Quality Matters in Early Childhood Education and Care

PORTUGAL

Miho Taguma, Ineke Litjens and Kelly Makowiecki

OECD

Quality Matters in Early Childhood Education and Care: Portugal 2012

Miho Taguma, Ineke Litjens
and Kelly Makowiecki

ISBN 978-92-64-17672-0(PDF)

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Photo credit: cover © Mark Yuill - Fotolia.com

Corrigenda to OECD publications may be found on line at: *www.oecd.org/publishing/corrigenda*.

FOREWORD

This publication is intended to be a quick reference guide for anyone with a role to play in encouraging quality through Portugal's early childhood education and care (ECEC) curriculum.

There is a growing body of evidence that children starting strong in their learning and well-being will have better outcomes when they grow older. Such evidence has driven policy makers to design an early intervention and re-think their education spending patterns to gain "value for money". At the same time, research emphasises that the benefits from early interventions are conditional on the level of "quality" of ECEC that children experience.

What does "quality" mean? *Starting Strong III: A Quality Toolbox for Early Childhood Education and Care* has identified five policy levers that can encourage quality in ECEC, having positive effects on early child development and learning.

- Policy Lever 1: Setting out quality goals and regulations
- Policy Lever 2: Designing and implementing curriculum and standards
- Policy Lever 3: Improving qualifications, training and working conditions
- Policy Lever 4: Engaging families and communities
- Policy Lever 5: Advancing data collection, research and monitoring

Of the five policy levers, Portugal has selected **Policy Lever 2: Designing and implementing curriculum and standards** for its current policy focus.

This policy profile for Portugal would not have been possible without the support of the national authority and the stakeholders involved. The OECD Secretariat would like to thank the national co-ordinators, Alexandra Marques and Fernando Reis, for their work in providing information. We would also like to thank all those who gave their time to respond to our many questions, provide comments on preliminary drafts and validate the information for accuracy. We would also like to thank consultants Janice Heejin Kim and Matias Egeland who worked on sections of the preliminary drafts as part of the OECD team on Early Childhood Education and Care.

The online version of the quality toolbox can be found at: **www.oecd.org/edu/earlychildhood/toolbox**. The online toolbox has additional information, such as a country materials page where actual documents from OECD countries are presented, including curricula, regulatory frameworks and data systems information. All information related to the OECD Network on ECEC is available at: **www.oecd.org/edu/earlychildhood**.

TABLE OF CONTENTS

Tables

Figures

EXECUTIVE SUMMARY

A common curriculum framework helps ensure an even level of quality across different forms of provision and for different groups of children.

ECEC is receiving increased policy interest in Portugal, as improving quality in the ECEC sector is a subject of growing importance. The OECD has identified five effective policy levers to encourage quality in the sector: 1) quality goals and regulations; 2) curriculum and guidelines; 3) workforce; 4) family and community engagement; and 5) data, research and monitoring. Of the five aspects, Portugal considers a well-designed balanced curriculum as key to providing high-quality ECEC with the most favourable holistic outcomes for children.

With a weak curriculum framework, children may miss out on stimulating environments that are of high importance during the early years.

A common framework in the form of a curriculum or learning standards helps staff to clarify their pedagogical aims, keep progression in mind, provide a structure for the child's day, focus on the most important aspects of child development, and respond adequately to children's needs. It can also ensure continuity between ECEC and primary schooling, ensuring that children are equipped with the knowledge and skills needed for primary school and further learning. Additionally, a common framework helps parents learn about child development and encourage them to ensure a good home learning environment and can act as a bridge between staff and parents for information sharing about what children do in centres and facilitating needs-based interventions.

Designing curricula based on cognitive and neurological science can contribute to the age-appropriateness of activities and ensure that children do not miss out on relevant development elements.

Research indicates that the brain sensitivity to language, numeracy, social skills and emotional control all peak before the age of four, which suggests that ECEC matters greatly for children's development of key skills and abilities. High-quality curriculum frameworks are related to practice in which cognitive and social development are viewed as complementary and of equal importance. Combining child-initiated and staff-initiated contents and activities maximises cognitive learning and social outcomes: child-initiated activities can have long-term benefits, including an increased level of community service and motivation to pursue higher education; while staff-initiated learning has positive (short-term) effects on IQ scores, literacy and math. Local adaptations of curricula in partnership with staff, families, children and communities can reinforce the relevance of ECEC services to local children and communities.

Portugal could share its good initiatives to enhance quality through curriculum with other countries, such as the development of materials to support implementation.

Portugal's preschool curriculum, the Curriculum Guidelines for Preschool Education or *Orientações Curriculares para a Educação Pré-escolar* (OCEPE), is overall a cogent document that addresses subjects relevant for early cognitive and socio-emotional development. It provides good support for staff in the form of child outcomes, materials for implementation of the guidelines and reaching the curriculum's objectives, and references to what is expected of preschools and staff.

International comparative data suggests potential areas of reflection for Portugal, such as the age coverage of the guidelines; alignment with primary schooling; and cultural diversity aspects.

Capitalising upon its strengths, Portugal could further enhance quality through curriculum. Other country practices would suggest such options as: 1) reflecting on the coverage of the curriculum guidelines and developing guidelines for the zero-to-three-years sector; 2) reflecting on the explicit importance of child agency and play; 3) improving explicit alignment with primary schooling; 4) reflecting on content addressing cultural diversity aspects; and 5) further improving communication and dissemination by staff, as well as leadership and teaching management, for effective implementation of the curriculum and stimulation of early development.

Portugal has undertaken measures to tackle challenges in enhancing quality through curriculum by, among others, providing possibilities for local adaption of the national guidelines and planning the development of curriculum guidelines for the care sector.

Common challenges countries face in enhancing quality in ECEC curriculum are: 1) defining goals and content; 2) curriculum alignment for continuous child development; 3) effective implementation; and 4) systematic evaluation and assessment. Portugal has made several efforts in tackling these challenges by, for example, involving stakeholders in the design process to ensure stakeholder buy-in; aligning the guidelines with international conventions regarding children's rights and providing possibilities for local adaption of the national guidelines; carrying out a study to identify the areas in need of materials to support the implementation of the curriculum guidelines by both staff and parents; and evaluating the implementation of the guidelines.

To further their efforts, Portugal could consider strategies implemented by Australia, Scotland and other countries, such as developing an integrated curriculum for the entire ECEC age range; linking the ECEC curriculum to other levels of education; including practical examples in the curriculum document to support staff and stimulate development at home; and integrating "curriculum" as part of monitoring processes.

INTRODUCTION

Aim of the policy profile

Early childhood education and care (ECEC) has become a policy priority in many countries. A growing body of research recognises that it provides a wide range of benefits, including social and economic benefits, better child well-being and learning outcomes as a foundation for lifelong learning, more equitable outcomes and reduction of poverty, and increased intergenerational social mobility. But these positive benefits are directly related to the "quality" of ECEC.

Definitions of quality differ across countries and across different stakeholder groups depending on beliefs, values, a country's (or region's) socio-economic context, and the needs of the community of users. While definitions should be interpreted with caution and sensitivity when comparing cross-country practices, the OECD has taken a two-tier approach to define "quality" to proceed policy discussions. Therefore, this policy profile considers quality in terms of "structural quality" [1] and "process quality" [2], and sets out "child development" or "child outcome" as quality targets.

Based on international literature reviews findings, the OECD has identified five levers as key policies to encourage quality in ECEC:

1) Setting out quality goals and regulations
2) Designing and implementing curriculum and standards
3) Improving qualifications, training and working conditions
4) Engaging families and communities
5) Advancing data collection, research and monitoring

Of the five levers, Portugal has selected "designing and implementing curriculum and standards" to be the theme of this policy profile. As reference countries in focus for international comparison, Portugal has selected Australia and Scotland (United Kingdom).

Structure of the report

This report consists of three chapters:

Chapter 1: What does research say?

This chapter aims to help you to brief political leaders, stakeholders and the media about the latest research and explain why a framework, such as curriculum or learning standards, matter for better child development. It includes an overview of research findings on why curriculum matters, what the effects of different curricula are on child development and the quality of ECEC provision, which aspects matter in curriculum, policy implications from research, and knowledge gaps in current research.

Chapter 2: Where does Portugal stand compared to other countries?

Chapter two provides an international comparative overview of where your country stands with regard to curriculum design. It identifies the strengths and areas for reflection for Portugal in comparison with the selected reference countries. The chapter can provide insight into which aspects of curriculum Portugal might consider taking policy action on, and it can raise awareness about policy issues.

Chapter 3: What are the challenges and strategies?

Chapter three presents the challenges countries have faced in designing, revising and implementing curriculum and gives alternative approaches to overcome these challenges. This chapter provides a quick overview of what Australia and Scotland (United Kingdom), and other countries, have done to tackle challenges in designing, revising or implementing curriculum.

NOTES

1 Structural quality consists of "inputs to process-characteristics which create the framework for the processes that children experience". These characteristics are not only part of the ECEC location in which children participate, but they are part of the environment that surrounds the ECEC setting, *e.g.*, the community. They are often aspects of ECEC that can be regulated, though they may contain variables which cannot be regulated (Litjens and Taguma, 2010).

2 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 and Taguma, 2010).

CHAPTER 1

WHAT DOES RESEARCH SAY?

*Curriculum and standards can reinforce positive impacts on children's learning and development. They can: i) ensure even quality across different settings; ii) give guidance to staff on how to enhance children's learning and well-being; and iii) inform parents of their children's learning and development. Countries take different approaches in designing curriculum. There is a need to think beyond curriculum dichotomies (*e.g.*, academic-oriented vs. comprehensive approaches, staff-initiated instruction vs. child-initiated activities, etc.) and consolidate the "added value" of individual approaches.*

What is curriculum?

Curriculum refers to the contents and methods that substantiate children's learning and development. It answers the questions "what to teach?" and "how to teach it?" (NIEER, 2007). It is a complex concept especially in ECEC, containing multiple components, such as ECEC goals, content and pedagogical practices (Litjens and Taguma, 2010).

What is at stake?

There is growing consensus on the importance of an explicit curriculum with clear purpose, goals and approaches for zero-to-school-age children (Bertrand, 2007). Most OECD countries now use a curriculum in early childhood services, especially as children grow older; that is to say, some structuring and orientation of children's experience towards educational aims is generally accepted. Currently, there is little pedagogical direction for younger children, although many neurological developments take place prior to age of three or four (OECD, 2006). Curricula are influenced by many factors, including society's values, content standards, research findings, community expectations, culture and language. Although these factors differ per country, state, region and even programme, high-quality, well-implemented ECEC curricula provide developmentally appropriate support and cognitive challenges that can lead to positive child outcomes (Frede, 1998).

With trends toward decentralisation and diversification of policy and provision, there is more variation in programming and quality at the local level. A common framework can help ensure an even level of quality across different forms of provision and for different groups of children, while allowing for adaptation to local needs and circumstances. A clear view and articulation of goals, whether in the health, nutrition or education field, can help foster programmes that will promote the well-being of young children and respond adequately to children's needs (OECD, 2006).

Well-defined educational projects also serve the interests of young children. In infant-toddler settings with a weak pedagogical framework, young children may miss out on stimulating environments that are of high importance in the early years. At the programme level, guidelines for practice in the form of a pedagogical or curriculum framework help staff to clarify their pedagogical aims, keep progression in mind, provide a structure for the child's day, and focus observation on the most important aspects of child development (Siraj-Blatchford, 2004).

