those who listen, not all will remember and even fewer will actually understand. International tests show that only the minority will know how to apply in practice what they have learnt. Knowledge has to be created through interaction so that pupils develop a sense of ownership over it and use it.

Instruction

Instruction is one of the crucial parts of the teaching process. Two main forms of instructions are: direct instruction that is built around problems with clear, correct answers that can be learned quickly and pupil-centred instruction, which is associated

with the teacher facilitating pupils' own inquiry by allowing them time to find solutions to problems on their own before the teacher demonstrates how a problem is solved (OECD, 2014). Extensive classroom research has identified several aspects that should be developed in order to foster learning through interaction:

- Having teachers and pupils produce work together;
- Developing language and literacy across the curriculum;
- Making meaning: Connecting school to pupils' lives;
- Teaching complex thinking; and
- Teaching through guided conversation (Hammond, 2003).

We have stated earlier that early school leavers often lack problem-solving and analytical skills. These skills can be developed only through active learning, and not passive reception of knowledge. A child's innate curiosity fostered during ECEC, if service was of good quality, should be used for learning during compulsory school rather than tamed by using only direct instruction. If there is an indication that a child was not exposed to a stimulating environment or shows problems that can be traced back to bad social interaction, teachers should try to compensate by more stimulation and attention, rather than punishing the child for not being "ready, motivated or attentive".

Classroom assessment

Another important process is classroom assessment. *Formative assessment* has proven to be a more efficient way of evaluating the progress of pupils, which provides guidelines for improvement and valuable feedback, rather than simple grades (*summative assessment*) (OECD, 2008, 2013c). However, it is advisable that in the process both methods are used, since summative assessment summarises a pupil's achievement at a particular moment in time. What is important is that both forms of assessment must contain valuable feedback for pupils. Child development is led or rather supported by a "competent other" (e.g. parent, teacher, etc.) that guides the child to the zone of proximate development. Proper assessment feedback can determine much more than grades for pupils. Delivered properly it will enhance a pupil's capabilities, but if done inappropriately it can lead to low self-confidence, demotivation, and other problems. That is why schools are encouraged to actually use assessment for learning i.e. as a way to promote learning, not just evaluate it. Pupils can question their own learning as they try to make sense of their own ideas when they have proper feedback. One way to assist and assess pupils' learning is by structuring classroom discussions with purposeful questions and listening carefully to what pupils say as a means to guide the instructional conversation toward deeper understanding (Brown & Campione, 1996). Assessment is also an important warning mechanism (OECD, 2013c).

Relations and attitudes

Bureaucratic and hierarchical environments where roles are highly differentiated can create a depersonalised environment where pupils falling behind may not be recognised (Nield et al. 2008). A child spends a big part of the day in the classroom and if that experience is not pleasant for the child it is likely to develop resistance towards this environment. Early school leavers frequently show problems in accepting teachers and peers and being accepted by them as the case studies from Croatia, Italy, Lithuania and the UK show. Pupils who leave school in Lithuania very often state conflicts with teachers as one of the reasons for dropping out. In Ireland for example, studies have found that drop-out tends to be preceded by more negative relations with teachers (Byrne & Smyth, 2010). Many research studies have demonstrated that

pupils in cooperative learning environments perform significantly better than those in competitive or individualistic situations. A classroom climate of trust, where pupils have opportunities to share their views without fear of being wrong, is essential to these pupil-to-pupil interactions and interaction with teachers (Hammond, 2003).

Bullying and discrimination

Feeling of affiliation and belonging to the group is an important psychological aspect for building healthy relations and attitude towards the groups, but if bullying, discrimination, and exclusions happen within the peer group it is more likely that pupils will leave school (Traag, Lubbers, & van der Velden, 2012). Anti-discriminative and anti-bullying measures are mostly focused on specific issues. The Dutch Ministry of Education, Culture and Science has implemented anti-homophobia policies and practices at strategic and practical levels (Cedefop, 2010). In Belgium (French community), a draft decree aiming to set up cross-sector mechanisms for policies implemented at school, local and community level in favour of school retention, violence prevention, as well as education and guidance, is being prepared (Eurydice, 2013a) In Austria, young people themselves have been empowered to tackle bullying and violence in schools through a “peer mediation system” which has been put into place in Austrian schools with the help of guidelines prepared by the Austrian Ministry of Education.

Disciplinary practices

Positive school climate is a necessary condition for strong academic performance and participation among pupils (OECD, 2005; European Commission, 2010b). Schools with better average performance tend to have a more positive disciplinary climate, even after accounting for the socio-economic status and demographic background of pupils and schools and various other school characteristics (OECD, 2013b). Forcing pupils who are already not happy in the class to behave and obey, can sometimes only amplify their displeasure and resistance. Policymakers and schools have to be cautious in promoting authoritarian discipline alone to address a pupil’s misbehaviour, as this can worsen behavioural issues by adding to the cycle of negativity. Pupils whose teachers use positive management practices show fewer behaviour problems than pupils whose teachers use more punitive approaches to discipline (OECD, 2013b) and behavioural problems are often registered with pupils that leave school. Early school leavers are often labelled as having poor self-discipline; self-discipline is seen in socially and morally responsible behaviour that is motivated primarily by intrinsic factors, not solely by the anticipation of external rewards or fear of punishment. Nearly all children tend to excuse or justify moral transgressions by shifting the blame or the notorious “he started first” rationalisation. Such excuses should be tactfully confronted, and models of desired thinking, feeling, and acting should be highlighted but not forced. A better approach would encompass providing multiple opportunities for pupils to apply skills of social and moral problem-solving and responsible behaviour (Thomas & Grimes, 2008).

Parental engagement

A stimulating home learning environment and parental engagement are crucial for children’s smooth development process, since parents are the ones that are in constant contact with their children. The case study reports from Lithuania, Croatia, Finland and Sweden emphasise that parents influence on many levels, from choice of school to support in implementation of the educational plan. For parents from disadvantaged groups it is much harder to find a “common language” with schools. Even if they want to participate sometimes they do not know how. Parental

engagement in education mostly happens through two channels (OECD, 2010b): the support parents give to their children at home, such as discussing school activities and helping with homework, and in-school activities, such as taking part in parent-teacher meetings and other school activities (Nusche, 2009). For example, in Bulgaria motivational campaigns have been run to encourage Roma parents to enrol their children in mainstream schools outside the Roma neighbourhoods. In the Netherlands local authorities, especially within healthcare centres, undertake the implementation of projects and programmes to educate and inform parents about the importance of education. Information is disseminated to parents through healthcare workers. This has resulted in a broader understanding and awareness of the importance of education (GHK Consulting Ltd, 2011). Some countries choose to develop special training courses for parents (e.g. in Turkey, Ulug, 2010), while others are trying to give real power to parent councils and create new parent bodies (Serbia – Municipal parent councils projects OSFS/IPI). On the policy level, almost all the researched countries recognise the importance of parental engagement and home-school cooperation. However, the effectiveness of these mechanisms and actual implementation of national guidelines should be further researched.

The country data from GOETE study (Parreira do Amaral et al., 2013) shows that parents feel most encouraged to participate in decision-making at schools in Finland (2.85), followed by Slovenia and the Netherlands (both 2.66), while parents in France (2.40) feel least encouraged to do so. Furthermore, parents in the Netherlands mostly agree that school takes account of their decisions and concerns (2.84), followed by Finland (2.71) and Slovenia (2.68), while parents in France and Germany least agree (both 2.45).

3.3.3. Educational support

Individualised support and additional instruction

Early school leavers often testify that they left school because they did not have enough support. Most of the case study countries do guarantee different kinds of educational support (see Annex 5: Table 3) but sometimes that does not seem to be enough. It is important to ensure on-going assistance to underachieving pupils throughout the whole education process. Evidence shows that pupils at risk of failing the school year would benefit particularly from additional instruction and remedial support designed to accelerate the pace of learning. Remedial classes, individualised teaching and after-school support are intervention measures mentioned extensively in national literature as one of the most traditional approaches to assist underachievers (more details are provided in the literature review). Supplementary tuition and teaching assistants can help to tackle individual pupil problems before these are able to have a serious impact on their educational achievement and increase the risk of dropping out. Much effort is invested in helping pupils who struggle with reading or math, since these competences are highly correlated with education success.

Box 18: Additional measures to help underachieving pupils in Europe: examples

In *Finland*, the Ministry is funding a web-based service (www.LukiMat.fi) for learning difficulties in reading and mathematics. Aimed at educators, school personnel and parents, it provides information on reading and mathematical learning for children from the age of five to eight-years-old and on difficulties in mastering those skills. The service focuses on children's development of skills and includes games such as EKAPELI, which can be used by individuals and schools for early identification of children who have difficulty in reading and to help children improve their reading and writing skills.

In *Estonia* test results are analysed by an independent research group and are published annually. Specific approaches prescribed include the use of an individualised curriculum, supplementary classes, consultations, remedial groups (*parandusõpe*) and counselling parents (Eurydice, 2012).

In *Schleswig-Holstein, Germany* "Reading Empowers" ('Lesen macht stark') targeted some of the weakest performing 210 secondary schools in the region (Land), reaching 40,000 pupils between 2006 and 2010. The intervention was based on additional individual reading support underpinned by a school-wide reading development strategy and teacher training in early identification of reading difficulties across subjects (European Commission, 2012).

Source: PPMI (based on the literature review).

Our findings from Austria, Croatia, Lithuania and Spain testify that instruments that should guarantee individualised approach and support are often not provided due to limited resources in terms of number of staff (teachers and specialists), their time and financial resources. Teachers from our case studies are almost unanimous that it is not possible to provide a child with proper individualised support within a class of 30 pupils and that support provided out of regular classes sometimes presents a burden for them and for the children. On the other hand, pupils can face numerous difficulties. No teacher is ready to deal with them all, so having a proper support net for teachers is also observed as a crucial factor in helping children.

Teaching assistants and specialist support

Teaching assistant posts have been created recently in Bulgaria and the Czech Republic to support the integration of Roma pupils from segregated classes into mainstream education. Some countries provide a comprehensive range of professional specialists to support teachers, but in most countries educational psychologists are most represented because their presence is often regulated and compulsory. Countries that provide more comprehensive support are the Netherlands, Slovenia, Spain, the UK and Malta. Provision is organised either by counselling services and communities or the school can employ the required staff. Specialised content teachers (e.g. math) are available as support only in a few countries (German-speaking community of Belgium, Cyprus, Luxembourg, Malta, Poland, the United Kingdom, Iceland and Liechtenstein). Speech and language specialists are employed more often in pre-primary and primary schools than in secondary schools (Eurydice, 2013).

Counselling

Sometimes even when there is no obvious reason for a pupil to feel "in the wrong place" in class or to underachieve, they may still feel as if they are struggling. A good counsellor at the school or centre motivates learners, helps them to overcome problems, and proves effective in raising aspirations. The counselling system plays an essential role when used in early stages and can compensate for the lack of early education opportunities. Counselling can be done by a school psychologist or social pedagogue or certified counsellor. Different kinds of problems can be addressed –

from emotional ones to subject difficulties. When it comes to providing career guidance it is important that it goes beyond the simple provision of information and focuses on the individual in relation to their particular needs and circumstances. Guidance could be provided through interactive methods (mentoring, coaching, one-to-one guidance) and through online services (European Commission, 2013b). Development of out-of-school counselling services can help cater for more schools at the same cost, where there is no possibility to establish school development teams, or counselling services for teacher and pupils (Skrzypniak, 2011; Abrantes, 2009).

Support for migrant and minority pupils

Specific background factors demand different actions. All the countries analysed for this report and worldwide according to international research provide some kind of support for **migrant and minority** pupils. Provision of language classes or developing specific in-service training programmes for teachers is a common approach in helping migrants and minorities.

Box 19: Examples of additional support to migrant children

In *Finland*, language training for immigrants is to be increased at secondary and upper-secondary level as well as adult education centres, allowing for the improvement of their study prospects and their language skills. This is crucial for pupils whose language of instruction is not native and those who have none or limited knowledge of it. Participation in ECEC has proven to narrow the gap when children are enrolled at an early age, but for those who start only in primary education developing language and verbal skills can be determining factors.

In *Flanders*, special attention is given to this aspect. Language screening will be compulsory from September 2014. Each child entering the primary school should have a language-screening test within 30 days. This screening test is a self-evaluation tool, which provides teachers with an insight into a pupil's language level. Based on the language screening, the school will be obliged to provide extra support for pupils who underperform on the screening. Some schools decided to set up separate "language classes" – language immersion classes – for pupils who underperform. These immersion classes were however criticised during the focus groups. Second, there are compulsory Dutch language tests for children who did not attend Flemish pre-primary school for 220 half days. From the school year 2009–2010 onwards, children entering primary education at the usual age of 6 are required to have effectively attended pre-primary education in the Dutch language system during at least 220 half days in the previous school year.

Source: PPMI (based on the literature review).

3.3.4. Transitions and progressions in compulsory education

Transitions between educational levels

Transitions do not necessarily become easier with age. Everything we have mentioned as risk factors for children going from ECEC to primary can be applied to other transitions. Children experience stress related to any change of context during schooling, whether it is grade promotion or progress to the next educational level. Throughout the schooling many things have to fit together, so that transition points do not become gaps that children may fall through. Mackenzie et al., (2012) provide a classification of problematic aspects of transitions from primary to secondary education (see Table 15).