Debate remains widespread over the "correct curriculum approach" for the youngest and older children in ECEC. This raises important questions about aspects, such as the scope, relevance, focus and age-appropriateness of content; depth and length of descriptions; and input- or outcome-based descriptions. The learning areas that receive most focus in official curricula – particularly in countries where child assessments are used shortly after entry into primary school – are literacy and numeracy. Countries in the social pedagogy tradition do not exclude emergent literacy and numeracy but seek to maintain an open and holistic curriculum until children enter school and, sometimes, well into the early classes of primary school. On the other hand, countries in which early education has been part of, or closely associated with, primary school tend to privilege readiness for school and a more academic approach to curriculum and methodology.

Why does it matter?

Consistency and adaptation to local needs

A common ECEC curriculum can have multiple benefits. It can ensure more even quality levels across provisions and age groups, contributing to a more equitable system. It can also guide and support staff; facilitate communication between teachers and parents; and ensure continuity between pre-primary and primary school levels. However, a curriculum can remain unchanged for years and lack the necessary innovation to adapt to ever-changing "knowledge" societies. It can equally limit the freedom and creativity of ECEC staff (OECD, 2006).

Because ECEC centres are becoming more culturally diverse with children from different backgrounds and home environments, acknowledging that these children might have different needs is important for the effectiveness of a programme. Settings and activities that are designed to accommodate young children's different approaches to learning have been found to reduce disruptive and inattentive behaviour, like fighting with peers and unwillingness to respond to questions or co-operate in class (Philips *et al.*, 2000). The wide range of cultures, communities and settings in which young children grow up makes it essential to engage different stakeholders in developing and refining curricula and to adapt curricula, when needed, to local or cultural circumstances. This is to ensure that curricula actually meet children's needs and truly focus on the child and their development (NAEYC, 2002).

Balancing diverse expectations

It is important that all stakeholders agree on the contents of the pre-primary curriculum. Governments and parents may share common objectives, such as preparing children for school; but they may also disagree on the appropriateness of specific pre-primary subjects for children, such as the integration of ICT in the classroom. In multicultural societies, governments may want to create a skilled and knowledgeable workforce and prioritise shared values for building a sense of community. Meanwhile, minority group families may be more concerned with transmitting native languages and customs to children while respecting specific beliefs on child rearing. Curricula can contribute to balancing different expectations of early childhood development in the curriculum and ensure that expectations and needs of different stakeholders are met (Bennett, 2011; Siraj-Blatchford and Woodhead, 2009; Vandenbroeck, 2011).

Provides guidance, purpose and continuity

Curriculum can provide clear guidance and purpose through explicit pedagogical guidelines. A focused curriculum with clear goals helps ensure that ECEC staff cover critical learning or development areas. It can therefore equip children with the knowledge and skills needed for primary school and further learning and facilitate smooth transitions between education levels (UNESCO, 2004).

Improves quality and reinforces impact

Curriculum can establish higher and more consistent quality across varied ECEC provisions; and having a steering curriculum is found to contribute to decreased class repetition, reduced referral to special education and better transitions to primary school (Eurydice, 2009). At the same time, a high-quality curriculum can reduce the fade-out effect of knowledge gained in preschool (Pianta *et al.*, 2009).

Facilitates the involvement of parents

Curriculum can inform parents about what their children are learning in an education or care setting. It can act as a bridge between ECEC staff and parents for information sharing and needs-based interventions. Parental knowledge of the curriculum can be particularly important for children with special needs or learning difficulties to provide added support at home. One of the most effective approaches to increasing children's later achievement and adjustment is to support parents in actively engaging with children's learning activities at home (Desforges and Abouchaar, 2003; Harris and Goodall 2006). Activities that can be beneficially promoted include reading to children, singing songs and nursery rhymes, going to the library and playing with numbers.

What aspect matters most?

Thinking beyond curriculum dichotomies

Traditionally, ECEC curricula have been categorised into academic and more comprehensive models. An academic approach makes use of a staff-initiated curriculum with cognitive aims for school preparation. A comprehensive approach centres on the child and seeks to broaden the scope for holistic development and well-being (Bertrand, 2007; OECD, 2006). An academic approach can prescribe teaching in critical subject areas but can also limit a child-centred environment characterised by self-initiated activity, creativity and self-determination (Eurydice, 2009; Prentice, 2000). With more flexible aims, a comprehensive approach can better integrate social and emotional well-being, general knowledge and communication skills but risks losing focus of important education goals, as can be seen in Table 1.1 (Pianta, 2010; Bertrand, 2007; UNESCO, 2004).

It is argued that high-quality ECEC settings are related to curriculum practice in which cognitive *and* social development are viewed as complementary and of equal importance. Such integrated curriculum is believed to contribute to high-quality ECEC and improved social behaviour (Table 1.2) (Bennett, 2004; Siraj-Blatchford, 2010). As an example, Sweden is considered to have high-quality ECEC in part because its curriculum contents place the same value on social and cognitive learning (Sheridan *et al*., 2009, Pramling and Pramling Samuelsson, 2011).

It should be noted that "mixed models" that combine different curriculum approaches are not always successfully integrated in practice. In some countries, the implementation of a mixed model curriculum has been found to be less effective than pure "academic" or "comprehensive" approaches. Nevertheless, a clear dichotomy between the "academic" and "comprehensive" approaches is not necessarily warranted. Instead of focussing on "type" of curriculum it may be beneficial to highlight a curriculum's 1) critical learning areas and 2) implementation (Eurydice, 2009).

Table 1.1. Effects of academic and comprehensive curriculum models

Which "model" is most likely to improve a child's...	Academic	Comprehensive
IQ scores	X	
Motivation to learn		X
Literacy and numeracy	X	
Creativity		X
Independence		X
Specific knowledge	X	
Self-confidence		X
General knowledge		X
Initiative		X
Short-term outcomes	X	
Long-term outcomes	X	X

Source: Pianta *et al.*, 2010; Eurydice, 2009; Laevers, 2011; Schweinhart and Weikart, 1997.

Table 1.2. Different curriculum models' effect on school behaviours

	Direct instruction	Child centred (constructivist)	Child centred (social)
Misconduct at age 15	14.9	5.9	8.0
Ever been expelled from high school	16.0%	5.9%	8.0%
Total number of classes failed	9.6	5.0	4.9

Notes: For "Misconduct at age 15", the sum is out of 18 possible criteria of misconduct. For "Ever been expelled from High School", this is the percentage of sample group members that had been expelled from High School. For "Total number of classes failed", this is the number of classes failed by per member of sample group (asked at age 23). Results are from a study of different curriculum models impact on disadvantaged children in New Jersey. The sample groups are randomly selected and have comparable socio-economic backgrounds and other background characteristics. "Child Centred (constructivist)" is a High/Scope curriculum model, "Child Centred (social)" is a Nursery School programme with a focus on social skills. Both curriculum models place stronger weight on child-initiated activities.

Source: Schweinhart and Weikart, 1997.

Critical learning areas

Literacy

The importance of literacy is well-documented as the means through which all other subject areas are acquired (NIEER, 2006). Researchers continually point to the benefits of literacy for language development and reading outcomes (UNESCO, 2007). Literacy has also been consistently linked to improved school performance and achievement as well as higher productivity later in life. Evidence suggests literacy should focus on improving vocabulary and listening skills; building knowledge of the alphabetic code; and introduce printing (NIEER, 2006). The OECD has shown that children whose parents often read to them show markedly higher scores in PISA 2009 than students whose parents read with them infrequently or not at all (OECD, 2011). Research also shows that children quickly establish a stable approach to learning literacy. In order to do so, it is essential that they are exposed to texts, pictures, books, etc., in different communicative contexts. For example, structured play that is integrated into children's everyday interests can more easily introduce the fundamentals of written language (Mellgren and Gustafsson, 2011).

Numeracy

There is a general consensus that early mathematics should be implemented on a wide scale, especially for disadvantaged children. Even the youngest children use abstract and numerical ideas (amounts, shapes, sizes) in everyday "play" (Björklund, 2008); and staff can use children's existing knowledge and curiosity to develop mathematical concepts, methods and language (Amit and Ginsburg, 2008). In everyday activities, numeracy should focus on "big ideas" to support mathematical competence, namely numbers and operations; shapes and space; measurement and patterns (Amit and Ginsburg, 2008; NIEER, 2009).

Developing early mathematical skills means that the child discerns relations in space, time and quantities and acquires an ability to use his or her understanding in communication with others when solving problems, in logical reasoning and in representation (Björklund, 2008 and 2010). Longitudinal studies on early numeracy show that a child's understanding of numbers and numeric relationships can predict later acquisition of arithmetical skills and mathematical competence (Aunio and Niemivirta, 2010; Aunola *et al.*, 2004).

ICT

Computer-facilitated activities can have positive impacts on play and learning. They can tap into a child's creativity and motivate curiosity, exploration, sharing and problem solving (UNESCO, 2010). ICT can even eliminate boundaries between oral and written language and allow the visualisation of mathematical concepts and relationships (UNESCO, 2010). But while computer use is positively associated with achievement in math, it can be negatively correlated with reading. Some studies demonstrate that more frequent use of computers among low-achieving readers can hinder literacy progress since computers tend to replace face-to-face instruction, which is critical in literacy development (Judge *et al.*, 2006).

Science

When a child experiences science-related courses early in life, he or she is found to be encouraged to ask questions, think more critically, experiment, develop his/her reasoning skills, read and write. Studies suggest that children become better problem solvers and even experience a raise in their IQ when they are taught principles of logic, hypothesis testing and other methods of reasoning. These dimensions are all tackled in science practices (Bybee and Kennedy, 2005).

Art and music

Arts can boost children's attention, improve cognition and help children learn to envision, *i.e.*, how to think about what they cannot see. The ability to envision can help a child generate a hypothesis in science later in life or imagine past events in history class. Intensive music training can help train children for geometry tasks and map reading. However, there is little attention in research to children's use of art and music practices and its effect on developmental outcomes (Litjens and Taguma, 2010).

Physical and health development

Motor skills, such as crawling, walking and gym classes or play time, are related to children's development of social skills and an understanding of social rules. Health education and hygiene practices are found to have positive effects for children and their parents. Children participating in ECEC programmes with specific hygiene and health guidelines have improved hygiene habits, which often result in healthy weight and height in comparison to children who do not benefit from such practices (Litjens and Taguma, 2010).

Play

It is important to integrate exploration, play and peer interaction into the curriculum. Evidence suggests that "social pretend play" and "child-initiated play" lead to better co-operation, self-regulation and interpersonal skills (Bodrova and Leong, 2010; Nicolopoulou, 2010). Child-initiated play has been specifically linked to symbolic representation (Bodrova and Leong, 2010). Researchers point out that the combination of indoor and outdoor play – involving the use of media, role play, drawing and puppets – provides numerous high-quality development opportunities for children to create and negotiate (Aasen *et al.*, 2009).

Choice, self-determination and children's agency

Research shows that children are more competent and creative across a range of cognitive areas when they are given the *choice* to engage in different well-organised and age-appropriate activities (CCL, 2006). A curriculum can stimulate this behaviour through including cross-disciplinary learning activities that trigger children's curiosity. Fun and interesting themes, such as "Alive!" (the study of living vs. non-living things), can make learning more personal and relevant for young learners (NIEER, 2007). Implementing such activities in small groups can encourage greater autonomy (Eurydice, 2009; Laevers, 2011) and provides more space for spontaneous or emergent learning (NIEER, 2007). Children's participation is not only important to facilitating effective learning of different curriculum elements but can be important in its own right and foster democratic values. When placing value on children's agency, it is considered important that children are allowed freedom of expression and that their modes of communication are recognised in everyday interactions (Bae, 2009).

Children's perspectives

Research on ECEC curriculum confirms the importance of children's perspectives not only through their participation in activities – but through their active input in decision making (Broström, 2010; Clark *et al*., 2003; Sommer *et al.,* 2010). Evidence suggests that consultation with children (only when age-appropriate and possible) can increase their self-esteem and foster social competence (Clark *et al.,* 2003). It can also help ECEC staff and management reflect on their own practice and aspects, such as the design of indoor and outdoor spaces (Pramling Samuelsson and Asplund Carlsson, 2008).

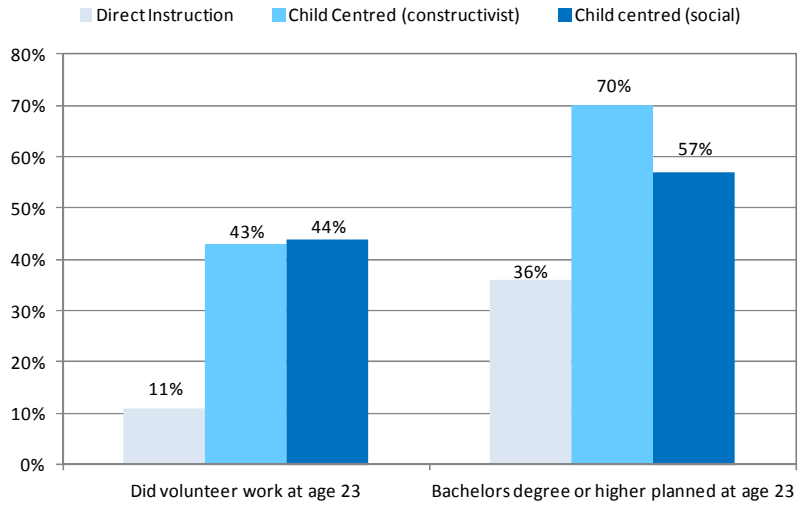
Child-initiated learning

Children learn best when they are active and engaged; when interactions are frequent and meaningful; and when curriculum builds on prior learning (Kagan and Kauerz, 2006; NIEER, 2007). The ability of staff to create a chain of learning events over time with clear direction and concrete activities is also important for consistent development, especially in academic topics (Doverborg and Pramling Samuelsson, 2011).

Evidence suggests that a curriculum with a high level of child-initiated activities can have long-term benefits, including an increased level of community service and motivation to pursue higher education (Figure 1.1).

Figure 1.1. Impact of different curriculum models

On community involvement and motivation to pursue further studies



Notes: Results are from a study of different curriculum models' impact on disadvantaged children in New Jersey. The sample groups are randomly selected and have comparable socio-economic and other background characteristics. "Child centred (constructivist)" is a High/Scope curriculum model, "Child centred (social)" is a Nursery School programme with a focus on social skills. Both curriculum models place stronger weight on child-initiated activities.

Source: Schweinhart and Weikart, 1997.

Teacher-initiated learning

Research demonstrates that teacher-initiated learning (common in the academic approach) can reduce early knowledge gaps in literacy, language and numeracy. Numerous studies have concluded that high-quality academic programmes involving explicit teaching can have positive short-term effects on IQ scores, literacy and math (Pianta *et al*., 2009) (Table 1). These skills have been found to be strong predictors of subsequent achievement (Duncan *et al*., 2007). However, as pointed out above, child-initiated learning can have long-term benefits and is highly important for children's future social development. In order to maximise learning, development and social outcomes, it is suggested that ECEC curricula should combine child-initiated with teacher-initiated contents and activities (Sheridan, 2011; Sheridan *et al*., 2009).

What are the policy implications?

Adapting curricula to local circumstances

A greater extent of local adaptation of curricula can reinforce the relevance of ECEC services. This can be especially important when "national" values or ideas on early childhood development are not shared by all (Eurydice, 2009). Co-constructed responses developed in partnership with teachers, parents, children and communities can greatly enhance the local appropriateness of curriculum aims and objectives (OECD, 2001).

Designing curriculum based on cognitive and neurological science

Cognitive developmental science and neurological research indicate that children learn certain things at particular ages, in a certain sequence. The "peaks" of brain sensitivity may vary across functions/skills as follows (Figure 1.2) (Council Early Child Development, 2010):

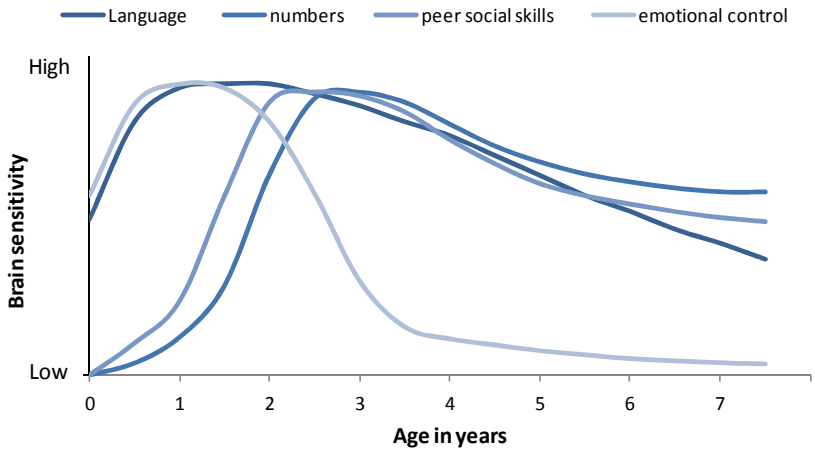
Emotional control and peer social skills

The brain sensitivity to development of emotional control starts from the middle level, increases to the high level from birth to around age one, and declines to the low level where it stays from age four. Peer social skills start with the low level, increase rapidly from ages one to two, gradually decrease and remain at a medium level from age four.

Language and numbers

Language development starts at the middle level, increases to the high level at around ages one to two, slightly decreases towards age four, and will continue to decrease towards the middle and low levels from then on. Numeracy starts with the low level, increases rapidly from ages one to three, gradually decreases but will be maintained at the high level from age four.

Figure 1.2. Sensitive periods in early brain development



Source: Council for Early Child Development (2010).

Recognising the "virtues" of complimentary curriculum models

In practice, comprehensive programmes are thought to better facilitate a child-centred environment where learning builds on existing knowledge from children's perspectives. Children's priorities can be identified in a number of ways, for instance, children can be engaged in taking photographs of the most important "things" in the classroom. Experiments like these have been able to identify the importance of friends, staff, food and outside play. Other information-gathering tools, such as interviews, questionnaires and role-play, reveal that children like to finish their activities and appreciate support for periods of transition between activities (Clark *et al*., 2003). Children can benefit from teacher-led interaction and formal instruction (Eurydice, 2009). However, play-based, as opposed to "drill-and-practice", curricula designed with the developmental needs of children in mind can be more effective in fostering the development of academic and attention skills in ways that are engaging and fun (Brooks-Gunn, 2007).

Considering national characteristics and ECEC structural factors

National characteristics and ECEC structural factors provide insight into the appropriateness of curriculum models. Where staff have little certification and training; and where ECEC provisions are fragmented, staff may benefit from added guidance and a more concrete curriculum. In countries encouraging child-centred activities and giving space to staff to

create local innovations and adaptations, a child-centred model requires practitioners to be adequately qualified and trained to balance wide-ranging (and more abstract) child development areas. Thus, the chosen curriculum must be coupled with adequate staff training, favourable working conditions and appropriate classroom materials (OECD, 2001; 2006).

Ensuring sufficient and appropriate staff training

To enhance children's learning and development, (additional) staff training is needed on curriculum in general, but also on specific areas in which staff might need additional training support, such as multicultural classroom management and adaptation of curriculum contents to diverse linguistic and cultural groups. Furthermore, in a rapidly changing society, knowledge on the use of ICT is becoming more relevant, which can also facilitate early development, especially in reading (Judge *et al*., 2006).

Ensuring curriculum or standards are well-aligned for children aged zero to six and beyond

It is not only important that curriculum standards are present in ECEC environments but that they are well-aligned from ages zero to six, or even beyond: an aligned vision of ECEC content can ensure more holistic and continuous child development.

What is still unknown?

Comparative advantage of different curriculum models

Table 1.1 compares the specific outcomes of "academic" and "comprehensive" curriculum models based on a selection of research findings. It remains unclear which of the two approaches produces the largest long-term benefits on health, college attendance, future earnings, etc. Geographical and political positioning has likely influenced the existing research: American researchers are more likely to support an academic ECEC approach, whereas the trend in Europe points to the importance of non-cognitive learning areas. More research is therefore needed to clarify the mixed research findings across different country-specific ECEC contexts.

Pedagogical strategies to support "play"

Most researchers agree that children's "play" is important for cognitive, social and emotional development. It has been traditionally integrated into subject-based learning, improving literacy, math and science outcomes. However, there is little differentiation between types of "play" (*e.g.*, social, pretend, object) that serve different developmental purposes. A lack of evidence leads many to unfairly separate play ("child-initiated games with no purpose") from curriculum ("teacher-initiated practices with useful benefits") (Bodrova and Leong, 2010).

Non-Western curriculum models and their effects

There is considerable literature on "academic" and "child-centred" curriculum models as seen in North America and Europe. But a Western child-centred curriculum focused on individual benefits can actually contradict other value systems, including those who privilege group interests (Kwon, 2004). Thus, there is a need to research and diffuse alternative national curriculum models that are locally adapted and implemented.

REFERENCES

Aasen, W., L. T. Grindheim and J. Waters (2009), "The outdoor environment as a site for children's participation, meaning-making and democratic learning: examples from Norwegian kindergartens", *Education 3-13: International Journal of Primary, Elementary and Early Years Education*, Vol. 27, No. 1, pp. 5-13.

Amit, M. and H. Ginsburg (2008), "What is Teaching Mathematics to Young Children? A Theoretical Perspective and Case Study", *Journal of Applied Developmental Psychology,* Vol. 29, pp. 274-285.

Aunio, P. and M. Niemivirta (2010), "Predicting children's mathematical performance in grade one by early numeracy", *Learning and Individual Difference*, Vol. 20, pp. 427-435.

Aunola, K., E. Leskinen, M. K. Lerkkanen and J.E. Nurmi (2004), "Developmental dynamics of math performance from preschool to grade 2", *Journal of Educational Psychology*, Vol. 96, No. 4, pp. 699-713.

Bae, B. (2009), "Children's Right to Participate – challenges in everyday interactions", *European Early Childhood Education Research Journal,* Vol. 17, No. 3, pp. 391-406.

Bauer, T., M. Lofstrom, M. and K. F. Zimmermann (2000), "Immigration policy, assimilation of immigrants, and natives' sentiments toward immigrants: Evidence from 12 OECD countries", *Swedish Economic Policy Review*, Vol. 7, pp. 11-53.