Table 15: Problems related to transitions

Problematic aspects of transitions	
Academic	Social
<ul style="list-style-type: none"> ▪ Difference between primary and secondary school environment, e.g. greater emphasis is being placed on evaluation of students; ▪ School is larger and more competitive; ▪ Ability is being more valued than effort; ▪ Need to adapt to different teacher expectations and teaching styles; ▪ Keeping up with the demands of the secondary school, with pressure to achieve arising from variety of sources (parents, teachers, peers) 	<ul style="list-style-type: none"> ▪ Social acceptance is perceived to be of great importance in adolescence; ▪ Formation of new social groups; ▪ Students are displaced from the top of the social hierarchy in primary school to the bottom in secondary school; ▪ Student's self-concept plunges in this period.

Source: Mackenzie et al. (2012).

Evidence from Germany shows that the rates of leavers vs. total participants are highest in the preparatory stages of the transfer/transition system: vocational preparatory year (42.9%), basic vocational training year (47.6%) and vocational preparatory schools (29.59%) (RESLEA, 2012). A longitudinal study on the transition from primary to secondary level in the UK found that 84% of young people feel prepared for entry to secondary school; the rest do not feel ready or feel worried or nervous about the change (Evangelou et al., 2008).

Ensuring cohesion and continuity is not a question of simply providing education inside one building for example through grades 1–8/9. In some countries teachers of lower levels have completely different education qualifications than subject teachers in later grades (e.g. Serbia). This makes the transition difficult even when school, class size and peer group remain the same. It is not just that the student now has to connect with 10–12 teachers instead of 1 or 2, but also that these teachers have a different background than the previous ones and therefore very likely a different approach.

The pace of school life does not give much time for students to adapt; examination and grading terms are pretty fixed everywhere. We find that the basic principle of equity of the education system can be compromised in this way. School practices calibrated on the basis of expectations from the “average” student may hinder the prospects of sub-groups that are on one or the other side of the average. Among the internal factors for pupils’ successful transition are the ability to adjust to a new school, the pupil’s sense of belonging and feeling of social connection (Hanewald 2013), dispositions to which start being developed during the early years. Mackenzie et al. (2012) suggest that some of the key non-cognitive characteristics for successful transition include having the appropriate knowledge and thinking skills, being conscientious and having the ability to work independently, a range of coping strategies and a positive perception of the change. These protective factors depend very much on previous experience. Thus, at points of transition we particularly see how important it is for the education system to function in an efficient way and lay foundations for learning level by level. The task of a well-balanced system is to link the inner potential of every individual child with opportunities for fulfilling it, i.e. closing the gap created by any particular disadvantage or gap that gifted children experience when being forced to comply with a programme that is far too easy or boring for them.

Progression between grades

One of the common measures schools turn to when a child does not perform as expected, whether when starting primary school, the next level or during grade progression in the same level of education, is for it to repeat a grade. The idea behind this measure is that it will give the child more time to handle content or become more

mature. This logic however does not work so well in practice. The academic benefits of grade retention are minimal and short-lived. Although some studies report that there may be slight gains in the retained year¹⁹ (see details in the full literature review in the Annex 1), this is partly because students are working on the same curriculum again. These gains tend to fade away in later years. Grade repetition has a clear long-term social and academic negative impact: it increases the likelihood of earning no, or only a lower secondary qualification (Jacob & Lefgren, 2009). Recognising the negative impact of grade retention, some countries try to reduce it by investing more in individualised learning and targeted learning support. In some countries tests are used to limit access to upper secondary education; failing these tests leaves pupils with limited options to continue education and training. Countries try to overcome these difficulties by also opening up educational pathways to pupils who have failed entry exams (European Commission, 2013). Across the OECD countries, an average of 12% of students reported that they had repeated a grade²⁰ at least once: 7% of students had repeated a grade in primary school, 6% of students had repeated a lower secondary grade, and 2% of students had repeated an upper secondary grade (OECD, 2013b). School systems that use grade repetition are extensively associated with poorer performance (OECD, 2010b), while those that use strategies to support each individual student tend to show higher performance. The most successful alternatives are focused on prevention to make repeating unnecessary, as done in Finland.

To sum up, children's educational achievement and aspirations are both indicators for their well-being today and their future life chances. They also reflect structural inequalities in the education system. The degree to which education systems succeed in fostering excellence and equity in learning outcomes varies significantly across countries. The significant differences in the performance of pupils from disadvantaged backgrounds – both within and across countries – suggest that there is much room for raising their performance. Re-orienting educational systems towards the goal of promoting equity, ensuring cohesion and diversity has been advanced as the necessary solution to pupil failure. Continuity of the process ensures efficiency, so that no learning outcome goes to waste for not being followed up later or supported in parallel. Education needs to function as a well-balanced system where the child is the small gear in the centre of which the movement of all others depends. Every child should find itself on a pathway in education with meaningful long-term prospects.

3.4. Continuity of education in Europe: initial exploration

Earlier we discussed elements of the education system pertinent to a child's ability to be engaged in lifelong learning by helping them to build necessary skills and providing opportunities to exercise these skills. Although it is crucial to ensure the quality of each educational element on its own, it is the sum of different elements and their relations that define whether the educational context fosters exercising capabilities or creates limitations. Success and continuity of the educational process need to be understood within a framework that includes thinking and acting within a certain vision or agreement, shared by all participants and reflected in national and school-level policies, which would contribute to cohesion of the education system as a whole. Within a cohesive education system it is easier to comply with demand for efficiency because education is seen as a final goal-oriented process, rather than a fragmented system where every component delivers specific outputs.

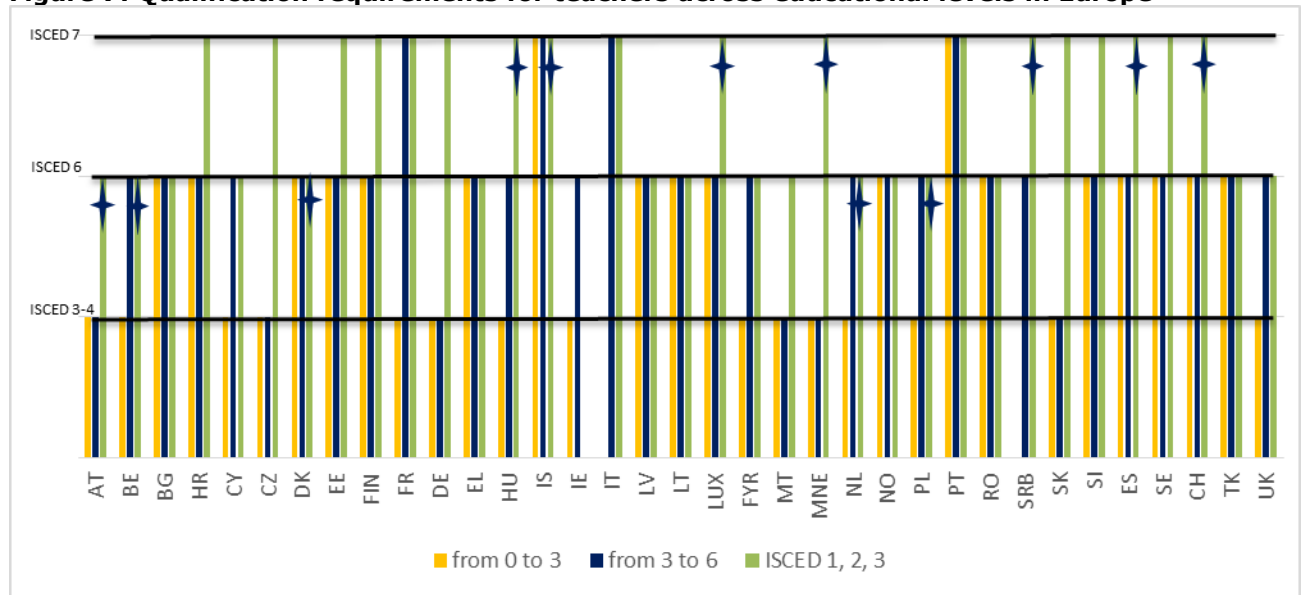
¹⁹ Alein & et al., 2009; OECD, 2012a; Balica, 2010; Skrzypniak, 2011; Fatyga, Tyszkiewicz, & Zieliński, 2001; Brophy, 2006.

²⁰ OECD indicator: Percentage of students reporting that they have repeated a grade at least once in primary, lower secondary or upper secondary school.

This section attempts to raise the question of how much of this shared vision of a child as a lifelong learner is present in national policies in Europe. As stated before, the lack of comparable data made it impossible to have definite conclusions at the moment. However, based on available data from policy mapping, literature review and case studies we can see some patterns and gaps that hamper continuity of education. This gives a good basis for further exploration.

When we talk about an integrated system in early childhood first of all we think **about pedagogical and professional continuity**. This important concept can be stretched further to general education. Ensuring the quality of programmes and staff from ISCED 0 to ISCED 6/7 closes the gaps in the system and thus, enhances its efficiency. It is important that initial teacher training and support provide education professionals with a united vision on children's learning as an uninterrupted process for which all of them share responsibility. However, the data shows that in half of the countries there is a significant difference in the level of education between the educators of the youngest children and teachers in primary and secondary classes (see Figure 7). In addition, training of practitioners for the younger children, especially those working with 0–3-year-olds, is usually focused on the child care aspect, while educational processes are often neglected. This seems to derive from the still popular traditional concept that the younger child primarily needs care rather than education. This means that children transferring from ECEC to primary school are likely to experience a significant shift in the teaching approach, if programmes for educators and teachers have different focus. Such a differentiation of the requirements at different educational levels raises the question of whether the child's development starting from zero throughout life is seen from the perspective of continuity or from the perspective of what is expected from the child and teacher for a specific education level standard. However, to get a definitive answer on the state of pedagogical continuity in Europe, the content of initial and continuous teacher training programmes and pedagogical practices at different levels should be explored in-depth.

Figure 7: Qualification requirements for teachers across educational levels in Europe²¹



Source: PPMI (based on policy mapping reports), Eurydice (2014).

Notes: ISCED 3-4 – upper secondary or post-secondary non tertiary education; ISCED 6 – Bachelor's degree; ISCED 7 – Master's degree.

Curriculum continuity is another aspect of education continuity and is the main tool for guiding educational process. The time frame of this study did not allow aligning ECEC and general education curricula in terms of content. However, the information on the development and administration of the curriculum collected in this study can give some initial directions on continuity or fragmentation of learning process in the country. Very few countries have developed integrated curricular approaches aimed at coherence of developmental goals and practices of ECEC with the aims of schools. Such curricular approach favours smooth transition from play-oriented and child-centred early year settings to more structured and systematic school settings. Half of the countries do not have a national curriculum for 0–3 age groups, which makes it difficult to ensure the quality of learning content and consistency with further educational levels. In combination with a lower-qualified workforce this can be a cause for large discrepancies in the experiences of younger and older children within institutions. A curriculum that acknowledges continuity of development should ideally follow the logic of developmental stages, always comprising developmental outcomes/goals from previous stages and building upon them. For example, France and the French community of Belgium have organised pre-primary and primary schools around three “cycles of learning” to bridge children’s learning experiences over the whole period of early schooling. The cycles of learning aim to reinforce the structural and pedagogical links between pre-primary and primary education and enable the teaching team to better adapt their teaching methods to the pace of development of every child.

²¹ Blue star indicates that the stated qualification is required only at two out of three levels. The differences are the following: In Austria, Belgium, Denmark, Netherlands and Poland teachers working at ISCED 3 level must have a Master's degree. In Hungary, Luxembourg, Spain and Switzerland a Master's degree is required for teachers working at ISCED 2 and ISCED 3 levels, while for teachers working at ISCED 1 level, a Bachelor's degree is sufficient. In Iceland teachers working at ISCED 1, 2 and 3 levels can either have a Bachelor's or Master's degree. Similarly in Serbia, where teachers working at ISCED 2 and 3 levels can either have a Bachelor's or Master's degree.

The third dimension of education continuity – **structural continuity** – refers to structural coherence of the transition process between educational levels. One possible way to ensure structural coherence and make transitions easier is close cooperation between educational levels and most importantly close cooperation between teachers working with children. The policy mapping conducted for this study disclosed that a certain level of cooperation is foreseen in 21 European countries, although in most of the cases such cooperation happens solely on the initiative of education professionals and it is not regulated at the national level. Usually this cooperation takes the form of voluntary meetings between teachers and educators or joint CPD activities. Cooperation between teachers of primary and secondary schools and between academic and vocational tracks at the moment of transitions is much rarer. Obviously, the comprehensiveness and content of this cooperation should be followed up in more detail to be able to make a definitive judgment about structural continuity in Europe. We can conclude that a) there is a benefit from these activities from the perspective of teachers; b) much more attention should be devoted to creating favourable conditions for cooperation to take place. It seems that currently this tool for ensuring continuity and smoothening transition is slightly underused or not recognised enough in the researched countries.

Education continuity is also reflected in continuity with home. Transition to school is seen as a family transition, and not just the child's move. Effective transition approaches, therefore, need to take families and the community into account. With the increasing heterogeneity of today's families parental involvement and partnership with ECEC and schools, it is crucial to adjust (pre-)school services to ethnic, cultural, linguistic and other forms of diversity (Neuman, 2000), which makes the education system representative. Moreover, active parent participation in the life of their children from the very early years may guarantee their participation in the education of their children at later stages, which stimulates a positive home learning environment and ensures continuity of children's learning. Based on the policy mapping data, recognition of the importance of parental involvement is present in policy documents across all educational levels. However, the content, regulation and implementation of cooperation with parents need further exploration before making definitive conclusions. It is promising that most countries see parents as important partners though this vision is not always implemented in practice, especially for younger children. In Austria, Estonia, Hungary, Malta, Sweden, UK, Serbia and Turkey participation of parents is not foreseen in governance structures, while Bulgaria, Czech Republic, France, Germany, Hungary, Ireland, Slovenia and Macedonia do not acknowledge the right of parents to be actively involved in the learning process.

In summary, all the four elements are important for ensuring continuity of education and therefore, the smooth learning of children. Our initial findings suggest that in most European countries education providers and policymakers still lack a comprehensive vision of continuous child development; the education system is functioning rather as a fragmented combination of different levels. This creates challenges for the system to ensure continuity for the average learner, and moreover, leaves aside children at risk of disadvantage. However, further in-depth exploration of each element of continuity, its content and practical implementation, is necessary to be able to accurately assess the state of balance and continuity of education systems in Europe and provide recommendations on their improvement and compensation of transition hurdles.

Chapter 4: Conclusions and recommendations

4.1. Key findings

Children experience education as a single journey across a variety of settings from those in their early years until they exit compulsory schooling. Different settings that children attend change with the years, but the experience of learning is continuous and is not interrupted. To date research has tended to focus mainly on particular segments of this journey (e.g. specific elements of the system, specific level/age, specific problems, and specific quality domains), failing to reveal the dynamic and continuous nature of the education system, which connects the experiences of a child starting from ECEC up to the transition to the labour market. In this study, by analysing a large body of literature, mapping national policies and conducting case studies, we tried to construct a picture of this journey, combining together various findings on the impacts of the earliest educational experiences on children's learning throughout compulsory schooling with a particular focus on early school leaving. These findings provided the basis for conclusions and recommendations on factors that may be particularly important to the child in successfully navigating their individual educational journey.

The early years (0–6) are crucial in children's development. There is a broad consensus that the experiences of very young children shape the foundations for their later life. The literature review and case studies bring rich evidence on the positive outcomes of ECEC participation for learners in the short and long term provided that high-quality ECEC is assured. High-quality ECEC attendance positively impacts all aspects of children's development. It enhances **basic cognitive skills** (literacy and numeracy skills) that facilitate further acquisition of domain-specific skills related to language (i.e. receptive language and expressive language), general knowledge and mathematics. Moreover, longitudinal research reveals the persistent effects of ECEC on cognitive development of children to the last years of compulsory school. Research evidence also supports the existence of a substantial positive relationship between the quality of ECEC and children's **non-cognitive development** (i.e. pro-social behaviour, self-regulation and learning dispositions). However, the long-lasting effects of ECEC on socio-emotional development are less straightforward and under researched. This can be explained by the relative novelty of the research on non-cognitive development of children and the need for more nuanced and sophisticated methods to measure these less tangible outcomes.

Our study highlights an interesting parallel between the learning outcomes for children developed in early years and those that are crucial for successful completion of compulsory education. Thus, the early cognitive abilities, which include early literacy, language and numeracy form the foundations for further development of relevant competencies at school and help avoid the formation of early learning gaps that would require remedial actions during the compulsory schooling. Similarly, pro-social behaviour, self-regulation and favourable learning dispositions are crucial foundations, which young children start developing in the ECEC institution and build upon further in school. These competences and abilities developed in the early years find their reflection in the profiles of well-achieving pupils who successfully complete secondary education. In other words, **in the profiles of pupils who are defined as early school leavers and underachievers we see the absence of the very dispositions and skills that are laid down in high-quality early childhood education and care settings.**

This key finding has led to the development of three core ideas that permeate this study. First, the **foundations laid in high-quality ECEC are necessary** for success in primary and secondary education. But they are not sufficient because, secondly, acquired **competences can become invisible**—and sterile as the potential drivers of further development—in an environment that fails to translate them into **capabilities**. In other words: staying on in education can only be fruitful for an individual pupil as long as the education system offers feasible **opportunities** to practise and further develop their competences. Thirdly, in order to ensure that every child is enabled to continue to develop its capabilities from the early years onwards and throughout compulsory education, it is not sufficient to assure the quality of one, several of even all of the components of the education system. The parts need to fit together, or the system will fail or at least work inefficiently. In other words, the **different components of an educational system need to be adequately balanced**.

4.2. Conclusions and recommendations at the national level

The extensive body of the material collected during this research project contains the beginning of an answer to the question of what a well-balanced good-quality education system actually is and allows outlining potential policy responses at the national level in an attempt to develop it. Our study has structured the notion of a **well-balanced education system** along four dimensions: efficiency, equity, cohesion, and representativeness.

4.2.1. Ensuring efficiency of education system

First of all, balance is reflected in an **efficiency dimension, which requires that no part of the system should be allowed to waste or counteract the results of other parts of the system**. In other words, investment in the quality of all levels of education is important, enabling every subsequent level of education to strengthen the positive outcomes on children's development acquired at the previous levels. Evidence from case studies confirms that poor quality primary or secondary education can offset the positive impact of early childhood education and care. On the other hand, the literature review showed that important learning dispositions start developing even before the age of 3, implying that good-quality ECEC is crucial for laying the foundations for children's successful learning afterwards.

However, what is evident from the previous studies is that investment in the education process in many European countries is far from being balanced. OECD Starting Strong reports (OECD, 2001, 2006a, 2012d) and Eurydice (2014) confirm that the ECEC sector remains strongly underfunded across Europe, with the notable exception of some Nordic countries. The lack of funding limits flexibility in meeting the needs of all children, ensuring the social and geographical outreach, and undermining key structural quality elements. This has further adverse effects on the quality of interactions and weakens the foundations for children's future learning. Recent debate among policymakers is the choice between **increasing the access** to and **investing in quality of ECEC and compulsory schooling**. From the policy mapping and case studies we know that a rapid increase of ECEC places does not necessarily equate to the quality of delivered ECEC. This observation can be well extended to compulsory schooling as focus groups revealed. If children, especially from vulnerable groups, after being enrolled in an education setting do not find opportunities to realise their potential in this setting, they are not likely to stay or perform well. Therefore, it is crucial to focus on the quality of the services while broadening access. OECD and CoRe findings confirm that **development of professional capacity** is crucial for the quality of the educational system to be able to respond effectively to children's needs. However, the quality varies across Europe and needs to be made a priority. Research

evidence points out that effective professional development schemes and tailored teacher training can enhance the quality of education provision and children's development despite low staff-child ratios and big group sizes. Attention to the learning process and interactions with children are the most crucial for children's success; this is also true for other levels of education, alongside with ECEC.

In addition, **transitions** from one major stage of an educational trajectory to the next are an important topic in the scientific literature and stand out in the present study as an important element of efficiency of the system. For many children crossing such boundaries are welcome occasions of promotion, but for some (especially children from disadvantaged backgrounds) they loom as a stumbling block. The nature of such boundaries is an important marker of the balance of an educational system. It is the joint responsibility of different educational levels to work towards streamlining the educational transitions for all children, smoothing children's experiences during these periods (e.g. cooperation and support to struggling children would be a more appropriate response than overly practiced but highly debatable grade retention). Establishing early warning systems can have preventive value for difficult transitions by providing necessary support at the first signs of distress by ensuring additional instruction designed to accelerate the pace of learning, putting pupils back on track on time.

In the light of previous findings and analysis developed in our study, we propose to explore a new perspective on learning, based on fostering capabilities. This allows focusing on the quality of education systems through the prism of children's learning experiences. The capability approach (Saito, 2003) alerts us that we cannot solely evaluate abilities/competences and inputs (education system elements); but we also must look at whether learners are able to use these abilities and competences at their own choice (i.e. education system provides opportunities for this). It grasps the interplay between the child and the context in which the child grows up. Capabilities are not just abilities/competences residing inside of a person, but also a freedom of choice or opportunities to exercise and develop these abilities/competences created by a combination of education, social and economic factors. A learner's competences/abilities are converted into capabilities as she/he is provided with more feasible opportunities/options to apply or develop them and has more freedom to choose among these options.

In that respect, knowledge about the system and about child development is put together into synergy in order to make the education system efficient, which is reflected in the recommendations provided below (see Table 16).

Table 16: Recommendations to enhance efficiency of the education system

Relevant conclusions	Recommendations
Ensuring continuity of institutional arrangements that reflect children's development	
<p>It is crucial to ensure smooth transition between educational levels, especially between ECEC and primary school. Negative transition experience between ECEC and primary school or primary and secondary schools may affect children's smooth progression in learning, regardless of their participation in the previous level. Even though the majority of countries recognise the importance of transition experiences, many of them do not pay specific attention to the transition mechanism, especially to transition experiences of children from disadvantaged background.</p>	<p>If investments are made to improve the quality of one educational level (e.g. ECEC), raising expectations about school readiness of incoming cohorts beyond what the improving ECEC can actually deliver must be guarded against. Otherwise, there is a risk that continuing improvement of standards in one educational level may result in sustained growth in the fraction of children who do not meet the rising expectations of the subsequent one. Therefore:</p> <ul style="list-style-type: none"> Standards of outcomes or developmental goals need to reflect the vision of what a child needs in order to learn throughout life. System reforms have to be harmonised, reform on one level impacts other levels.
Ensuring pedagogical and professional continuity starting from ECEC	
<p>Evidence from case studies leads to the conclusion that many European educational systems lack the balance of continuity (curricular and pedagogical) and comprehensive vision of the role of ECEC within the overall educational frame.</p>	<ul style="list-style-type: none"> Initiatives to encourage smooth transition should be developed more actively. Seminars, joint trainings, workshops for pre-primary and primary teachers should be organised to remove differences in teachers' expectations; The representatives of ECEC educators and primary teachers should be involved in curriculum development for both ECEC and primary schools. It is important to promote dialogue between ECEC educators and teachers at different levels of education, so that they understand the continuous development of children and inter-dependence of education quality at all levels.
Ensuring that curriculum is harmonised with child development across levels	
<p>Very few countries have developed integrated curricular approaches aimed at coherence of developmental goals and practices of ECEC with the aims of primary schools. Such curricular approach favours a smooth transition from play-oriented and child-centred early year settings to more structured and systematic school settings (e.g. cooperation between school and ECEC in elaborating the curriculum (as good practices from Finland and Denmark suggest) or organising pre-primary and primary schools around "cycles of learning" to bridge children's learning experiences over the whole period of early schooling (as in France).</p>	<ul style="list-style-type: none"> It is important to ensure curriculum continuity. The best way to do this is to promote and emphasise learning through play and projects that start from what young children are interested in, mixed-age activities, and organisation around themes with the focus on individual strengths of a child (rather than subjects) in the early years of primary school, rather than schoolifying ECEC. Ensuring that the curriculum is harmonised with child development across levels so that the abilities and competences acquired at the previous level are enhanced at the subsequent levels.
Insuring adequate support during transitions	
<p>Grade retention is not beneficial for improving learning outcomes. Proper support and early warning systems should be the foundation of a good education system, not simply an accessory. Repeating the same measures or methods previously undertaken is inefficient and unsuccessful.</p>	<ul style="list-style-type: none"> In addition to early warning systems, knowledge about difficulties and support measures should be embedded in teacher trainings. All relevant stakeholders should be able to know what the risk factors are; how to recognise when these factors start turning into problems and to revert this process by building resilience in children to overcome those difficulties. Grade retention should be avoided but also automatic promotion of pupils is not advisable. New approaches based on assessment of strengths and problems pupils faced should be developed that can support teachers and inform parents to guide these pupils to catch up and progress.

4.2.2. Making education systems equitable

Secondly, a well-balanced system is characterised by an **equity dimension which prescribes that the conditions for success of one sub-group are not allowed to damage the prospects of another sub-group**. When a cohort grows up, it inevitably becomes more and more heterogeneous, not only in what its members know and are able to do, but also in what they are interested in. The task of a well-balanced system is to link the inner potential of every individual child with opportunities for fulfilling it, i.e. closing the gap created by any particular disadvantage. Research evidence suggests that high-quality ECEC is the first step to counterbalance this disadvantage.

Reducing socio-economic segregation has been suggested as the most effective policy to improve equity in both the short and long term, far more effective than offering school choice. In general, school systems that cater to different needs of children by separating pupils into different institutions, grade levels and classes, known as stratification, have not succeeded in producing superior overall results, and in some cases they have lower-than-average and more inequitable performance (OECD, 2014). Other important existing recommendations refer to the fact that more freedom gives more options to act in the best needs of children. **Schools with more autonomy** tend to perform better than schools with less autonomy only if there are such accountability arrangements as setting clear objectives of what pupils are expected to learn and sharing information about outcomes, and/or when principals and teachers work together to manage schools (OECD, 2013)

However, case studies and focus groups conducted for this study highlighted that simple adjustment of policies and implementation of compensatory measures is not enough to ensure equity of the system. In order to cater equally for the needs of all children regardless of their background, education stakeholders need to understand the peculiarity of their needs and help ensure continuity of children's learning. Therefore, more attention should be given in teacher initial training and continuing professional development to connecting pedagogy and didactical approaches to children's learning experiences rather than to prescribed standards (see Table 17).