Bennett, J. (2004), "Starting Strong Curricula and Pedagogies in Early Childhood Education and Care", Directorate for Education, OECD, Paris.

Bennett, J. (2011), "Introduction: Early Childhood Education and Care", *Encyclopedia on Early Childhood Development*, Centre of Excellence for Early Childhood Development and Strategic Knowledge Cluster on Early Child Development, Montreal, available at: www.child-encyclopedia.com/pages/PDF/BennettANGxp1-Intro.pdf.

Bertrand, J. (2007), "Preschool Programs: Effective Curriculum. Comments on Kagan and Kauerz and on Schweinhart", *Encyclopedia on Early Childhood Development*, Centre of Excellence for Early Childhood Development and Strategic Knowledge Cluster on Early Child Development, Montreal, available at: www.child-encyclopedia.com/documents/BertrandANGxp.pdf.

Björklund, C. (2008), "Toddlers' opportunities to learn mathematics", *International Journal of Early Childhood,* Vol. 40, No. 1, pp. 81-95.

Björklund, C. (2010), "Broadening the horizon: Toddlers' strategies for learning mathematics", *International Journal of Early Years Education,* Vol. 18, No.1, pp. 71-84.

Bodrova, E. and D. Leong (2010), "Curriculum and Play in Early Child Development", *Encyclopedia on Early Childhood Development,* Centre of Excellence for Early Childhood Development and Strategic Knowledge Cluster on Early Child Development, Montreal, available at: www.child-encyclopedia.com/documents/Bodrova-LeongANGxp.pdf.

Broström, S. (2010), "A Voice in Decision Making young children in Denmark" in M. Clark and S. Tucker, *Early childhoods in a changing world*, Stoke-on-Trent, England: Trentham Publisher.

Bybee, R. W. and D. Kennedy (2005), "Math and Science Achievement", *Science*, Vol. 307, No. 5709.

Canadian Council on Learning (CCL) (2006), "Why is High-Quality Child Care Essential? The link between Quality Child Care and Early Learning", *Lessons in Learning*, CCL, Ottawa.

Clark, A., S. McQuail and P. Moss (2003), "Exploring the Field of Listening to and Consulting with Young Children", Research Report No. 445, Thomas Coram Research Unit, University of London.

Council Early Child Development (2010), from the World Bank, Investing in Young Children, an Early Childhood Development Guide for Policy Dialogue and Project Preparation, 2011.

Desforges, C. and A. Abouchaar (2003), "The Impact of Parental Involvement, Parental Support and Family Education on Pupil Achievement and Adjustment: A Literature Review", Research Report No. 433, Department for Education and Skills, London.

Doverborg, E., and I. Pramling Samuelsson (2011), "Early Mathematics in the Preschool Context", in N. Pramling and I. Pramling Samuelsson (eds.), *Educational encounters: Nordic studies in early childhood didactics*. Dordrecht, the Netherlands: Springer, pp. 37-64.

Duncan, G. J., C. J. Dowsett, A. Claessens, K. Magnuson, A.C. Huston, P. Klebanov, L. Pagani, L. Feinstein, M. Engel, J. Brooks-Gunn, H. Sexton, K. Duckworth, and C. Japel (2007), "School Readiness and Later Achievement", *Development Psychology*, Vol. 43, No. 6, pp. 1428-1446.

Eurydice (2009), *Early Childhood Education and Care in Europe: Tackling Social and Cultural Inequalities*, Eurydice, Brussels.

Frede, E. C. (1998), "Preschool program quality in programs for children in poverty", in Barnett, W. S. and S. S. Boocock (eds.), *Early Care and Education for Children in Poverty: Promises, Programs, and Long-term Outcomes*, Buffalo, NY: SUNY Press, pp. 77-98.

Freeman, G. P. (1995), "Modes of immigration politics in liberal democratic states", *International Migration Review,* Vol. 29, pp. 881-902.

Harris, A. and J. Goodall (2006), *Parental Involvement in Education: An overview of the Literature*, University of Warwick, Coventry.

Judge, S., K. Puckett and S. M. Bell (2006), "Closing the Digital Divide: Update from the Early Childhood Longitudinal Study", *Journal of Educational Research*, Vol. 100, No. 1, pp. 52-60.

Kagan, S. and K. Kauerz (2006), "Preschool Programs: Effective Curricula", *Encyclopedia on Early Childhood Development*, Centre of Excellence for Early Childhood Development and Strategic Knowledge Cluster on Early Child Development, Montreal, available at: www.child-encyclopedia.com/documents/Kagan-KauerzANGxp.pdf.

Kunnskapsdepartementet [Norwegian Ministry of Education and Research] (2006), *Rammeplan for Barnehagens Innhold og Oppgaver* [Framework Plan for the Content and Tasks of Kindergartens], available at www.regjeringen.no/upload/kilde/kd/reg/2006/0001/ddd/pdfv/282023-rammeplanen.pdf

Kwon, Y.-I. (2004), "Early Childhood Education in Korea: Discrepancy between National Kindergarten Curriculum and Practices", *Educational Review*, Vol. 56, No. 3, pp. 297-312.

Laevers, F. (2011), "Experiential Education: Making Care and Education More Effective Through Well-Being and Involvement", *Encyclopedia on Early Childhood Development*, Centre of Excellence for Early Childhood Development and Strategic Knowledge Cluster on Early Child Development, Montreal, available at: www.child-encyclopedia.com/documents/LaeversANGxp1.pdf.

Litjens, I. and M. Taguma (2010), *Revised Literature Overview for the 7th Meeting of the Network on Early Childhood Education and Care*, Paris: OECD.

Mellgren, E. and K. Gustafsson (2011), "Early Childhood Literacy and Children's Multimodal Expressions in Preschool", *Educational Encounters: Nordic Studies in Early Childhood Didactics*, Vol. 4, pp. 173-189.

NAEYC and NAECS/SDE (2002), *Position statement "Early Childhood Curriculum, Assessment, and Program Evaluation—Building an Effective, Accountable System in Programs for Children Birth Through Age 8"*, NAEYC, Washington DC.

National Institute for Early Education Research (NIEER) (2006), "Early Literacy: Policy and Practice in the Preschool Years", *Policy Brief*, NIEER, New Jersey.

National Institute for Early Education Research (NIEER) (2007), "Preschool Curriculum Decision-Making: Dimensions to Consider", *Policy Brief*, NIEER, New Jersey.

National Institute for Early Education Research (NIEER) (2009), "Math and Science in Preschool: Policies and Practice", *Policy Brief*, NIEER, New Jersey.

New Zealand Ministry of Education (1996), *Te Whāriki: Early Childhood Curriculum*, available at www.educate.ece.govt.nz/learning/curriculumAndLearning/TeWhariki.aspx.

Nicolopoulou, A. (2010), "The Alarming Disappearance of Play from Early Childhood Education", *Human Development*, Vol. 53, pp. 1-4.

OECD (2001), *Starting Strong I: Early Childhood Education and Care*, OECD, Paris.

OECD (2006), *Starting Strong II: Early Childhood Education and Care*, OECD, Paris.

OECD (2011), "PISA in Focus Nr. 10: What can parents do to help their children succeed in school? ", OECD, Paris.

Philips, D., D. Mekos, S. Scarr, K. McCartney, and M. Abbott-Shim (2000), "Within and Beyond the Classroom Door: Assessing quality in child care centres", *Early Childhood Research Quarterly*, Vol. 15, No. 4, pp. 475-496.

Pianta, R. C., W. S. Barnett, M. Burchinal and K. R. Thornburg (2009), "The Effects of Preschool Education: What We Know, How Public Policy Is or Is Not Aligned With the Evidence Base, and What We Need to Know", *Psychological Science in the Public Interest*, Vol.10, No. 2, pp. 49-88.

Pramling, N. and I. Pramling Samuelsson (2011), *Educational encounters: Nordic studies in early childhood didactics*, Dordrecht, The Netherlands: Springer.

Pramling Samuelsson, I. and M. Asplund Carlsson (2008), "The playing learning child: Towards a pedagogy of early childhood", *Scandinavian Journal of Educational Research*, Vol. 52, No. 6, pp. 623-641.

Prentice, R. (2000), "Creativity: a Reaffirmation of its Place in Early Childhood Education", *the Curriculum Journal*, Vol. 11, No. 2, pp. 145-158.

Schweinhart, L. J. and D. P. Weikart (1997), "The High/Scope Preschool Curriculum Comparison Study Through Age 23", Early Childhood Research Quarterly, Vol. 12, pp. 117-143.

Sheridan, S. (2011), "Pedagogical quality in preschool: A commentary", in N. Pramling and I. Pramling Samuelsson (eds.), *Educational encounters: Nordic studies in early childhood didactics*, Dordrecht, The Netherlands: Springer, pp. 223-242.

Sheridan, S., I. Pramling Samuelsson and E. Johansson (eds.) (2009), "*Barns tidiga lärande. En tvärsnittsstudie av förskolan som miljö för barns lärande*" [Children's early learning: A cross-sectional study of preschool as an environment for children's learning] (Göteborg Studies in Educational Sciences, 284), Göteborg, Sweden: Acta Universitatis Gothoburgensis.

Siraj-Blatchford, I. (2010), "A focus on pedagogy: Case studies of effective practice", in K. Sylva, E. Melhuish, P. Sammons, I. Siraj-Blatchford and B. Taggart (eds.), *Early childhood matters: Evidence from the Effective Pre-school and Primary Education project*, pp. 149-165, London: Routledge.

Siraj-Blatchford, I., K. Sylva, B. Taggart, E. Melhuish, P. Sammons and K. Elliot (2004), "Effective pre-school and primary education", *Primary Practice*, Vol. 37, pp. 28-31.

Siraj-Blatchford, I. and M. Woodhead (2009), "Effective Early Childhood Programmes", *Early Childhood in Focus 4*, Open University, United Kingdom.

Skolverket [The Swedish National Agency for Education] (2006), "Curriculum for the compulsory school, preschool class and the leisure time centre 2011 – Lgr 11", available at www.skolverket.se/publikationer?id=2687

Skolverket [The Swedish National Agency for Education] (2006), *Läroplan för förskolan – Lpfö 98* [Curriculum for the Preschool], available at: http://skolverket.se/publikationer?id=1067

Sommer, P. D., I. Pramling Samuelsson and K. Hundeide (2010), *Child perspectives and children's perspectives in theory and practice*, New York: Springer.

UNESCO (2004), "Curriculum in Early Childhood Education and Care", *UNESCO Policy Brief on Early Childhood,* No. 26, UNESCO, Paris.

UNESCO (2007), "Strong Foundations: Early Childhood Education and Care", *EFA Global Monitoring Report*, UNESCO, Paris.

UNESCO (2010), *Recognizing the Potential of ICT in Early Childhood Education - Analytical Survey*, UNESCO Institute for Information Technologies in Education, Moscow.

Vandenbroeck, M. (2011), "Diversity in Early Childhood Services", *Encyclopedia on Early Childhood Development*, Centre of Excellence for Early Childhood Development and Strategic Knowledge Cluster on Early Child Development, Montreal, available at: www.child-encyclopedia.com/documents/VandenbroeckANGxp1.pdf.

CHAPTER 2

WHERE DOES PORTUGAL STAND COMPARED TO OTHER COUNTRIES?

Portugal's preschool curriculum, the Curriculum Guidelines for Preschool Education or Orientações Curriculares para a Educação Pré-escolar *(*OCEPE*), has balanced content, addressing academic and socio-emotional development; includes emerging subjects, such as ICT and health development; and includes child outcomes for staff support in assessing children's development.*

Capitalising upon its strengths, Portugal could further enhance quality through curriculum. Other country practices would suggest such options as: 1) reflecting on the coverage of the curriculum guidelines and developing guidelines for the zero-to-three years sector; 2) reflecting on the explicit importance of child agency and play; 3) improving explicit alignment with primary schooling; 4) reflecting on content addressing cultural diversity aspects; and 5) further improving communication and dissemination by staff, leadership and teaching management for effective implementation of the curriculum and stimulation of early development.

Portugal's preschool curriculum, the Curriculum Guidelines for Preschool Education or *Orientações Curriculares para a Educação Pré-escolar* (OCEPE), is overall a cogent document that addresses subjects relevant for early cognitive and socio-emotional development. It provides good support for staff in the form of child outcomes and additional support materials for implementation of the guidelines and reaching the curriculum's objectives. It also references what is expected from preschools and staff. Some areas for reflection and consideration regard Portugal's ECEC curriculum guidelines, mainly related to the age coverage of the guidelines and implementation issues, such as communication and leadership skills.

Strengths

Content covering cognitive and socio-emotional subject areas

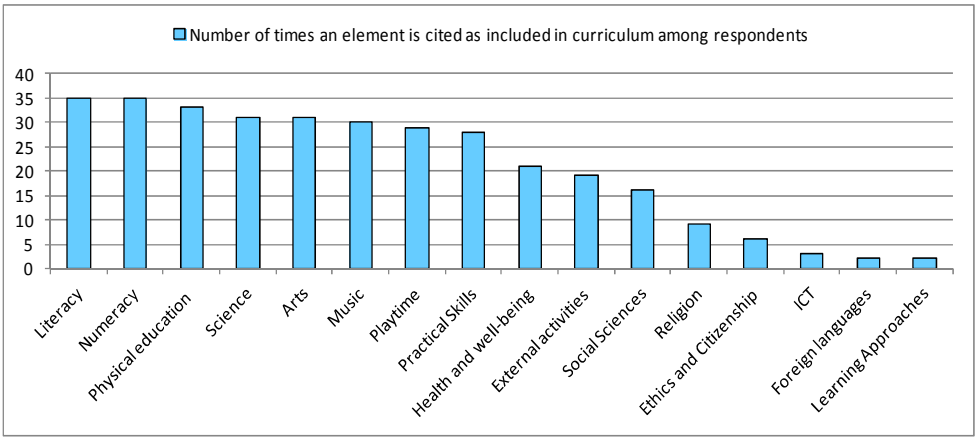
Portugal and its reference countries, Australia and Scotland, believe age-appropriate pedagogy and content is important for child development. Activities ought to be adapted and suitable to children's level of function, current knowledge and understanding. The instruction aims at taking into account the age of children as well as children's cultural, religious, linguistic, socio-economic and ideological background.

There is a wide consensus on the importance of academic skills, such as literacy and numeracy, for children in ECEC: all respondents to the OECD survey, including Portugal, Australia and Scotland, include these two items in their curriculum or framework. Curriculum content relating to natural sciences is included by all countries; and Portugal, Australia and Scotland include "social sciences" (Figure 2.1). Portugal's framework includes academic-based learning subjects, such as literacy and language learning, math and science, and also pays attention to the development of "soft skills" that are related to social development.

"Arts" and "music" are other common subjects included in curriculum frameworks. All countries (including Portugal, Australia and Scotland) include both curriculum areas. They also address practical skills, although not necessarily as a separate subject in itself but integrated in, or interwoven with, other subjects, such as well-being and health.

Portugal, Australia and Scotland do not prescribe "ethics and citizenship" as specific subject areas in their curricula. Although not prescribed as a specific topic, the Portuguese guidelines address the values and principles that should guide ECEC programmes, which are largely based on democratic values and intertwine the teaching of ethics and social values throughout the ECEC period. Additionally, Portugal does not prescribe any instruction or pedagogy on "religion" and neither does Australia; whereas Scotland, along with few other countries like Israel and Ireland, teaches young children about religion.

Figure 2.1. Content areas included in ECEC curriculum[1]



Note: Respondents may list more than one element. See Annex for definitions and methodology for data collection.

Source: OECD Network on Early Childhood Education and Care's "Survey for the Quality Toolbox and ECEC Portal", June 2011.

Mapping or identifying children's needs, development and learning

Curriculum descriptions can generally be categorised into "input"- or "outcome"-based approaches. Among OECD countries, fewer countries specify "child outcomes" and "input from the centres", while most ECEC curriculum frameworks include "input from staff", *i.e.*, specific requirements as to what is expected of ECEC staff (Figure 2.2). While Anglo-Saxon countries, including Australia and Scotland, but also Portugal, favour the outcome-based approach, Nordic countries tend to avoid using the term "child outcomes". By identifying child outcomes or developmental goals, staff can be supported in identifying children's needs, mapping children's development and learning processes.

In comparison to Portugal, the Swedish and Norwegian curriculum frameworks, for example, have a strong focus on input: the values and principles that guide the curriculum and practice, expected inputs from staff, tasks or activities to be carried out by staff, and learning areas to address.

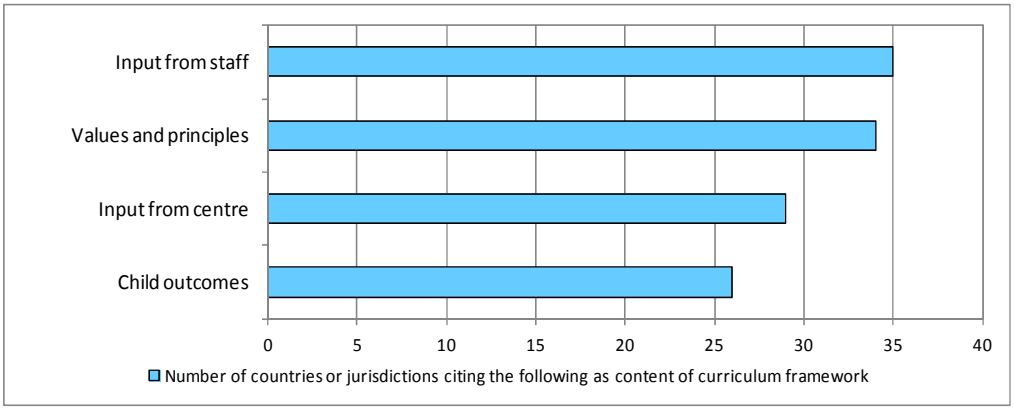
Portugal's guidelines for three-to-six-year-olds, Australia's framework, and Scotland's *Curriculum for Excellence* specify expected child outcomes in addition to input from service providers and staff. Australia focuses herein largely on developmental process outcomes and little on actual child outcomes in terms of what precisely a child should know at a certain age, while Portugal states what children should know or be able to do at a certain age.

However, the outcomes in Portugal function as guidance for staff and not for benchmarking child performance. The outcomes do not exclude any learning experiences not prescribed in the guidelines; rather, they provide a reference framework, which helps clarify, contextualise and organise the work of ECEC staff and the routine in the classroom. Outcomes are stated with a similar purpose in Scotland's *Curriculum for Excellence*, which states that the development of the child is the main responsibility of the ECEC staff. However, much more detail is given (which includes example outcomes for children and staff) in Scotland's *Curriculum for Excellence*.

The Australian framework emphasises that all children learn and develop differently and that expectations of what children learn and at what time need to be flexible – highlighting the importance of the age-appropriateness of activities. Age-appropriateness could be further

emphasised in Portugal's guidelines with different outcomes for children of different ages in preschool, for example.

Figure 2.2. Approaches of ECEC curriculum[2]



Note: Respondents may list more than one content category.

Source: OECD Network on Early Childhood Education and Care's "Survey for the Quality Toolbox and ECEC Portal", June 2011.

Inclusion of ICT – an emerging topic of relevance

Computers and ICT (information and communication technology) have profound potential to impact how people live, learn and work. If used wisely, ICT can foster many benefits, including helping children visualise abstract issues or learn how to read. It also fosters children's technological skills. ICT is becoming an increasing emerging topic, as more households own computers and children are expected to have a certain level of computer literacy when entering the labour market.

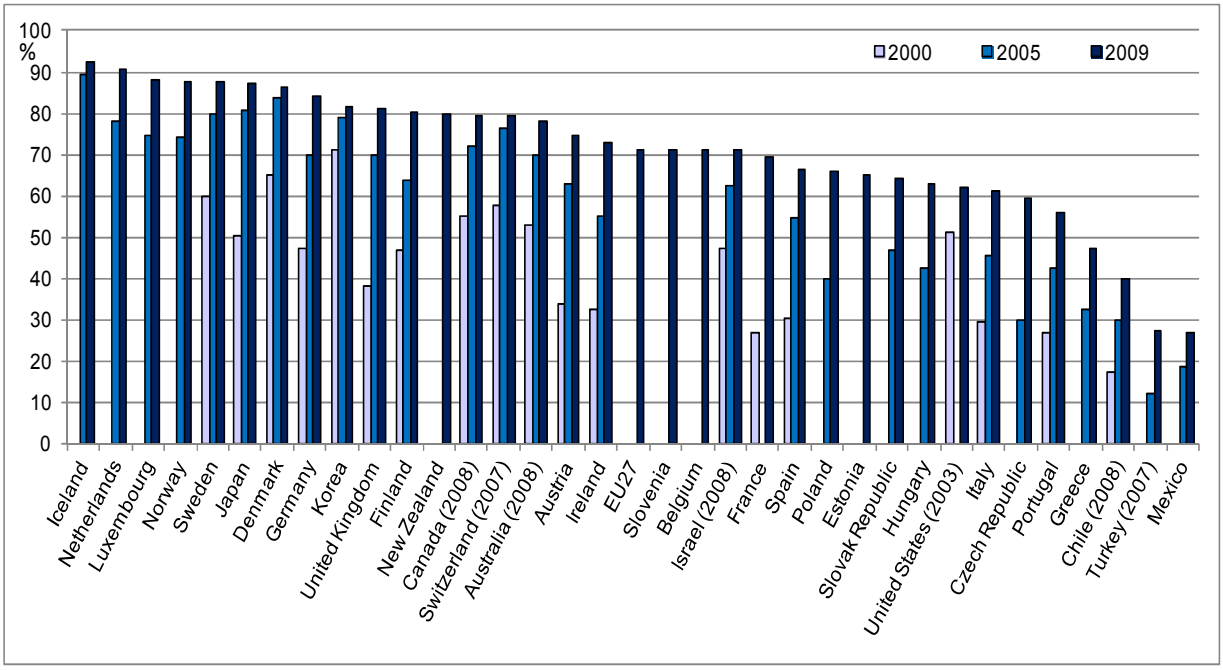
ICT has developed rapidly over the past 40 years and is now a part of our everyday lives. Access to computers at home grew rapidly in OECD countries between 2000 and 2009, although discrepancies can be observed across different countries (Figure 2.3). In Portugal, the availability of home computers in households has doubled in less than 10 years time to close to 60%. In Australia and the United Kingdom, a large majority of households (over or close to 80%) have access to a computer at home.