Table 17: Recommendations to promote equity of education systems

Relevant conclusions	Recommendations
Building professional capacity in all educational levels	
<ul style="list-style-type: none"> From case studies we learnt that the coordination between practitioners and other support staff (e.g. psychologists, medical staff) can be problematic and that this may mean that the responsibility for children with difficulties is simply passed on, away from teachers. From the case studies we have learned that there is a need in most countries for more vertical mobility for the assistants and the low qualified workers in ECEC. In a well-balanced education system, teachers think in terms of educational trajectories, not only in terms of the here-and-now and the next transition. 	<ul style="list-style-type: none"> Initial teacher training has to be focused on connecting child development and pedagogy. It is strongly recommended to increase the number of hours that teachers spend on learning about developmental and learning theories, multicultural education and to strengthen their role as reflective practitioners (e.g. more training on action research, self-evaluation etc.) Increase the percentage of actual professional practice during initial training with focus on applying different pedagogical practices, but also on skills for managing the socio-emotional development of children. It is important to reconsider the most effective form of continuous professional development. Research evidence suggests that CPD which has the greatest impact on changing pedagogical practice is based on making pedagogical practice visible and reflecting on it in order to change the practice (action research, pedagogical guidance, learning communities). One important aspect of effective CPD is that it needs to be focused on teachers' needs in light of what competences they need in order to create the best outcomes for a child within the system – rather than the child adapting to the system Leadership needs to be the focus of education policy. Proper training through continuous professional development should be provided for education leaders. A competent school leader should be a driving force in the school, rather than a sole supervisory administrative official. This requires pedagogical leadership, communication and administrative skills.
Ensuring child-centred pedagogical practices in ECEC and schools	
<p>From case studies we know that traditional teacher-centred approaches are still prevalent in schools and even in ECEC. In many of the countries we studied the ECEC teacher has a dominant role in the activities, and there is a lack of stimulating forms of deep learning, in which the children are deeply involved.</p>	<ul style="list-style-type: none"> Foster pupil-centred instruction wherever it is possible in relation to subject content. Foster open discussion and create an environment where pupils feel safe to express their opinions, make trials and errors. Use more conflict resolution and communication skills instead of disciplinary measure that rely on punishment in order to develop the same skills in pupils and moderate their behaviour. Provide multiple opportunities for pupils to apply skills of social and moral problem-solving and responsible behaviour. Apply methods that are goal oriented, not circumstances conditioned i.e. big class size and short instruction time cannot be an excuse of quality trade off. Small changes in organisations like different teaching forms (group work, projects etc.) can be used even in imperfect conditions.

4.2.3. Promoting cohesive education system

Thirdly, balance is reflected in a **cohesion dimension of the system, which stipulates that its stakeholders need to be aware of and feel responsible for the full breadth of the system**. Diversity—with the availability of many types of educational tracks, schools of different types, different teaching styles, and different pedagogical projects—can be a major asset of an educational system in that it provides flexibility, adaptability and opportunities for all. But it becomes a liability when it leads to fragmentation in the sense that parts of the system are no longer aware of—and, consequently, are not called on to care about—the educational system as a whole.

Previous recommendations made by Starting Strong II and III emphasise that practitioners need to have a certain level of autonomy, but have to be accountable so they develop a sense of ownership over outcomes and be intrinsically motivated to provide quality service. On the other hand, to become actors of change themselves it is important that all parts of the education system, from ECEC until the years of transition to labour market and across all parallel tracks, are united under the same vision of strengthening the foundations for lifelong learning in every child and providing continuity of children's development and learning. This also means reconceptualising VET (vocational education and training) systems by ensuring more permeability between general and vocational education and cooperation between VET and the labour market and providing more scaffolding and guidance in comparison to traditional ex-cathedra teaching.

Effective monitoring systems that are able to grasp children's experiences and ensure accountability of systems and strong and adequate preparedness of staff sharing the vision of continuous children's development starting from birth to enhance vertical and horizontal cooperation across levels can be important tools to promote system's cohesion (see Table 18).

Table 18: Recommendations to ensure cohesion of education systems

Relevant conclusions	Recommendations
Strengthening monitoring	
Monitoring should go beyond registering data and marking changes in trend without proper analysis. Many countries collect different data that are a) not collected with a clear purpose in mind b) not informative enough c) not unified and accessible (fragmented data bases).	<ul style="list-style-type: none"> Both process and outcomes should be monitored and relations between policy development and monitoring results should be clear to all participants (evidence-based policymaking); Monitoring frameworks should involve multiple sources and multiple methods of data collection to improve validity of findings; The monitoring system should also be assessed in terms of what was useful, what elements were not used, what policymakers were missing to be able to make grounded decisions and revised accordingly.
Promoting the vision of continuous children's development starting from birth	
There is still prevailing discourse in education that young children need to be taken care of, and that education starts when we can actually teach them some academic skills. However, research evidence reveals that both cognitive and socio-emotional development starts from birth and early care settings (0–3 years) are crucial. However, many countries do not develop curricula for children 0–3 or any programme with guidelines.	<ul style="list-style-type: none"> The same attention should be devoted to children from 0–6, the national curriculum or guidelines should reflect the vision of the child as a lifelong learner, from birth. The curriculum should be based on evidence about child development and this should inform educational practices. Curriculum should allow for adaptations that help struggling children play on their strengths and overcome difficulties but also that open opportunities for discovering and fostering talents; Strengthening initial and continuous teacher training to be focused on peculiarities of learning of different children and the role of teachers in supporting it.

4.2.4. Advocating for representative education systems

Finally, **representativeness** is another important dimension of a balanced system, which **requires that the diversity of its cohorts of pupils is mirrored by the diversity of its staff and policymakers**. Process quality has been highlighted as an important factor in the overall quality of ECEC and compulsory education, with the degree of formal and informal parental involvement as an important criterion. A unified and joint vision of what we need from the education system can emerge only if all voices are heard. Involvement of representatives of different populations is necessary to create education for all, and not education that the mainstream population represents. We find lack of diversity in terms of gender of educational staff (especially in ECEC), different expectations in terms of training of assistants coming from e.g. Roma community or other ethnic minority and not enough visibility for other disadvantaged groups. Children from disadvantaged groups are still underrepresented in education and their parents are almost never actively involved as confirmed by numerous OECD, OSI and UNESCO reports.

We know from focus groups that interaction between parents and schools is not facilitated by systematic differences between the social and cultural background of parents on the one side and teachers, school staff in general and policymakers on the other. To improve the representativeness of our education systems they should reflect better the diversity of its beneficiaries (see Table 19).

Table 19: Recommendations to promote representativeness of education systems in Europe

Relevant conclusions	Recommendations
Diversity of staff	
The current study confirms Starting Strong conclusions about ensuring standards for ECEC structural components – stronger practitioners' qualifications and continuous training, pedagogical support for teachers, gender diversity in ECEC. Moreover, these issues should be considered across the full educational spectrum. To date, gender diversity is not satisfied across the EU, particularly in ECEC and much of primary education. Also representatives of specific groups like ethnic minorities or people with disabilities are rarely found among staff.	<ul style="list-style-type: none"> ▪ An active information campaign should be launched by European institutions that would inform society and especially males, about the negative consequences of gender imbalance for children, etc. across the education system from ECEC through up to secondary school completion. ▪ Also, various incentives e.g. guaranteed workplace for males, and quotas for male workers (particularly in ECEC) might be established to attract males to choose such a career. ▪ Training and employing assistants who represent ethnic minorities or disadvantaged groups. Affirmative actions for employment, subsidised training and education of underrepresented groups should be considered to diversify the profiles of educators.
Empowering parents and children	
Children and parents are often just silent partners, consulted only in matters that are not substantial. We find in some countries that parents can affect curriculum and practice, but parents from disadvantaged backgrounds remain invisible and the needs of their children are not taken into account.	<ul style="list-style-type: none"> ▪ Giving a voice to children and parents equally by opening new communication platforms and methods for collaboration. ▪ Institutions of all levels need to make sure that decisions are made in consultation with all relevant stakeholders. ▪ Rights and responsibilities have to be made clear to all parents through education/training activities and providing regular, clear and understandable information. ▪ Creating learning communities in the educational institutions that are focused on effective pedagogy and ongoing reflection on practice.

4.3. Recommendations at European level

In line with ET 2020, it is important that the European Commission continues to promote ECEC as an integral part of the educational systems of Member States, with a crucial role in laying the foundations for further learning. But it is equally important for the European Commission to be aware that the long-term effectiveness – particularly in terms of educational outcomes at the end of secondary education – of improving the quality of ECEC, is conditional on the educational system as a whole being well balanced with regard to efficiency, equity, cohesion and representativeness.

The comparative analysis of education systems suggests that many of their problems are common across European borders. Furthermore, most problems are not new, which suggests that stronger European-level action might be needed to support and complement efforts taken at national, regional and local level so that innovations towards efficiency, equity, cohesion and representativeness of the education system can be stimulated. The wealth of diversity and experimentation in education policies across European countries creates enormous potential for mutual learning and improvement. However, individual governments face huge transaction costs if they want to collect and learn from the experiences of other countries for themselves. There is a strong economic case for European institutions stepping in more robustly and facilitating peer learning across the borders. This is particularly important in areas where most European countries face very similar issues.

The European Commission and DG Education and Culture in particular should consider reinforcing or introducing the following actions:

- 1) Promoting discussions across Member States on the common EU goals and vision for the continuity of child development, starting from ECEC and ending with transition to post-secondary education or the labour market.
- 2) Reinforcing networks and exchanges between stakeholders across the national borders on the importance of ECEC in laying and strengthening the foundations for further learning and interrelatedness of ECEC with subsequent levels of education. These exchanges can contribute to the reflection and learning of teachers, researchers and policymakers on how to improve the education system in their own country.
- 3) Reinforcing the pan-European research that feeds evidence into the European policy debate on how to develop ECEC sectors in good balance with other parts of the education systems, how to ensure better relevance of services to the needs of children, to improve efficiency and equity of ECEC and compulsory education provision.
- 4) Helping Member States develop well-balanced systems through European guidelines. The development of the European Quality Framework on ECEC (TWG ECEC) is an important first step. Taking into account the differences in national traditions and contexts, the Framework should embrace multiple solutions to developing efficient and equitable national ECEC systems that are well integrated with the next stages of education.
- 5) Document and disseminate good practice examples of policies and mechanisms ensuring continuity of the education process (starting from ECEC up to at least the end of upper-secondary schooling) and making them widely accessible to all European policymakers and practitioners.

4.4. Areas suggested for further research

As a result of extensive literature review it became evident that most of the reviewed research on the characteristics of the role of education systems in explaining learning outcomes for children focuses on the quantity and quality of educational inputs (e.g. structural quality elements which are easier to measure). The process of exactly how those inputs are transformed into outcomes is significantly less explored in educational research; although some beginnings can be found in brain and psychological literature. Since children's development and learning is not a static process and is constantly being affected by day-to-day experiences, interactions and practices, it is crucial to explore the dynamics of the education process and its essential elements. It would be particularly useful to explore further the following areas/aspects of the education process:

(1) Child-centred approach in ECEC and primary and secondary education

The literature provides varied evidence on the factors that are important for high-quality ECEC. The findings of evidence-based research mostly refer to structural quality while process quality characteristics and governance quality are less explored. The dynamic nature of ECEC and the quality of interactions potentially have a significant influence on the child's emotional and social development. However, we do not know what shapes the child's experiences and in what way: is it peer relations, interaction with educators, structured time or any other factors not evident from the existing research? More studies employing different methods e.g. case studies; quasi experimental or experimental research designs within the boundaries of ethical approach would be highly beneficial and would allow to further explore which particular elements of process quality promote or hinder the development of cognitive

and non-cognitive competencies. Also, if we reflect on ECEC and compulsory schooling in terms of development of capabilities, research on what is the best way to ensure opportunities for children to explore their potentials and exercise their abilities and competences would be of great use for practitioners and policymakers. Within a balanced system of education from ECEC through to school leaving – some of the findings from extensive ECEC research evidence are of significant value and importance to other levels of education and need to be recognised as such. In addition, more research across all levels of education around the importance of process and the more interactive dimensions of learning and teaching is needed.

The dynamic nature of education is also reflected in the ability of ECEC practitioners and schoolteachers to adjust to the individuality of each child. The limited empirical data so far provides only tentative support for the assumed link between teachers' training and competencies and, subsequently, to their positive effects on children's behaviour. Educators need to have a better knowledge of methods, be able to plan, implement, evaluate and further enhance their practice. Analysis of educators' self-evaluation should provide some conclusions about which of these skills educators lack. This would help in developing comprehensive and applied training programmes (instead of programmes confined to theory).

(2) Educational effectiveness research in ECEC

There is extensive literature on educational effectiveness in primary and secondary education comparing schools, classes and teachers with each other (in subtle ways, taking account of as many contextual factors as possible) and interpreting the differences in order to learn from them. However, educational effectiveness studies in the area of ECEC are very limited. Such studies would allow analysing the dynamics of ECEC, the day-to-day quality of individual ECEC providers, and the progress of children in specific environments or using specific pedagogies thus enhancing the understandings necessary for improving quality and effecting smooth transitions.

(3) Transitions as important steps shaping continuity of children's learning

There is an extensive body of literature on transitions at different levels in education. However, research into the role of diversity with regard to transitions is rather limited. The challenge for education systems is how to organise the links between different educational levels, schools, and grades so that they support transitions for all groups of children in the best possible way. This would mean that every child has an open path according to its potentials and abilities. We suggest that more research on transitions should be focused on successful guidance and counselling, identification of non-academic abilities and appropriateness of instruments for professional orientation that are currently used in schools. Also, research on the competences of teachers to recognise talents that are beyond typical academic skills could point out gaps in teacher education.

(4) Long-term children's trajectory from the perspective of children's abilities/competences, growth and development, rather than from the perspective of static inputs and resources

It is crucial to understand the reasons when identical factors are transformed into different outcomes for children. In all studies, children who come from poor, socially disadvantaged and/or low educational backgrounds, disadvantaged minorities or migrant families are at the greatest risk of ESL and exclusion at all stages of education. Some children on the other hand with the same risk factors show a degree of resilience. The way that these risk factors turn into reasons for failure or become

resilience factors should be further researched, so that the appropriate support measures could be properly designed and targeted.