Among its reference countries, Portugal is unique in addressing the topic of ICT in its guidelines. They include goals for ICT learning and are phrased in ICT literacy skills that children should have acquired by the end of the first cycle of basic education, starting ICT literacy skills in preschool. The purpose of teaching children ICT literacy is to seize the potential ICT can have in enriching learning experiences. In Portugal, ICT is framed under the curriculum area "Information, Communication, Production and Safety" and is therefore interconnected with other forms of communication and information learning.

Neither Australia nor Scotland address development of ICT knowledge and skills in their frameworks, although these are in the curricula for primary and secondary education. While it is not prescribed or addressed in their curriculum documents, individual ECE centres might include it in their own curriculum plan, or computers can be used to teach children specific curriculum learning areas. Scotland's *Curriculum for Excellence* stimulates ECEC centres and schools to "take advantage of the opportunities offered by ICT". Australia's framework encourages the use of different media to support children in their development.

Figure 2.3. The use of ICT

Households with access to a computer at home as percentage of all households



Notes: Generally, data from the EU Community Survey on household use of ICT, which covers EU countries plus Iceland, Norway and Turkey, relate to the first quarter of the reference year. For the Czech Republic, data relate to the fourth quarter of the reference year. *Statlink*: http://dx.doi.org/10.1787/888932321530.

Source: OECD, ICT database and Eurostat, Community Survey on ICT usage in households and by individuals, July 2010.

Addressing health and well-being in curriculum guidelines

Child obesity is one factor that affects child well-being, and it is on the rise in many countries (Figure 2.4). In 2005-06, between 10-30% of 15-year-olds in OECD countries were considered obese, while this was between 8% and 19% five years earlier.

Portugal's obesity rate among 15-year-olds has rapidly increased from just over 10% in 2001-02 to circa 17.5% in 2005-06. This is above the OECD average and higher than in many other OECD countries, including the United Kingdom, Norway, Sweden and Denmark.

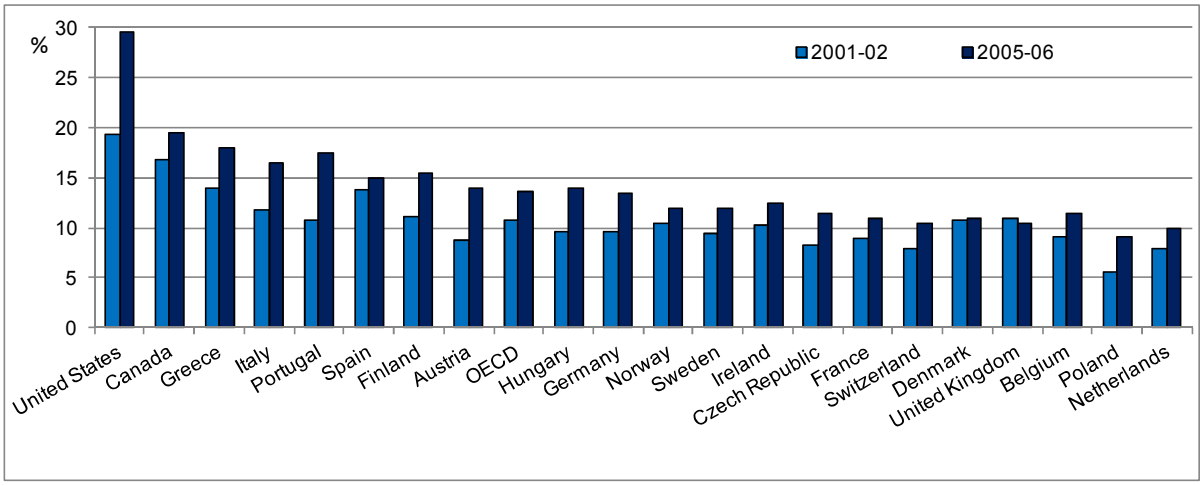
The increase in child obesity rates indicates that families and children have a less healthy lifestyle and might exercise less than a decade ago. Research finds that when children (and parents) are educated about hygiene, health and physical exercise, it improves children's early physical development. To tackle such issues, Portugal addresses topics related to "health and well-being" in its ECEC curriculum. Under the subject of "Personal and Social Education", preschool teachers are supposed to tackle issues related to health and promote healthy nutrition. Additionally, preschool staff have to organise exercises for young children to stimulate global and fine motor skills and body control, which can include sport activities. Australia tackles the issue of health in a similar way as Portugal.

Scotland dedicates a separate curriculum item to "Health and Well-being across Learning", which addresses all aspects involved in being healthy and feeling well, and addresses this more broadly than Portugal. Although Portugal addresses motor and healthy development in its guidelines, Portugal might consider expanding the issue of health and exercise within its guidelines in the (nearby) future to emphasise the growing importance of this item due to

increasing obesity rates as well as providing additional support in teaching health and well-being to preschool staff.

Figure 2.4. Child obesity going up

Percentage of 15-year-olds suffering from obesity



Source: OECD (2009), *Health at a Glance 2009*; OECD Indicators from OECD (2010), *Trends shaping education 2010*.

Provision of support materials for staff

In addition to the Curriculum Guidelines for Preschool Education (*OCEPE*), booklets have been published by the Ministry of Education and Science (*MEC*), which highlight the goals of the five areas taught in preschool and provide pedagogical examples and experiences staff can draw on and use in practice to stimulate children's curiosity and their development. Staff have been trained professionally on the implementation of these booklets as well. Additionally, examples of pedagogical experiences can be found on the Ministry's website, which aims to support staff in implementation of the curriculum.

Australia includes example experiences for staff directly in its framework. For each of the defined outcomes, it gives examples of how to recognise an appropriate level of development at child-level and how educators can promote learning in this area. These examples give clear, practical advice to staff.

Scotland's pre-birth-to-three guidelines include practical case studies, which staff can use for implementation, and explain how to respond to different issues that may arise in child care, such as "what does responsive care include", "how to make a child feel welcome", and "how to observe and reflect". It includes points to consider and self-reflection, which help staff to improve and think about their own actions and pedagogical practices. Additionally, a national implementation guide and accompanying staff support materials have been developed, including a DVD, a CD and a poster, which are relevant for all adults working with and for babies and young children. This pack is issued to all early years establishments; and the interactive online version[3] combines all materials contained in the pack.

Scotland also developed a communication toolkit for staff with tools that address what *Curriculum for Excellence* means at different educational stages. The kit includes ready-made materials, such as posters for use at ECEC centres and schools, a series of leaflets with the summary of a case study from the child's and parent's points of view, a "pupil voice" video and a "practitioner voice" video as well as additional resources and links.

Potential areas for reflection

Curriculum design is a highly political and domestic matter and therefore the international comparison needs to be interpreted with caution. It is important to be reminded that the following potential areas for reflection are identified as a result of desk-based international comparison, without stakeholder's views, such as through a country visit, due to the constraints of the working methods involved.

Curriculum coverage

Portugal operates a "split" system where the Ministry of Labour and Social Solidarity is responsible for child care (zero-to-three-year-olds), while early education is governed by the Ministry of Education and Science (three-to-six-year-olds). Many countries with a split system have created a learning framework for children in the older age bracket of ECEC only: from around age two-and-a-half or three to compulsory schooling. Portugal's Core Curriculum Guidelines for Preschool Education issued by the Ministry of Education and Science covers children aged three to six – the compulsory schooling age in Portugal.

On the contrary, both Scotland's and Australia's frameworks cover a broader age range and aim at providing more integrated services. Australia's *Belonging, Being, and Becoming* framework covers all children attending ECEC (aged zero to six). Scotland's *Curriculum for Excellence* has a strong link with primary schooling: the curriculum covers children aged three to 18 and aligns all curriculum subjects over this age range while ensuring that subject areas are adapted to children's ages. There are staff guidelines for professionals working with the youngest children (pre-birth until age three). Both documents (guidelines and *Curriculum for Excellence*) include age-appropriate sections based on the age and development process of the child. Few countries or jurisdictions cover other levels of education (beyond ECEC) in their curriculum framework as Scotland does, although a growing number of countries and jurisdictions are integrating care and education and, with this, the curricula or frameworks as well – covering the whole ECEC age range.

To ensure a smoother ECEC experience and enhance continuous child development, Portugal is considering developing guidelines for children aged zero to three and aligning these with the existing curriculum guidelines for children aged three to six. However, these guidelines are currently not implemented. To provide a more holistic, integrated early education, Portugal could consider aligning care and education and extending the existing guidelines to cover zero to three years – instead of developing separate guidelines for the care sector.

Figure 2.5. Coverage of ECEC curriculum frameworks or guidelines by age group

	Standards/curriculum for Care
	Standards/curriculum for Education and/or Education and Care
	No standard curriculum is in place for the specified age group
	Compulsory schooling

Age	0	1	2	3	4	5	6	7
Australia	Belonging, Being, Becoming - Early Years Learning Framework for Australia							
Austria								
Belgium (Flemish Comm.)			2.5y Ontwikkelingsdoelen					
Belgium (French Comm.)			2.5y					
Canada (British Columbia)	British Columbia Early Learning Framework for 0-5 year olds					British Columbia Early Learning Framework for 5-6 year olds		
Canada (Manitoba)			Early Returns Curriculum					
						Manitoba Kindergarten Curriculum		
Canada (Prince Edward Island)	Early Learning Framework							
Czech Republic				Framework Educational Programme for Pre-school Education				
Denmark	Preschool curriculum Læreplaner							
Estonia		1.5y Framework Curriculum of Preschool Education						
Finland	National curriculum guidelines on early childhood education						Core Curriculum for Pre-primary education	
France			2.5y National curriculum for école maternelle					
Germany (Baden-Württemberg)	Orientierungsplan für Bildung und Erziehung für die baden-württembergischen Kindergärten						up to 10	
Germany (Bavaria)	Bildung, Erziehung und Betreuung von Kindern in den ersten drei Lebensjahren			Der Bayerische Bildungs- und Erziehungsplan für Kinder in Tageseinrichtungen bis zur Einschulung				
Germany (Berlin)	Berliner Bildungsprogramm für die Bildung, Erziehung und Betreuung von kindern in Tageseinrichtungen bis zu ihrem Schuleintritt							
Germany (Brandenburg)	Grundsätze der Förderung elementarer Bildung in Einrichtungen der Kindertagesbetreuung in Brandenburg							
Germany (Bremen)	Rahmenplan für Bildung und Erziehung im Elementarbereich							
Germany (Hamburg)	Hamburger Bildungsempfehlungen für die Bildung und Erziehung von Kindern in Tageseinrichtungen						up to 15	
Germany (Hesse)	Bildungs- und Erziehungsplans für Kinder von 0 bis 10 Jahren in Hessen						up to 10	
Germany (Mecklenburg-Western Pomerania)	Bildungskonzeption für 0- bis 10-jährige Kinder in Mecklenburg-Vorpommern						up to 10	
Germany (Lower Saxony)	Orientierungsplan für Bildung und Erziehung im Elementarbereich niedersächsischer Tageseinrichtungen für Kinder							
Germany (North Rhine-Westphalia)	Mehr Chancen durch Bildung von Anfang an - Grundsätze zur Bildungsförderung für Kinder von 0 bis 10 Jahren in Kindertageseinrichtungen und Schulen im Primarbereich in Nordrhein-Westfalen						up to 10	
Germany (Rhineland-Palatinate)	Bildungs- und Erziehungsempfehlungen für Kindertagesstätten in Rheinland-Pfalz						up to 15	
Germany (Saarland)	Bildungsprogramm für saarländische Kindergärten							
Germany (Saxony)	Sächsischer Bildungsplan - ein Leitfaden für pädagogische Fachkräfte in Krippen, Kindergärten und Horten sowie für Kinderttagespflege						up to 10	
Germany (Saxony-Anhalt)	Bildungsprogramm für Kindertageseinrichtungen in Sachsen-Anhalt							
Germany (Schleswig-Holstein)	Erfolgreich starten: Leitlinien zum Bildungsauftrag in Kindertageseinrichtungen						up to 15	
Germany (Thuringia)	Thüringer Bildingsplan für Kinder bis 10 Jahre						up to 10	