There are many assumptions and opinions on the influence of the characteristics of education system design on pupil's performance at school; however, the research remains correlational rather than causal due to the limited longitudinal research in Europe and imperfect indicators in the dynamic aspects of children's development. It is not enough to just correlate outcomes and inputs. It is also important to take into consideration the day-to-day learning and teaching processes which underpin effective outcomes. This process is often taken into account when considering children's capabilities, i.e. freedom and opportunities within the education system to exercise and develop certain abilities/competences (Saito, 2003). This approach, known as the Capabilities Approach, has great potential for tracking the continuity of children's learning between ECEC and secondary school by looking at the dynamic nature of children's learning and environment, rather than focusing only on the static aspects of input elements. It may also help identify gaps in the current educational approach in Europe and adjust it towards equitable education for all, rather than focusing on the characteristics of children who do not fit the existing education system. There is a need to move research focus beyond inputs and outcomes to take into account the dynamic dimensions of education reflected in balance and continuity that impact daily on children and on their learning.

Bibliography

- Abrantes, P. (2009). Perder se e encontrar se à entrada da escola: transições e desigualdades na educação Básica (Getting lost or meeting up at school entrance: transitions and inequalities in basic education). *Sociologia, problemas e praticas*, 60, 33–52.
- Akkerman, Y. (2011). *Overcoming School Failure: Policies that Work, Background Report for the Netherlands*. Ministry of Education, Culture and Science, Den Haag.
- Alein, C., & et al. (2009). Quality of research design moderates effects of grade retention on achievement: A meta-analytic, multilevel analysis. *Educational Evaluation and Policy Analysis*, 31(4), 480–499.
- Altaras, A. (2006). *Giftedness and Underachievement*. Belgrade: Institute of Psychology, University of Belgrade.
- Altaras-Dimitrijević, A. (Ed.). (2012). *Giftedness- Views and Experiments*. Belgrade: Faculty of Philosophy.
- Amsing, M., & Eilers, E. (2011). *Een optimale overgang van de voorschoolse instelling naar de basisschool (An Optimal transition Between ECEC and ESCC01)*. KPC Groep. Retrieved from <http://www.google.rs/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCcQFjAA&url=http%3A%2F%2Fwww.kpcgroep.nl%2Fkpc-groep%2Foverheidsopdrachten%2Frend%2F~%2Fmedia%2FFiles%2FOverheid%2Fsopdrachten%2FOvergang-voorschoolse-instelling-naar-basisschool-onderzoeksrapport.ashx&ei=IKA2Uv7uEtHVsgaQsIDgCw&usg=AFQjCNGnDoa1eMbjCjeqk-7-z3orDWxCYQ&sig2=pZd8w0NTLK3eHuSArQUvLQ&bvm=bv.52164340,d.Yms&ad=rja>
- Andersen, D. (2005). *4 år efter grundskolen - 19 årige omval gogveje i ungdomsuddannelserne (4 years after elementary school - about 19 year olds' choice and roads in upper secondary education)*.
- Argos Gonzales, J., Munoz, P., & Zubizaretta, A. C. (2011). Metáforas de la transición: la relación entre la escuela infantil y la escuela primaria y la perspectiva de futuros docentes de educación infantil (Metaphors about the transition: the relationship between preschool and primary school and perspectives for future preschool teachers). *Educación XXI*, 14(1), 135–156.
- Armstrong, S., Buckley, S., Lonsdale, M., Milgate, G., & Kneebone, L. (2012). *Starting school: a strengths- based approach towards Aboriginal and Torres Strait Islander children* (p. 39). Retrieved from http://research.acer.edu.au/cgi/viewcontent.cgi?article=1027&context=indigenous_education

- Baer, G. G. (2010). *From school discipline to self-discipline*. New York: Guilford Press.
- Baker, J., Bridger, R., & Evans, K. (1998). Models of Underachievement Among Gifted Preadolescents: The Role of Personal, Family, and School factors. *Gifted Child Quarterly National Association for Gifted Children (NAGC)*, 42(1), 5–15.
- Baker-Henningham, H., & Lopez Boo, F. (2010). *Early Childhood Stimulation Interventions in Developing Countries: A Comprehensive Literature Review* (p. 71). Retrieved from <http://ftp.iza.org/dp5282.pdf>
- Balica, M. (2010). *Abandonul timpuriu si perspective pe piata muncii (Early dropout and perspectives on the labour market)*. Bucharest: DE STINŢE ALE EDUCAŢIEI Laboratorul „Politici educaſionale”. Retrieved from http://nou2.ise.ro/wp-content/uploads/2012/08/raport_abandon_timpuriu_final.pdf
- Bandura, A. (1977). *Social Learning Theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Barnett, S. (1996). *Lives in the balance: Age-27 benefit-cost analysis of the HighScope Perry Preschool Program*. HighScope Press.
- Bauchmüller, R., Gørtz, M., & Würtz Rasmussen, A. (2011). *Long-Run Benefits from Universal High –Quality Preschooling* (p. 33). Maastricht: Graduate School of Governance. Retrieved from <http://old-hha.asb.dk/nat/michael/asbiab11/WurtzRasmussen.pdf>
- Bennett, J. (2012). *ECEC for Children from Disadvantaged Backgrounds: Findings from a European Literature Review and Two Case Studies* (p. 61). Brussels: EC DGEAC. Retrieved from http://ec.europa.eu/education/more-information/doc/ecec/report_en.pdf
- Berlinski, S., Galiani, S., & Manacorda, M. (2008). Giving Children a Better Start: Preschool Attendance and School-age Profiles. *Journal of Public Economics*, 92(5-6), 1416–1440.
- Birghous, H. (2000). *School Choice and Social Justice*. Oxford: Oxford University Press.
- Black, S., Devereux, P., & Løken, K. (2010). *The Perils of Preschool? The Effect of Child Care on Academic Performance* (p. 31). Department of Economics Norwegian School of Economics. Retrieved from <http://www.sole-jole.org/11228.pdf>
- Blakemore, J. E., Berenbaum, S., & Liben, L. S. (2009). *Gender development*. New York: Taylor & Francis Group, Psychology Press.
- Bleach, J. (2013). Using action research to support quality early years practice. *European Early Childhood Education Research Journal*. 21(3): 370-379
- Breit, S. (2009). *Frühkindliche Sprachstandsfeststellung – Konzept und Ergebnisse der systematischen Beobachtung im Kindergarten (Assessment of early childhood*

language development status – concept and results of an systematical observation in kindergarten). Graz: Leykam.

- Brophy, J. (2006). *Grade Repetition* (p. 43). IIEP. Retrieved from <http://www.unesco.org/iiep/PDF/Edpol6.pdf>
- Broström, S. (2005). Transition Problems and Play as Transitory Activity. *Australian Journal of Early Childhood*, 30(3), 17–25.
- Brown, A. L., & Campione, J. C. (1996). Psychological learning theory and the design of innovative environments: On procedures, principles, and systems. In *Contributions of instructional innovation to understanding learning*. Hillsdale, NJ: Lawrence Erlbaum.
- Burchinal, M., Howes, C., & Kontos, S. (2002). Structural Predictors of Child-care Quality in Child-care Homes. *Early Childhood Research Quarterly*, 17(1), 87–105.
- Buyse, E., Verschueren, K., Doumen, S., Van Damme, J., & Maes, F. (2008). Classroom Problem Behavior and Teacher-child Relationships in Kindergarten: The Moderating Role of the Classroom Climate. *Journal of School Psychology*, 46, 367–391.
- Byrne, D., & Smyth, E. (2010). *NO WAY BACK? The Dynamics of Early School Leaving*. The Economic and Social Research Institute. Retrieved from http://eprints.nuim.ie/4333/1/DB_No_Way_Back.pdf
- Calero, J., & Escradibul, O. (2007). Evaluación de servicios educativos: el rendimiento en los centros públicos y privados medido en PISA-2003 (Evaluation of educational services: school achievement in public and private schools in PISA-2003). *Hacienda Pública Española*, 183(4), 33–36.
- Calero, J., Escradibul, O., & Choi, A. (2012). El fracaso escolar en la Europa Mediterránea a través de PISA-2009: radiografía de una realidad latente” (Academic Failure in Mediterranean Europe Through PISA-2009: Portrait of a Latent Reality). *Revista Española de Educación Comparada*, 19, 69–104.
- Calero, J., Escradibul, O., Mediavila, M., & Waisgrais, S. (2007). *Desigualdades socioeconómicas en el sistema educativo español (Socio-economic inequalities in the Spanish education system)* (p. 194). Madrid: Ministerio de Educación y Ciencia. Retrieved from http://www.oei.es/pdf2/desigualdades_socioeduc_espana.pdf
- Calero, J., Quiroga, Á., Escradibul, O., & Mediavila, M. (2008). *Sociedad desigual, ¿educación desigual? Sobre las desigualdades en el sistema educativo español (Unequal society, ¿unequal education? On inequalities in the Spanish educational system)* (p. 137). Madrid: Ministerio de Educación, Política Social y Deporte. Retrieved from

http://www.uned.es/125028/images/Bibliografia/Calero_y_otros_Sociedad_Desigual_educacion_desigual.pdf

- Calero, J., Waisgrais, S., & Choi, A. (2010). Determinantes del riesgo de fracaso escolar en España: una aproximación a través de un análisis logístico multinivel aplicado a PISA-2006 (Determinants of the school failure risk in Spain: a multilevel logistic model approach to PISA-2006). *Revista de Educación Extraordinary*, 2010, 225–256.
- Calvert, G. (2012). Quality Assurance means a Head Start for Australia, Putting Children First. *Newsletter of the National Childcare Accreditation Council*.
- Cedefop. (2010). *Guiding at-risk youth through learning to work Lessons from across Europe*. Retrieved from http://www.cedefop.europa.eu/EN/Files/5503_en.pdf
- Cedefop. (2013). *Briefing note - Keeping young people in (vocational) education: what works?* Thessaloniki: Cedefop.
- Center for Vocational Education. (2011). *Studija o sprječavanju ranog napuštanja obrazovanja bez stečene kvalifikacije u srednjim stručnim školama u Crnoj Gori (Study on early school leaving in secondary education in Montenegro)* (p. 64). Podgorica: Center for Vocational Education. Retrieved from <http://www.erisee.org/downloads/2013/2/Study%20on%20early%20leaving%20in%20secondary%20education%202011%20ME.pdf>
- Cleveland, G., & Krashinsky, M. (2002). *Financing ECEC services in OECD countries* (p. 96). University of Toronto at Scarborough. Retrieved from <http://www.oecd.org/edu/school/28123665.pdf>
- Cook, G., & Cook, L. (2009). *Child Development Principles and Theories*. Pearson.
- CoRe. (2011). *Competences Requirements in Early Childhood Education and care* (Study for the European Commission DG Education and Culture). Retrieved from <http://www.vbjk.be/files/CoRe%20Final%20Report%202011.pdf>
- Council of the European Union. (2011). *Council Recommendation on Policies to Reduce Early School Leaving*.
- Da Silva, L., & Wise, S. (2006). Parent Perspectives on Childcare Quality among a Culturally Diverse Sample. *Australian Journal of Early Childhood*, 31(3), 6–14.
- Darling-Hammond, L., & Youngs, P. (2002). Defining “Highly Qualified Teachers”: What Does “Scientifically-Based Research” Actually Tell Us? *Educational Researcher*, 31(9), 13–25.
- Datta Gupta, N., & Simonsen, M. (2010). Non-cognitive Child Outcomes and Universal High Quality Child Care. *Journal of Public Economics*, 92(1-2), 30–43.
- DCSF. (2007). *Mythbusters: Addressing Gender and Achievement: Myths and Realities*. DCSF. Retrieved from

<http://webarchive.nationalarchives.gov.uk/20130401151715/https://www.education.gov.uk/publications/eOrderingDownload/00599-2009BKT-EN.pdf>

- DEEWR. (2010). *Educators Belonging, Being and Becoming: Educators' Guide to the Early Years Learning Framework for Australia*. Australian Government Department of Education, Employment and Workplace.
- Diamond, A. (2014). Want to optimize executive functions and academic outcomes? Simple, just nourish the human spirit. *Minnesota Symposium on Child Psychology*, 37.
- Dockett, S., & Perry, B. (2007). *Transitions to School: Perceptions, Expectations, Experiences*. UNSW Press.
- Dockett, S., Perry, B., & Kearney, E. (2010). *School readiness: what does it mean for Indigenous children, families, schools and communities?* (p. 35). Australian Institute of Health and Welfare. Retrieved from <http://www.aihw.gov.au/uploadedFiles/ClosingTheGap/Content/Publications/2010/ctg-ip02.pdf>
- Domagała-Kręcioch, A. (2008). *Niedostosowanie społeczne uczniów a niepowodzenia szkolne (Social maladjustment of students and school underachievement)*. Wydawnictwo Naukowe Akademii Pedagogicznej.
- Drange, N., & Telle, K. (2010). *The effect of preschool on the school performance of children from immigrant families Results from an introduction of free preschool in two districts in Oslo* (p. 47). Oslo: Statistics Norway. Retrieved from <https://www.ssb.no/a/publikasjoner/pdf/DP/dp631.pdf>
- Dumas, C., & Lefranc, A. (2012). Early Schooling and Later Outcomes: Evidence from Preschool Extension in France. In *Cross-National Research on the Intergenerational Transmission of Disadvantage*. New York: Russell Sage Foundation. Retrieved from <http://thema.u-cergy.fr/IMG/documents/2010-07.pdf>
- Dursun, Ş. (2009). A Comparison of the Mathematical Skills of First Graders with and without Preschool Education. *Educational Sciences: Theory & Practice*, 9, 1691–1715.
- Egelund, N. (2011). Gennemførelse i uddannelsessystemet – hvilke barrierer er der? (Implementation of the education system - what are the barriers). *Paidea*, 2, 1.
- Eivers, E., Ryer, E., & Brinkley, A. (2000). *Characteristics of Early School Leavers: Results of the Research Strand of the 8 to 15 Year Old Early School Leavers Initiative* (p. 193). Educational Research Centre St. Patrick's College. Retrieved from <http://www.drugsandalcohol.ie/13467/1/CharofESL.pdf>

- Ekins, A. (2010). *Understanding and Tackling Underachievement: Whole-school strategies to meet the needs of vulnerable children in primary schools*. Optimus Education.
- Eriksson, L. (2008). Lärares kontakter och samverkan med föräldrar – en kartläggning (How teachers' encounter and collaborate with parents – a survey). In *Myndigheten för skolutveckling, Vi lämnar till skolan det käraste vi har. Om samarbete med föräldrar – en relation som utmanar (School taking care of the ones' we love. Collaboration with parents – a challenging relation)* (pp. 102–115). Myndigheten för skolutveckling. Retrieved from <http://www.skolverket.se/publikationer?id=2070>
- Erkan, S., & Kirca, A. (2010). A Son the Effects of Preschool Education on Primary First Graders' School Preparedness. *H. U. Journal of Education*, 38, 94–106.
- European Commission. (2010). Commission Staff Working Paper, Reducing Early School Leaving: Accompanying Document to the Proposal for a Council Recommendation on Policies to Reduce Early School Leaving.
- European Commission. (2011). Communication from the Commission. Early Childhood Education and Care: Providing all our children with the best start for the world of tomorrow.
- European Commission. (2012). *EU High Level Group of Experts on Literacy. Final Report*. European Commission.
- European Commission. (2013a). *Peer Review on Early School Leaving* (Draft) (p. 32). EC DGEAC. Retrieved from http://ec.europa.eu/education/school-education/doc/peer/report_en.pdf
- European Commission. (2013b). *Reducing early school leaving: Key messages and policy support Final Report of the Thematic Working Group on Early School Leaving*. Retrieved from http://ec.europa.eu/education/policy/strategic-framework/doc/esl-group-report_en.pdf
- European Commission. (2013c). *Work-Based Learning In Europe*. European Commission.
- European Commission/EACEA. (2014). *The Teaching and Learning International Survey (TALIS) 2013 Main findings from the survey and implications for education and training policies in Europe*. European Commission.
- European Council. (2007). Conclusions of the Council and of the Representatives of the Governments of the Member States, meeting within the Council of November 2007, on improving the quality of teacher education (Official Journal 2007/C 300/07 of 12.12.2007).
- Eurydice. (2009a). *Early childhood education and care in Europe: tackling social and cultural inequalities* (p. 190). Brussels: EACEA, Eurydice. Retrieved from

http://eacea.ec.europa.eu/education/eurydice/documents/thematic_reports/098EN.pdf

Eurydice. (2009b). *National Testing of Pupils in Europe: Objectives, Organisation and Use of Results*. EACEA, Eurydice.

Eurydice. (2011). *Grade Retention during Compulsory Education in Europe: Regulations and Statistics*.

Eurydice. (2013a). *Education and Training in Europe 2020: Responses from the EU Member States*. Brussels.

Eurydice. (2013b). *Key Data on Teachers and School Leaders in Europe*. Publications Office of the European Union. Retrieved from http://eacea.ec.europa.eu/education/eurydice/documents/key_data_series/151EN.pdf

Eurydice. (2013c). *National Student Fee and Support Systems* (Eurydice facts and figures). Retrieved from http://eacea.ec.europa.eu/education/eurydice/documents/facts_and_figures/fes_support.pdf

Eurydice. (2014a). *Key Data on Early Childhood 2014 Edition Eurydice Report Education and Care Education and Training in Europe* (p. 203). European Commission.

Eurydice. (2014b). *Key Data on Early Childhood Education and Care in Europe – 2014 Edition*. EACEA, Eurydice.

Evangelou, M., Silva, K., Kyriacauo, M., Wild, M., & Glenny, G. (2009). *Early Years Learning and Development: A Literature Review* (p. 120). DCSF. Retrieved from <http://dera.ioe.ac.uk/11382/2/DCSF-RR176.pdf>

Evangelou, M., Taggart, B., Sylva, K., Melhuish, E., Sammons, P., & Siraj-Blatchford, I.-S. (2008). *What Makes a Successful Transition from Primary to Secondary School?* London: Institute of Education, University of London.

Fabian, H., & Dunlop, A.-W. (2006). *Outcomes of Good Practice in Transition Processes for Children Entering Primary School* (Background paper prepared for the Education for All Global Monitoring Report 2007) (p. 21). Retrieved from <http://unesdoc.unesco.org/images/0014/001474/147463e.pdf>

Fantuzzo, J., & McWayne, C. (2002). The relationship between peer-play interactions in the family context and dimensions of school readiness for low-income preschool children. *Journal of Educational Psychology*, 94(2), 79–87.

Fantuzzo, J., McWayne, C., Perry, M. A., & Childs, S. (2004). Multiple dimensions of family involvement and their relations to behavioral and learning competencies for urban, low-income children. *School Psychology Review*, 33(4), 467–480.

- Fatyga, B., Tyszkiewicz, A., & Zieliński, P. (2001). *Skala i powody wypadania uczniów z systemu edukacji w Polsce* (p. 42). Warszawa. Retrieved from <http://www.isp.org.pl/files/19695389340780001001117708679.pdf>
- Faubert, B. (2012). *In-school policies and practices for overcoming school failure: A literature review for the OECD*. OECD.
- Ferić, I., Milas, G., & Rihtar, S. (2010). Razlozi i odrednice ranog napuštanja školovanja (Reasons and determinants of early school leaving). *Društvena istraživanja*, 19(4-5), 621–645.
- Flere, S., Klanjšek, R., Musil, B., Tavčar Krajnc, M., & Kiribiš, A. (2009). *Kdo je uspešen v slovenski šoli? Znanstveno poročilo (Who is successful in Slovenian school? Research report)* (p. 149). Ljubljana: Pedagoški inštitut. Retrieved from http://www.pei.si/UserFilesUpload/file/zalozba/ZnanstvenaPorocila/15_09_kdo_je_uspesen_v_slovenski_soli.pdf
- Friendly, M., & Lero, D. (2002). *Social inclusion through early childhood education and care* (p. 40). The Laidlaw Foundation. Retrieved from <http://www.offordcentre.com/VoicesWebsite/library/reports/documents/laidlaw/lero.pdf>
- Gečienė, I., & Čiupailaitė, D. (2007). *Ankstyvojo pasitraukimo iš švietimo sistemos prevencija: tyrimo ataskaita (Prevention of Early School Leaving: Research Report)* (p. 176). Vilnius: Lietuvos Respublikos švietimo ir mokslo ministerija. Retrieved from http://www.smm.lt/uploads/lawacts/docs/436_1119a5cf3763a21c8222e6c5d9d25dce.pdf
- GHK Consulting Ltd. (2005). *Study on Access to Education and Training, Basic Skills and Early School Leavers* (p. 151). DGEAC. Retrieved from http://ec.europa.eu/education/more-information/doc/leavers_en.pdf
- GHK Consulting Ltd. (2011). *Study on Reducing Early School Leaving in the EU* (p. 350). DGEAC. Retrieved from <http://www.europarl.europa.eu/studies>
- Gorard, S., & Smith, E. (2004). What is 'Underachievement at School. *School Leadership & Management*, 24(2), 205–225.
- Gormley, W., Phillips, D., & Gayer, T. (2008). Preschool Programs Can Boost School Readiness. *Science*, 320, 1723–1724.
- Grabažienė, J. (2010). *Jaunimo mokyklos mokinių mokyklos nelankymo priežastys (The Reasons of School Non-attendance in the Youth School)* (master thesis). Retrieved from <http://www.alternatyvusisugdymas.lt/uploads/2012/05/Jaunimo-mokyklos-mokini%C5%B3-mokyklos-nelankymo-prie%C5%BEastys-1.pdf>

- Gruber, S. (2007). *Skolan gör skillnad. Etnicitet och institutionell praktik*. Linköpings universite.
- Haahr, J. H. (2005). *Explaining Student Performance Evidence from the international PISA, TIMSS and PIRLS surveys*. Århus: Danish Technological Institute. Retrieved from http://ec.europa.eu/education/more-information/doc/basic_en.pdf
- Häfeli, K., & Schellenberg, C. (2009). *Erfolgsfaktoren in der Berufsbildung bei gefährdeten Jugendlichen* (p. 156). generalsekretariat EDK. Retrieved from <http://edudoc.ch/record/35458/files/StuB29A.pdf>
- Hammond, L. D. (2003). *The Learning Classroom: Theory into Practice, A 13-part video- and Web-based course for teacher education and professional development*. Stanford University School of Education.
- Harrison, L., Ungerer, J., & Smith, G. (2009). *Child Care and Early Education in Australia* (Social Policy Research Paper No. No. 40) (p. 222). Australia. Retrieved from http://www.fahcsia.gov.au/sites/default/files/documents/05_2012/sprp_40.pdf
- Havnes, T., & Mogstad, M. (2009). *No Child Left Behind - Universal Child Care and Children's Long-Run Outcomes* (Discussion Papers No. 4561). IZA. Retrieved from <http://ftp.iza.org/dp4561.pdf>
- Hayes, A. (2011). *Transition to School: Position Statement* (p. 8). Charles Sturt University. Retrieved from <http://www.csu.edu.au/research/ripple/research-groups/etc/alb-trans-statement-AHayes.pdf>
- Hayes, N., & O'Kane. (2006). The Transition to School in Ireland: Views of preschool and primary teachers. *International Journal of Transitions in Childhood*.
- Hazarika, G., & Viren, V. (2010). *The Effect of Early Childhood Developmental Program Attendance On Future School Enrollment and Grade Progression i n Rural North India* (p. 22). Retrieved from http://www.isid.ac.in/~pu/conference/dec_11_conf/Papers/GautamHazarika.pdf
- Heckman, J. (2008). *Schools, Skills and synapses* (IZA Discussion Papers) (p. 95). IZA. Retrieved from <http://ftp.iza.org/dp3515.pdf>
- Holleler, L. (2002). *Kooperation zwischen Kindergarten und Schule unter Berücksichtigung von Kindern mit besonderen Bedürfnissen (Cooperation between kindergarten and school with due regard to children with special needs)*. Graz.
- Huntsman, L. (2008). *Determinants of Quality in Child Care: A Review of the Research Evidence* (p. 32). Centre for Parenting & Research Service System Development Division NSW Department of Community Services. Retrieved from

http://www.community.nsw.gov.au/docswr/_assets/main/documents/research_qualitychildcare.pdf

- INCLUD-ED. (2009). *Actions for Success in Schools in Europe* (p. 81). European Commission, Directorate-General for Research. Retrieved from http://www.ub.edu/includ-ed/docs/INCLUDED_actions%20for%20success.pdf
- Instituto de la Juventud (INJUVE). (2007). *Jóvenes y fracaso escolar en España (Youth and school failure in Spain)* (p. 386). Madrid: Instituto de la Juventud. Retrieved from <http://www.injuve.es/sites/default/files/2012/44/publicaciones/estudio-jovenesyfracasoescolar-completo.pdf>
- Ishimine, K., Tayler, C., & Bennet, J. (2010). Quality and Early Childhood Education and Care: A Policy Initiative for the 21st Century. *International Journal of Child Care and Education Policy*, 4(2), 67–80.
- Ivić, I., & Pešikan, A. (2009). *Obrazovanjem protiv siromaštva- analiza efekata uvođenja PPP u Srbiji (Education Against Poverty: Analysis of Effects of PPP Introduction in Serbia)* (p. 52). Belgrade: MEST&SIPRU. Retrieved from <http://www.prsp.gov.rs/download/Analiza%20uticaja%20uvodjenja%20PPP.pdf>
- Jacob, B., & Lefgren, L. (2009). The Effect of Grade Retention on High School Completion. *American Economic Journal of Applied Economics*, 1(3), 33–58.
- Kaczan, R., & Zwierzyńska, E. (2012). Motywacja do nauki ([Motivation for studying]). In *Uczeń-szkola-dom. Raport z badań (Student-School-Home. Research report)* (pp. 129–160). Warszawa.
- Kagitcibas, C., Sunar, D., Bekman, S., Baydar, N., & Cemalcilar, Z. (2009). Continuing Effects of Early Enrichment in Adult Life: The Turkish Early Enrichment Project 22 years later. *Journal of Applied Developmental Psychology*, 30(6), 764–779.
- Kidd, C., Palmeri, H., & Aslin, R. (2013). Rational snacking: Young children's decision-making on the marshmallow task is moderated by beliefs about environmental reliability. *Cognition*, 126(1), 109–114.
- Kittl, H., Mayr, A., & Schiffer, B. (2006). *Early School Leaving und Dropout. Eine empirische Studie über das Ausmaß von Schulabsentismus, die Ursachen und die Bedingungen von Jugendlichen, die das Schulsystem ohne oder höchstens mit Pflichtschulabschluss verlassen bzw. einen begonnenen Ausbildungsweg abbrechen*. Graz: Universität, Institut für Erziehungswissenschaft.
- Klein, P., & Rye, H. (2004). Interaction-oriented early intervention in Ethiopia: The Mediational Intervention for Sensitizing Caregivers (MISC) Approach. *Infants and Young Children*, 17, 340–354.