Figure 2.5. Coverage of ECEC curriculum frameworks or guidelines by age group (continued)

Age	0	1	2	3	4	5	6	7
Hungary				National Core Programme of Kindergarten				
Ireland	Early Childhood Curriculum Framework: Aistear							
Israel				Framework Programme for preschool				
Italy	3 months			Guidelines for the curriculum				
Japan				Course of Study for Kindergarten				
	National curriculum of day care centers							
Korea				National curriculum for kindergarten		Nuri Curriculum		
	Standardized childcare curriculum							
Luxembourg				Le plan d'études				
Mexico	Childcare curriculum			Early childhood education curriculum				
Netherlands			2.5y	Development goals/competences				
New Zealand	Te Whāriki							
Norway	Framework Plan for the Content and Tasks of Kindergartens							
Poland				Core Curriculum for Preschool Education				
Portugal				The Curriculum Guidelines for Pre-School Education				
Slovak Republic				The National Education Programme				
Slovenia		National Curriculum for Pre-school Institutions						
Spain	Early Childhood Curriculum							
Sweden		Läroplan för förskolan Lpfö 98					Läroplan för grundskolan, förskoleklassen och fritidshemmet Lgr 11	
Turkey				Pre-school education programme				
United Kingdom (England)	Statutory Framework for the Eary Years Foundation Stage							
United Kingdom (Scotland)	Pre-birth to three - staff guidelines			Curriculum for Excellence		up to 18		
United States (Georgia)			Georgia's Pre-K Content Standards					
United States (Massachusetts)				Guidelines for Preschool Learning Experiences				
United States (North Carolina)				Early Learning Standards for North Carolina Preschoolers and Strategies to Guide Their				
United States (Oklahoma)				Priority Academic Student Skills				

Notes: For Poland, the compulsory school age was lowered from age seven to six in 2009 with a transition period of three years (until 2012), during which time, parents can choose if their child starts school at age six or seven. For Sweden, *Läroplan för förskolan* is the curriculum for the preschool; *Läroplan för grundskolan, förskoleklassen och fritidshemmet* regards the curriculum for the preschool class, compulsory school and out -of -school centres.

Source: OECD Network on Early Childhood Education and Care's "Survey for the Quality Toolbox and ECEC Portal", June 2011.

Reflection on children's agency and play

Play has many forms of expression and can lead to understanding and friendship across ages and linguistic and cultural barriers. Through playful interactions, foundations for learning and social competence can be made. Through playful interactions with each other, foundations for learning and social competence can be made. While several countries allocate time specific to "play" in their curricula, some indicate that play is embedded into other content areas in order to stimulate learning (Figure 2.1). Portugal, Australia and Scotland include "playtime" as a separate curriculum element.

As previously mentioned, its balanced approach to child development, including its extensive use of play, is recognised as a strength of Portugal. However, the strong recognition of children's agency and appreciation of "being a child" and "learning through play" (especially child-initiated play) that influence many other curricula, such as the Australian framework and the Nordic frameworks, are not necessarily echoed in Portugal's guidelines. While play is included in Portugal's guidelines, children's agency, as well as how to stimulate learning through play, in itself does not receive much attention – at least in its description/documentation.

Research on curriculum approaches indicates that when children are free to choose their activities and initiate play, this can facilitate confident children with a capacity for life-long learning. Scotland's guidelines for zero-to-three-year-olds recognise that play offers opportunities for learning and indicates play is a "powerful tool that promotes children's learning and development". The guidelines address both child-initiated and teacher-initiated play with points for consideration and self-reflection for staff about how play can create effective ways for children to learn and develop. Although it is implicit in the Curriculum Guidelines for Preschool Education (*OCEPE*), Portugal could consider addressing children's agency and child-initiated play more explicitly in the curriculum.

Alignment with primary schooling

Portugal's guidelines and Australia's framework do not provide any explicit practical advice on alignment between ECEC and primary education, although they highlight the importance of a smooth transition between preschool and primary school. On the contrary, in New Zealand's *Te Whāriki* curriculum, explicit links have been made to the primary school curriculum and learning areas for each development strand (or area). These links clearly describe what children are likely expected to do in primary school and how this relates to the experiences in ECEC and what activities staff can implement to facilitate this transition. This can make the transition from one early education provision to another smoother.

Scotland is the only country out of the three (Portugal, Australia and Scotland) whose *Curriculum for Excellence* has a direct link with primary schooling, as the curriculum covers children from ages three to 18 and aligns all curriculum subjects throughout this age range.

To ensure a greater holistic and integrated approach to learning and development, Portugal could consider linking the current existing curriculum guidelines and its outcomes more explicitly with the curriculum content, guidelines and outcomes for primary education.

Reflection on cultural diversity and integration

In almost all OECD countries, the number of foreign-born residents has increased between 1990 and 2010 (Figure 2.6). The size and composition of the immigrant population, as well as the impetus of the increase, vary across countries. The proportion of immigrants in Portugal has nearly doubled during the time period.

The internationalisation of societies imposes high demands on the ability of people to live with and understand values inherent in cultural diversity. Preschools and care centres are important social and cultural meeting places that can reinforce this and prepare children for life in an increasingly internationalised community. Awareness of cultural heritage and learning about the culture of others can contribute to children's ability to understand and empathise with the circumstances and values of others.

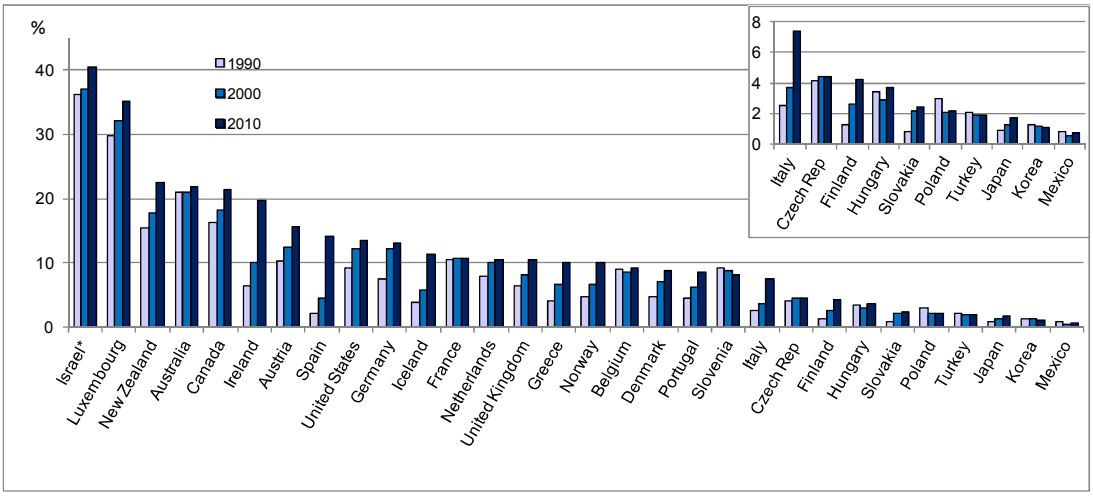
Australia's framework is developed around the idea of "community" and "belonging to a society". It is centred on the recognition of different social and cultural contexts, addressing

the cultural and linguistic diversity of the country's population. Several other frameworks, including the curricula of New Zealand and Norway, pay attention to the importance of recognising and respecting other cultures and different values.

While countries are becoming increasingly multi-cultural with possible issues related to integration or "a feeling of belonging", most countries do not address such subjects in their curriculum. Belonging, however, is a topic that receives great attention in Australia's framework; while in Portugal's guidelines, issues of belonging and multiculturalism do not receive much attention.

Figure 2.6. Immigrant population

Trends of international migrants as a percentage of the total population



Note: International migrants are defined as individuals whose country of birth is not that in which they reside. Statlink: *http://dx.doi.org/10.1787/888932320732.*

Source: United Nations Population Division (2008), International Migrant Stock: The 2008 Revision, online version, http://esa.un.org/migration/index.asp?panel=1, accessed June 2010 from OECD (2010), *Trends shaping education 2010.*

Staff communication skills for effective implementation

Portugal's guidelines indicate it is important for preschool staff to communicate and, preferably, co-operate with the home environment of the child. Parents have the opportunity to be involved in activities in the preschool. Preschool teachers are responsible for ensuring that parents have these opportunities through maintaining on-going dialogues; taking account of parental viewpoints; and informing parents of the development of the child.

In many other OECD countries, parents are also dependent on ECEC staff to hear about the centre's activities, routines in the playroom or teaching, and the curriculum. Professionally developing and training staff members' communication skills can therefore encourage meaningful interactions between staff and between staff and parents with possible beneficial outcomes for both child and staff development.

ECEC staff require strong skills for communicating not only with colleagues on issues arising on the job but also with parents to discuss their child's development. In most countries, ECEC professionals receive some form of training on communication (as in Portugal – Figure 2.7); but there might be a need for more structural training on this, as communication with parents can improve staff's skills to implement curriculum and improve their playroom or teaching practices and skills. Since parental inclusion is recognised by research as an important aspect of stimulating child development, furthering staff skills on how to

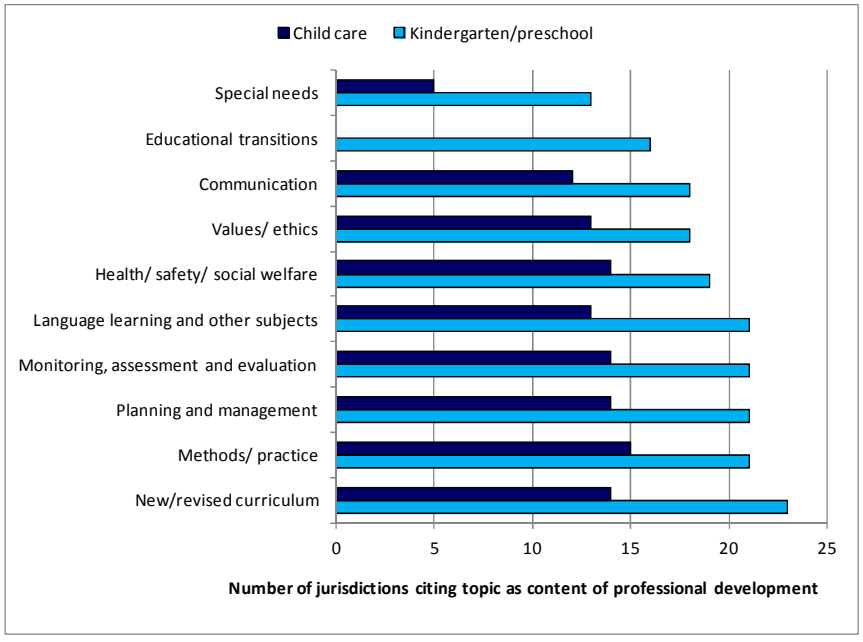
communicate with parents – especially immigrant parents or parents with a low socio-economic background – might be useful for staff in ECEC centres.