- Kratowohl, D. (2002). A Revision of Bloom's Taxonomy: An Overview. *Theory into Practice*, 41.
- Krek, J., & Metljak, M. (Eds.). (2011). *Belaknjiga o vzgoji in izobraževanju v Republiki Sloveniji* (White book on education in the Republic of Slovenia). Ljubljana: Zavod RS za šolstvo in Ministrstvo za šolstvo in šport. Retrieved from http://www.belaknjiga2011.si/pdf/bela_knjiga_2011.pdf
- Kruszewska, A. (2011). Dziecko 6-letnie na progu szkolnym – jego umiejętności społeczno-emocjonalne (6-years old child at entrance to the school – its social and emotional competences). In *Pedagogika przedszkolna i wczesnoszkolna: badania, opinie, inspiracje*. Warszawa: Wydawnictwo Akademickie Żak.
- Lamote, C., Van Landeghem, G., Blommaert, M., Nicaise, I., De Fraine, B., & Van Damme, J. (2013). *Voortijdig schoolverlaten in Vlaanderen: een stand van zaken en een voorstel tot aanpak*. [Early school leaving in Flanders: current situation and policy proposal] Pp. 13-60 in: Callens, M., Noppe, J., & Vanderleyden, L. (eds.). *De sociale staat van Vlaanderen*. Brussels: Studiedienst van de Vlaamse regering.
- Layzer, J., & Goodson, B. (2006). The "Quality " of Early Care and Education Settings: Definitional and Measurement Issues,. *Evaluation Review*, 30(5), 556–576.
- Lazzari, A., & Vandenbroeck, M. (2012). Literature review on the participation of disadvantaged children and families in ECEC services in Europe. In *Early childhood education and care (ECEC) for children from disadvantaged backgrounds: Findings from a European literature review and two case studies*. DG EAC.
- Lazzari, A., & Vandenbroeck, M. (2013). *The impact of Early Childhood Education and Care on Cognitive and Non-cognitive Development. A Review of European Studies* (p. 12). Retrieved from <http://www.vbjk.be/files/Impact%20of%20ECEC%20on%20%20cognitive%20and%20non-cognitive%20development%20in%20EU.pdf>
- Levin, b. (2003). *Approaches to Equity in Policy for Lifelong Learning* (A paper commissioned by the Education and Training Policy Division, OECD, for the Equity in Education Thematic Review). OECD.
- Litjens, I., & Taguma, M. (2010). *Revised Literature Overview for the 7th Meeting of the Network on Early Childhood Education and Care*. Paris: OECD.
- Loeb, S., & Page, M. (2000). Examining the link between teacher wages and student outcomes: the importance of alternative labor market opportunities and non-pecuniary variation. *The Review of Economics and Statistics*, August, 82(3), 393–408.
- Lyche, C. (2010). *Taking on the completion challenge: A literature review on policies to prevent dropout and early school leaving* (EDU working paper). Paris: OECD.

- Lynch, R. (2005). Early Childhood Investment Yields Big Payoff. Policy Perspective. *WestED*, 12.
- Mackenzie, E., McMaugh, A., & O'Sullivan, K. (2012). Perceptions of primary to secondary school transitions: Challenge or threat? *Issues In Educational Research*, 22(2), 298–314.
- Margetts, K. (2007). Preparing Children for School- benefits and privileges. *Australian Journal of Early Childhood*, 32(2), 43–50.
- Marks, G., & McMillian, J. (2001). Early School Leavers: Who Are They, Why Do They Leave, and What Are the Consequences? *Australian Council for Educational Research*, 8.
- Martín, E., Martínez-Arias, R., Marchesi, A., & Pérez, E. (2008). Variables that Predict Academic Achievement in the Spanish Compulsory Secondary Educational System: A Longitudinal, Multi-Level Analysis. *The Spanish Journal of Psychology*, 11(2), 400–413.
- Matković, T. (2010). Obrazovanje roditelja, materijalni status I rano napuštanje školovanja u Hrvatskoj: Trendovi u proteklom desetljeću. (Parental education, income level and early school leaving in Croatia: Trends of the last decade). *Društvena istraživanja*, 19(4-5), 643–667.
- Mickovska, G. (2001). *National Assessment in Math and Language Achievement in Atudents Grade 4 in Primary Education* (TIMSS report). Skopje: Biro for Education Development.
- Mischel, W., Ebbesen, E., & Raskoff Zeiss, A. (1972). Cognitive and attentional mechanisms in delay of gratification. *Journal of Personality and Social Psychology*, 21(2), 204–218.
- Mitchell, L., Wylie, C., & Carr, Ma. (2008). *Outcomes of Early Childhood Education: Literature Review* (p. 125). New Zealand: Ministry of Education. Retrieved from http://www.nzcer.org.nz/system/files/885_Outcomes.pdf
- Moss, P. (Ed.). (2013). *Early Childhood and Compulsory Education Reconceptualising the relationship*. Routledge.
- Naudeau, S., Naoko, K., Valeria, A., & Neuman, M. (2011). *Investing in Young Children: An Early Childhood development Guide for Policy Dialogue and Pproject Preparation* (p. 320). The International Bank for Reconstruction and Development /The World Bank. Retrieved from http://www-wds.worldbank.org/external/default/WDSContentServer/IW3P/IB/2012/05/24/000333038_20120524234213/Rendered/PDF/578760REPLACEM053783B09780821385265.pdf
- Nelson, C., Thomas, K., & de Haan, M. (2006). *Neuroscience and Cognitive Development: The Role of Experience and the Developing Brain*. Wiley.

- Neuman, M. (2000). Hand in Hand: Improving the Links Between ECEC and Schools in OECD Countries. Retrieved from http://www.childpolicyintl.org/publications/Hand%20in%20Hand%20Improving%20the%20Links%20Between%20ECEC%20and%20Schools%20in%20OECD%20Countries_Michelle%20Neuman.pdf
- NICHD. (2006). Child Care Effect Sizes for the NICHD Study of Early Child Care and Youth Development. *American Psychologist*, 61, 99 – 116.
- NICHD Early Child Care Research Network. (1996). Characteristics of infant child care; Factors contributing to positive caregiving. *Early Childhood Research Quarterly*, 11(3), 296–306.
- Nield, R. C., Stoner-Eby, S., & Furstenberg, F. (2008). Connecting Entrance and Departure: the Transition to Ninth Grade and High School Dropout. *Education and Urban Society*, 40(5).
- Niesel, R., & Griebel, W. (2005). Transition Competence And Resiliency In Educational Institutions. *International Journal of Transitions in Childhood*, 1, 8.
- Nolan, A., Hamm, C., McCartin, J., & Hunt, J. (2009). *Outcomes and Indicators of a Positive Start to School* (p. 55). Melbourne: Victoria University. Retrieved from <https://www.eduweb.vic.gov.au/edulibrary/public/earlychildhood/learning/outcomes-final-vicuni.pdf>
- Nord, C. W., Lenon, J., & Liu, B. (1999). *Home literacy activities and signs of children's emerging literacy, 1993 and 1999*. Washington, DC: National Center for Education Statistics, US Department of Education, Office of Educational Research and Improvement.
- Nusche, D. (2009). *What Works in Migrant Education? A Review of Evidence and Policy Options* (OECD Education Working Paper No. 22) (p. 49). OECD. Retrieved from <http://www.bmukk.gv.at/medienpool/18822/eduwhatworksmigrantpolicy.pdf>
- Nussbaum, M. (2000). *Women and Human Development*. Oxford press. Retrieved from http://genderbudgeting.files.wordpress.com/2012/12/nussbaum_women_capabilityapproach2000.pdf
- Nussbaum, M. (2011). *Creating Capabilities: The Human Development Approach*. Cambridge: Belknap Press of Harvard University Press.
- Oakes, J. (2005). *Keeping Track: Schools Structure Inequality Second Edition*. New Haven and London: Yale University Press.
- OECD. (2001). *Starting Strong: Early Childhood Education and Care* (p. 216). Paris: OECD. Retrieved from <http://browse.oecdbookshop.org/oecd/pdfs/product/9101011e.pdf>

- OECD. (2004). *Starting Strong-Curricula and Pedagogies in Early Childhood Education and Care Five Curriculum Outlines* (p. 34). Paris: OECD. Retrieved from <http://www.oecd.org/education/school/31672150.pdf>
- OECD. (2005). *School Factors Related to Quality and Equity-Results from PISA 2000*, (p. 158). Paris: OECD. Retrieved from <http://www.oecd.org/education/school/programmeforminternationalstudentassessments/pisa/34668095.pdf>
- OECD. (2006a). *Starting Strong II: Early Childhood Education and Care* (p. 445). Paris: OECD. Retrieved from <http://www.oecd.org/newsroom/37425999.pdf>
- OECD. (2006b). *Starting Strong II: Early Childhood Education and Care* (p. 445). Paris: OECD. Retrieved from <http://www.oecd.org/newsroom/37425999.pdf>
- OECD. (2008). *Assessment for learning: Formative assessment, OECD/CERI International Conference Learning in the 21st century: Research, Innovation and Policy, the Centre for Education Research and Innovation* (p. 25). Paris: CERI. Retrieved from <http://www.oecd.org/site/educeri21st/40600533.pdf>
- OECD. (2010a). *PISA 2009 Results: Overcoming Social Background – Equity in Learning Opportunities and Outcomes (Volume II)* (p. 224). Paris: OECD. Retrieved from <http://www.oecd.org/pisa/pisaproducts/48852584.pdf>
- OECD. (2010b). *PISA 2009 Results: What Makes a School Successful?: Resources, Policies and Practices (Volume IV)*. Paris: OECD.
- OECD. (2012a). *Education at a Glance*. OECD Publishing.
- OECD. (2012b). *Equity and Quality in Education: Supporting Disadvantaged Students and Schools* (p. 170). Paris: OECD. Retrieved from <http://www.oecd.org/edu/school/50293148.pdf>
- OECD. (2012c). *Equity and Quality in Education: Supporting Disadvantaged Students and Schools SPOTLIGHT REPORT: AUSTRIA* (p. 10). Paris: OECD Publishing. Retrieved from <http://www.oecd.org/austria/49603557.pdf>
- OECD. (2012d). *Starting Strong III - A Quality Toolbox for Early Childhood Education and Care* (p. 374). Paris: OECD. Retrieved from <http://stofnanir.hi.is/rannung/sites/files/rannung/Starting%20Strong%20III.pdf>
- OECD. (2013a). *PISA 2012 Results: Excellence Through Equity: Giving Every Student the Chance to Succeed (Volume II)*. Paris: OECD.
- OECD. (2013b). *PISA 2012 Results: What Makes Schools Successful? Resources, Policies and Practices, (Volume IV)* (PISA report). Paris: OECD.
- OECD. (2013c). *Synergies for Better Learning An International Perspective on Evaluation and Assessment*. OECD Publishing.

- OECD. (2014). *PISA 2012 Results: What Students Know and Can do: Student Performance in Mathematics, Reading and Science (Volume I) [Revised edition February 2014]*. OECD.
- Osakwe, R. N. (2009). The Effect of Early Childhood Education Experience on the Academic Performances of Primary School Children. *Stud Home Comm Sci*, 3(2), 143–147.
- Panteia. (2013). *Quality in Early Childhood Education and Care*. European Parliament. Retrieved from http://www.europarl.europa.eu/RegData/etudes/etudes/join/2013/495867/IPO_L-CULT_ET%282013%29495867_EN.pdf
- Parreira do Amaral, M., Walther, A., & Litau, J. (2013). *Governance of educational Trajectories in EuropeAccess, Coping and Relevance of Education for Young People in European Knowledge Societies in Comparative Perspective* (Project Final Report) (p. 52). University of Frankfurt. Retrieved from http://www.google.lt/url?sa=t&rct=j&q=&esrc=s&source=web&cd=3&ved=0C DMQFjAC&url=http%3A%2F%2Fwww.goete.eu%2Fdownload%2Fworking-papers%2Fdoc_download%2F70-goete-final-report&ei=YB9dUpP4MYbXsgas3YCgBw&usg=AFQjCNGnd2EsbkMk8pHkt-3PcBHdZEANFw&bvm=bv.53899372,d.bGE&cad=rja
- Patton, G., & Viner, R. (2007). *Pubertal transitions in health*. The Lancet.
- Pavlović-Babić, D., & Baucal, A. (2010). Čitalačka pismenost kao mera kvaliteta obrazovanja - procena na osnovu PISA 2009 podataka (). Reading literacy as a measure of the quality of education: Estimates based on PISA 2009 data). *Psihološka istraživanja*, 13(2), 241–260.
- Peček, M., & Razdevšek-Pučko, C. (2003). *Uspešnost in pravičnost v šoli (Effectiveness and equity in school)*. Ljubljana: Pedagoška fakulteta.
- Peisner-Feinberg, E., Burchinal, M., Clifford, R., & Yazejian, N. (1999). *The Children of the Cost, Quality, and Outcomes Study Go to School: Executive summary* (p. 28). PG Child Development Center. Retrieved from http://www.fpg.unc.edu/sites/fpg.unc.edu/files/resources/reports-and-policy-briefs/NCEDL_CQO_executive_summary.pdf
- Peters, S. (2010). *Literature review: Transition from Early Childhood Education to School* (p. 106). Wellington: Ministry of Education. Retrieved from http://lnxweb1.manukau.ac.nz/__data/assets/pdf_file/0008/85841/956_ECELitReview.pdf
- Pharris-Ciurej, N., Hirschman, C., & Willhoft, J. (2012). The 9th grade shock and the high school dropout crisis. *Social Science Research*, 41, 709–730.

- Phillips, D., Mekos, D., Scarr, S., McCartney, K., & Abbot-Shim, M. (2000). Within and Beyond the Classroom Door: Assessing Quality in Child Care Centers. *Early Childhood Research Quarterly*, 15(4), 475–496.
- Piaget, J. (1953). *The Origins of Intelligence in Children*. London: Routledge and Kegan Paul.
- Pianta, R. C., Belsky, J., Vandergrift, N., & Houts, R. (2008). Classroom Effects on Children's Achievement Trajectories in Elementary School. *American Educational Research Journal*, 45, 365–397.
- Pinto, A. I., Pessanha, M., & Aguiar, C. (2013). Effects of home environment and center-based child care quality on children's language, communication, and literacy outcome. *Early Childhood Research Quarterly*, 28, 94–101.
- Plank, S., DeLuca, S., & Estacion, A. (2008). High School Dropout and the Role of Career and Technical Education: A Survival Analysis of Surviving High School,. *Sociology of Education*, 81, 345–370.
- Plewis, I. (1991). Underachievement: A Case of Conceptual Confusion. *British Educational Research Journal*, 17(4), 377–385.
- Prusik, A. (2010). Rozwód rodziców przyczyną osiągania niskich wyników dziecka w nauce szkolnej. Historia jednej gimnazjalistki (Parents' divorce as the cause of school underachievement). In *Sukcesy i porażki w edukacji dzieci i młodzieży [Success and failure in the education of children and youth]*. Olsztyn: Prospekt PR,.
- Puma, M., Bell, S., Cook, R., & Heid, C. (2012). *Third Grade Follow-up to the Head Start Impact Study-Final report*, (OPRE Report) (p. 346). Office of Planning, Research and Evaluation Administration for Children and Families U.S. Department of Health and Human Services. Retrieved from http://www.acf.hhs.gov/sites/default/files/opre/head_start_report.pdf
- Reis, S. M., & McCoach, B. (2000). The Underachievement of Gifted Students: What Do We Know and Where Do We Go? *Gifted Child Quarterly*, 4, 152–170.
- RESLEA. (2012). *Reduction of Early School Leaving of Young People Work Package 2 Country Analysis & Reports- Germany* (No. Project Reference: 521366-LLP-1-2011-1-PT-KA1-KA1E CETB).
- Roseberry, S., Hirsh-Pasek, K., & Golinkoff, R. (2013). Skype Me! Socially Contingent Interactions Help Toddlers Learn Language. *Child Development*.
- Rovšek, M. (2013). *Usmerjanje otrok in mladostnikov z motnjami v duševnem razvoju. Neobjavljeno poročilo raziskave. (Placement of children and adolescents with intellectual disabilities. Unpublished research report).*

- Rumberger, R., & Lamb, S. (2003). The early employment and further education experiences of high school dropouts: a comparative study of the United States and Australia. *Economics of Education Review*, 22, 353–366.
- Rumberger, R., & Lim, S. (2008). *Why Students Drop Out of School: A Review of 25 Years of Research*, California Dropout Research Project. Santa Barbara.
- Sabel, C. A., Saxenian, R., Miettinen, P., Kristens, & Hautamäki, J. (2010). Individualized Service Provision in the New Welfare State: Lessons from Special Education in Finland. *Copenhagen Business School Working Papers*.
- Saito, M. (2003). Amartya Sen's capability approach to education: A critical exploration. *Journal of Philosophy of Education*, 33(1), 17–31.
- Sammons, P., Sylva, K., Melhuish, E., Siraj-Blatchford, I.-S., Taggart, B., Grabbe, Y., & Barreau, S. (2007). *The Effective Preschool and Primary Education 3-11 Project (EPPE 3-11): Influences on Children's Development and Progress in Key Stage 2: Social/behavioural outcomes in Year 5* (p. 63). London: IoEL. Retrieved from <http://webarchive.nationalarchives.gov.uk/20130401151715/https://www.education.gov.uk/publications/eOrderingDownload/RR828.pdf>
- SCB. (2007). *Tema Utbildning. Ungdomar utan fullföljd gymnasieutbildning (Young people who have not completed upper secondary school)*. Befolkning och Välfärd.
- Sheridan, S. (2010). Quality Evaluation and Quality Enhancement in Preschool: A Model of Competence Development,. *Early Child Development and Care*, 166(1), 7–27.
- Siraj-Blatchford, I.-S., & Manni. (2007). *Effective Leadership in the Early Years Sector: The ELEYS study*. IoEL.
- Skolverket. (2009). *Vad påverkar resultaten i svensk skola? (Which factors have an impact on student's performances in school?)* (p. 60). Stockholm. Retrieved from http://gul.gu.se/public/pp/public_courses/course44744/published/1289291146518/resourceId/15954389/content/Sammanfattande%20analys%20Vad%20p%C3%A5verkar.pdf
- Skrzypniak, R. (2011). Niepowodzenia szkolne młodzieży społecznie niedostosowanej (School underachievement of socially maladjusted youth). In *Horyzonty edukacji w dialogu i perspektywie [Horizons of education in dialogue and in perspective]* (pp. 213–225). Warszawa: Diffin.
- Smyth, E., McCoy, S., & Darmody, M. (2013). *Leaving School in Ireland: Post- School Transitions and Irish Recessio*. ESRI.

- Spiess, K. C., Büchel, F., & Wagner, G. (2003). *Children's School Placement in Germany: Does Kindergarten Attendance Matter?* (p. 29). IZA. Retrieved from <http://ftp.iza.org/dp722.pdf>
- Stoep, J. (2008). *Opportunities For Eearly Literacy. Evidence for Home and School Support*. Antwerp.
- Suk Yoon, K., Duncan, T., Wen-Yu Lee, S., Scarloss, B., & Shapley, K. (2007). *Reviewing the evidence on how teacher professional development affects student achievement*. Institute of Education Sciences (IES).
- Sutherland, R., Ching Yee, W., & McNess, E. (2010). *Supporting Learning in the Transition from Primary to Secondary Schools* (p. 93). School of Geographical Sciences, University of Bristol. Retrieved from <http://www.bris.ac.uk/cmpo/publications/other/transition.pdf>
- Sylva, K., Melhuish, E., Sammons, P., Blatchford, I.-S., & Taggart, B. (2004). *The Effective Provision of Preschool Education [EPPE] Project* (Project Final Report) (p. 107). Retrieved from <http://media.education.gov.uk/assets/files/pdf/e/eppe%20final%20report%202004.pdf>
- Sylva, K., Melhuish, E., Siraj-Blatchford, I.-S., & Taggart, B. (2012). *Effective Pre - school, Primary and Secondary Education 3-14 Project (EPPSE 3 -14) Final Report from the Key Stage 3 Phase: Influences on Students ' Development from age 11 - 14*. London: Department for Education.
- Taguma, M., Litjens, I., & Makowiecki, K. (2012). *Quality Matters in Early Childhood Education and Care: New Zealand* (p. 60). Paris: OECD. Retrieved from <http://www.oecd.org/edu/school/NEW%20ZEALAND%20policy%20profile%20-%20published%203-8-2012.pdf>
- Thomas, A., & Grimes, J. (2008). *Best Practices in School Psychology V* (5th edition.). NASP.
- Traag, T., Lubbers, M., & van der Velden, R. (2012). *That's What Friends Are For? The Impact of Peer Characteristics on Early School-leaving*, (p. 33). Maastricht: ROA, Research Centre for Education and the Labour Market. Retrieved from http://www.roa.unimaas.nl/pdf_publications/2012/ROA_RM_2012_6.pdf
- Traag, T., & van der Velden, R. (2008). *Early school-leaving in the Netherlands -The Role of Student, Family and School Factors for Early School Leaving in Lower Secondary Education* (p. 34). Maastricht: Research Centre for Education and the Labour Market. Retrieved from http://www.roa.unimaas.nl/pdf_publications/2008/ROA_RM_2008_3.pdf
- Troyna, B. (1991). Underachievers or Underrated? The Experience of Pupils of South Asian Origin in a Secondary School. *British Educational Research Journal*, 17(4), 361-376.

- Tynjälä, P., Stenström, M.-L., & Saarnivaara, M. (2012). *Transitions and Transformations in Learning and Education*. Springer.
- Ulug, S. (2010). *Approaches for Preventing Drop-outs in Turkey*. Presented at the Strategic reflections on best practices and approaches for the prevention of early school leaving: focus on interculturality. Retrieved from <http://www.rickscafenetwork.eu/sites/default/files/RICK%27S%20cafe%27%20ppt%20BOLU%20TEAM.pdf>
- UN. (1989). Convention on the Rights of the Child, Adopted by General Assembly resolution 44/25 of 20 November 1989 entry into force 2 September 1990, in accordance with article 49.
- UNESCO. (2004). *Education for All- the quality imperative* (p. 428). UNESCO. Retrieved from <http://unesdoc.unesco.org/images/0013/001373/137333e.pdf>
- UNESCO. (2007). Good Governance of Early Childhood Care and Education: Lessons from the 2007 EFA Global Monitoring Report. *UNESCO Policy Briefs on Early Childhood*, 40. Retrieved from <http://unesdoc.unesco.org/images/0015/001529/152965e.pdf>
- UNESCO. (2010a). *Early Childhood Care and Education, Regional Report. Europe and North America* (p. 132). Retrieved from <http://unesdoc.unesco.org/images/0018/001892/189211e.pdf>
- UNESCO. (2010b). *Early Childhood Care and Education, Regional Report. Europe and North America*.
- UNESCO. (2011). *Systemic Monitoring of Education fro ALL, Training modules for Asia-Pacific*.
- UNICEF. (2012a). *School Readiness and Transitions: A companion to the Child Friendly School Manual*. UNICEF.
- UNICEF. (2012b). *School Readiness: A Conceptual Framework* (p. 40). Retrieved from http://www.unicef.org/education/files/Chil2Child_ConceptualFramework_FINAL%281%29.pdf
- UNICEF and SIPRU. (2013). *Providing Additional Support to Students from Vulnerable Groups in Pre-University Education*. Belgrade: UNICEF and SIPRU.
- UNICEF, & UNESCO. (2012). *Finishing school - A Right for Children's Development: A Joint Effort* (p. 50). UNICEF & UNESCO. Retrieved from <http://www.uis.unesco.org/Education/Documents/oosci-lac-executive-summary-2012-en.pdf>
- Unutkan Polat, O. (2007). A Study of Preschool Children's School Readiness Related to Scientific Thinking Skills. *H. U. Journal of Education*, 32, 243–254.

- Van Landeghem, G., & Van Damme, J. (2011). *Vroege schoolverlaters uit het voltijds beroepsonderwijs. Vertrek punt voor een gedifferentieerde aanpak. (Early school leavers from full-time vocational education. Starting point for a policy of differentiation)*. Leuven: KU Leuven, SteunpuntStudie- en Schoolloopbanen.
- Van Mieke, G., & Van Damme, J. (2011). *Zittenblijven in het eerste leerjaar: zinvol of niet?'. (Retention in first grade: useful or not?)* Retrieved from <http://www.klasse.be/leraren/23466/zittenblijven-de-pijn-rendeert-niet-2/>.
- Vandel, D. L., Belsky, J., & Burchinal, M. (2010). Do Effects of Early Child Care extend to Age 15 Years? Results from the NICHD Study of Early Child Care and Youth Development. *Child Development*, 81(3), 737–756.
- Vonta, T., Rutar, S., Istenič Starčič, A. in Borota, B. (2007). *Mentorstvo v profesionalnem razvoju učitelja in vzgojitelja*. Koper: Univerza na Primorskem, Pedagoška fakulteta.
- Vrinioti, K., Einarsdottir, J., & Broström, S. (2010). *Transitions from Preschool to Primary School, Early Years Transition Programme (EARLY YEARS TRANSITION PROGRAMME)* (p. 8). Retrieved from <http://www.ease-eu.com/documents/compendium/chapter02.pdf>
- Vygotsky, L. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.
- Wang, M. C., Haertel, G. D., & Walberg, H. J. (1993). Toward a Knowledge Base for School Learning. *Review of Educational Research*, 63(249), 47.
- WHO. (2009). Early childhood education-fact sheet. World Health Organisation. Retrieved from <http://www.who.int/mediacentre/factsheets/fs332/en/>
- Woodhead, M., & Moss, P. (2007). *Early Childhood and Primary Education, Early Childhood Education in Focus 2: Transitions in the Lives of Young Children* (p. 42). Walton Hall: The Open University. Retrieved from http://www.google.rs/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCcQFjAA&url=http%3A%2F%2Fwww.bernardvanleer.org%2FEarly_Childhood_and_Primary_Education_Transitions_in_the_Lives_of_Young_Children%3Fpubnr%3D521%26download%3D1&ei=SEVBURWNL7SK4gSho4HIBQ&usg=AFQjCNEj12s7FNdp4g2qrkOZgg0WNvTa9A&sig2=q2t8dP3LA8wujYz8yJwKMg&bvm=bv.52434380,d.bGE
- Ziegler, A., & Stoeger, H. (2012). Shortcomings of the IQ Based Construct of Underachievement-Shortcomings of the IQ Based Construct of Underachievement. *Roeper Review*, 34(2), 123–132.
- Zuoza, R. (2010). *Mokyklos nelankymo problemos ir jų sprendimo galimybės (Problems of Early School Leaving and Their Solving)*. Retrieved from http://www.google.rs/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCcQFjAA&url=http%3A%2F%2Fwww.vaikogerove.lt%2Fupl%2Fbaigiamoji_konferencija%2Fmokyklos_nelankymo_problemos.pps&ei=2kBBUo6bMMzBtAacu4G

IAw&usg=AFQjCNEuBhXyIwXo5u7TJUJcCzLwZ72iIw&sig2=P3TeMrCGAe7CKMx_WOt5tQ&bvm=bv.52434380,d.bGE

Zupancic, M., & Kavcic, T. (2006). The Age of Entry into High-Quality Preschool, Child and Family Factors, and Developmental Outcomes in Early Childhood. *European Early Childhood Education Research Journal*, 14(1), 91–111.