Leadership and teaching management for effective implementation

Although there is an increasing need for the development of leadership skills in many OECD countries, leadership has received only intermittent attention by early childhood theorists and researchers. Additionally, there might be a lack of awareness among ECEC staff and managers of the importance of leadership and management skills. However, leadership is of great relevance in ensuring high-quality ECEC provision and good implementation of the curriculum, as leadership strengthens staff performance. Very few countries address the importance of leadership and management in their curricula, and only a small number of countries (including Scotland) indicate what is expected from management in addition to what is expected from ECEC staff.

While staff in Portugal are trained on management and planning during their initial education, and there are possibilities for professional training on this as well, there is little further guidance and support for preschool teachers on leadership and management in their classroom, *i.e.*, how to manage their play-/classroom and conduct leadership. Therefore, mapping staff needs for professional development on leadership and management might be useful, and addressing these needs might be a possible area for reflection. As an example, Scotland's *Curriculum for Excellence* includes information on the importance of kindergarten management and explains the responsibilities of staff. It emphasises the relevant role of management in creating a positive work atmosphere; and it describes the expected tasks and roles of staff.

Figure 2.7. Content of professional development[4]



Notes: Countries were given a range of topics to select from, including the possibility to list topics not mentioned in the selection. Answers indicating "other" without specifying which topic was referred to with "other" are not included in this figure. Countries with an integrated ECEC system who indicated that the subjects of professional development were similar for the whole ECEC sector/ECEC age range: responses have been included in both "child care" and "kindergarten/preschool" since the content of professional development refers to the whole ECEC age range, including ECEC workers with younger children (herein referred to as "child care").

Source: OECD Network on Early Childhood Education and Care's "Survey for the Quality Toolbox and ECEC Portal", June 2011.

NOTES

1 Based on responses from the following countries and regions: Australia, Austria, British Columbia (CAN), Czech Republic, Denmark, England (UKM), Estonia, Finland, Flemish Community (BEL), French Community (BEL), Georgia (USA), Germany, Ireland, Israel, Italy, Korea, Luxembourg, Manitoba (CAN), Massachusetts (USA), Mexico, Netherlands, New Zealand, North Carolina (USA), Norway, Oklahoma (USA), Poland, Portugal, Prince Edward Island (CAN), Scotland (UKM), Slovak Republic, Slovenia, Spain, Sweden and Turkey.

2 Based on responses from the following countries and regions: Australia, Austria, Bavaria (DEU), British Columbia (CAN), Czech Republic, Denmark, England (UKM), Estonia, Finland, Flemish Community (BEL), French Community (BEL), Georgia (USA), Hesse (DEU), Ireland, Israel, Italy, Japan, Korea, Manitoba (CAN), Massachusetts (USA), Mexico, Netherlands, New Zealand, North Carolina (USA), Norway, Oklahoma (USA), Poland, Portugal, Prince Edward Island (CAN), Scotland (UKM), Slovak Republic, Slovenia, Spain, Sweden and Turkey.

3 www.ltscotland.org.uk/earlyyears/prebirthtothree/nationalguidance/index.asp

4 For kindergarten/preschool, based on data from: Australia, Austria, British Columbia (CAN), Czech Republic, England (UKM), Estonia, Finland, Ireland, Israel, Italy, Japan, Manitoba (CAN), Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Prince Edward Island (CAN), Scotland (UKM), Slovak Republic, Slovenia, Spain, Sweden and Turkey. For child care, based on data from: Australia, Austria, British Columbia (CAN), Czech Republic, Finland, Israel, Italy, Japan, Manitoba (CAN), Mexico, Netherlands, New Zealand, Norway, Prince Edward Island (CAN), Scotland (UKM), Spain and Sweden.

CHAPTER 3

WHAT ARE THE CHALLENGES AND STRATEGIES?

Common challenges countries face in enhancing quality in ECEC curriculum are: 1) defining goals and content; 2) curriculum alignment for continuous child development; 3) effective implementation; and 4) systematic evaluation and assessment.

Portugal has made several efforts in tackling these challenges by, for example, involving stakeholders in the design process to ensure stakeholder buy-in; aligning the guidelines with international conventions regarding children's rights; carrying out a study to identify areas in need of materials to support the implementation of the curriculum guidelines by both staff and parents; and evaluating the implementation of the guidelines. To further its efforts, Portugal could consider strategies implemented by Australia, Scotland and other countries, such as developing an integrated curriculum for the entire ECEC age range; linking the ECEC curriculum to other levels of education; including practical examples in the curriculum to support staff and stimulate development at home; and integrating "curriculum" as part of monitoring processes.

This chapter aims to identify alternatives Portugal could consider when facing challenges in curriculum revision and implementation. It first describes common challenges countries are facing. It then presents the different approaches Portugal has been using to tackle the challenges. Lastly, it identifies strategies Australia and Scotland, as well as other OECD countries, have undertaken.

Common challenges

The OECD international survey on quality has identified four common challenges that countries face in designing, revising and implementing a curriculum framework: 1) defining goals and content; 2) curriculum alignment for continuous child development; 3) effective implementation; and 4) systematic evaluation and assessment.

Defining goals and content

When designing a curriculum framework, guidelines or standards, the goals of ECEC have to be defined, as well as the actual content of the curriculum. Defining these is a challenge in many OECD countries due to the different visions of stakeholders on what the curriculum should aim at and include. Policy makers, researchers, ECEC professionals and parents consider different subjects to be important, and each has their own cultural values and ideas about early development. Aligning curriculum goals and contents with the current and future needs of society at large can be challenging, especially with changes, such as increasing migration and advances in information and knowledge economies.

Most countries set out goals, guiding principles and content in their curriculum framework or guidelines, explicitly stating the aims of the country's ECEC services, curriculum, the roles of different actors involved in ECEC, and the subjects prescribed at national level. This is most often a result of intensive consultations with the different stakeholders in ECEC.

Curriculum alignment for continuous child development

Ensuring continuous child development from birth to primary education is a key challenge in countries with a "split system" where child care and early education are administered by different ministries. In these countries, a lack of a curriculum framework for children aged zero to three is often non-existent; or, if it exists, is not aligned with the curriculum for children aged three to six. The rationale of the split system is often attributed to differences between the two sectors, such as historical roots, different goals and focus on contents.

Ensuring smooth transition from ECEC to primary education is also a challenge in integrated systems like in New Zealand, Norway and Sweden. Teaching approaches and practices that children experience are often disconnected in ECEC settings and compulsory schooling.

Effective communication and implementation

Gaining wide support for curriculum and implementation is a challenge faced by many countries. Without "buy-in" from those who are to implement a change or a new idea, any reform may fail. And the "buy-in" or "consensus" cannot be built – without sufficient and strategic consultation – at the implementation stage.

It is also a challenge to implement the change or new idea without support. The kind of support required for effective implementation depends on various characteristics of the staff as well as contexts.

Furthermore, preparing conditions for staff to effectively implement the curriculum is another challenge. Insufficient guidelines and resources are likely to enhance difficulties, especially for inexperienced, new staff or staff with lower qualifications. Certain working environments, such as having too many children to look after, may hinder practising the pedagogy guided in the curriculum.

Monitoring or evaluation of effective implementation at the programme level is another challenge for national governments.

Systematic evaluation and assessment

Determining a curriculum's effectiveness and relevance is challenging for many countries due to a lack of capacity at the policy level for conducting evaluations, collecting valid, informative, credible information and data, and assessment procedures and instruments that combine efficiency and being informative.

Portugal's efforts

Portugal has made several efforts to tackle the challenges.

To better define goals and content

Setting out learning outcomes to support staff

Portugal's Ministry of Education and Science is setting *Learning Outcomes* for preschool education (three-to-six-year-olds). Learning outcomes are acknowledged as the evidence of child performance, and they are defined in terms of child outcomes. They can be used as tools supporting teachers in their everyday work. The *Framework Law of Preschool* states the general objectives of preschool.

Involving stakeholders in the design process to ensure stakeholder buy-in

Portugal's curriculum guidelines for three-to-six-year-olds were developed in a process of broad consultation involving preschool teachers and researchers. Official publication of the Curriculum Guidelines for Pre-School Education was preceded by a long discussion process involving the preparation of three drafts. The first draft was analysed by institutional partners: the Regional Directorates for Education, the Inspector-General of Education, Initial Teacher Training Schools, Teachers' Associations, Teachers' Unions, the Association of Private Education Providers and Parent Associations. A second draft was produced based on comments received from the institutional partners and was distributed among groups of preschool teachers for comments. Teachers were asked to apply the proposed guidelines prior to commenting. Comments from the teachers were incorporated into the final version of the guidelines. Portugal is in the process of developing curriculum guidelines for ages zero to three, in line with the guidelines for ages three to six. Relevant stakeholders, including local authorities, ECEC staff, teacher and parent associations, and researchers are involved in the design process. During a forum in June 2011, debates were organised with stakeholders discussing what should be included in the guidelines for ages zero to three and how the guidelines should be implemented.

Ensuring flexibility for local adaption of the curriculum to meet local needs

Clusters of schools/preschools in Portugal can each develop, based on the national curriculum guidelines, their own "Educational Project" for child development in accordance with the needs of children, parents and the community. For all preschools within the cluster, the adapted guidelines/educational project will be valid, and each preschool should implement this project. Based on the guidelines/educational project of a cluster, each

preschool teacher develops a curricular project for his/her classroom, which is adapted to his/her particular class, background of children and needs of families. All guidelines adapted to local contexts are always based on the national guidelines (*OCEPE*). Additionally, Portugal finds it important that the curriculum guidelines, as a whole or as a particular range of experiences in the programme, are modified if these are not working well to meet the needs of children and the goals of the curriculum.

For better curriculum alignment for continuous child development

Aligning with international conventions regarding children's rights

Portugal's Ministry of Education and Science is setting *Learning Outcomes for all education levels*, aiming at aligning the outcomes for different education levels. Although the implementation of the outcomes will not be mandatory, it is expected that teachers, children, students and families will start using the outcomes and regard them as a useful tool in curriculum implementation and early development. Additionally, the ministry is planning on developing guidelines for zero-to-three-year-olds and aligning them with the existing guidelines for three-to-six-year-olds.

Planning for development of curriculum guidelines for children aged zero to three

Portugal is currently planning to develop curriculum guidelines for children in child care aged zero to three. These guidelines will be aligned with the existing guidelines for children aged three to six. For this, Portugal hosted a Forum in June 2011 in co-operation with the OECD. A wide range of stakeholders attended the Forum, and design and implementation issues were discussed with regard to the plan for developing guidelines for ages zero to three.

For effective communication and implementation

Preparing a guide or handbook for parents and staff

Portugal carried out a study to identify areas in need of materials to support the implementation of the curriculum guidelines. Based on the study, booklets were prepared for teaching literacy, mathematics and experimental science. Additionally, the Social Security Office developed a Guidance Manual for social security nursery care services. The manual gives guidance on implementing curricular practices and advises on pedagogical activities.

The Ministry of Education and Science and the Ministry of Labour and Solidarity published a brochure with guidelines for staff and parents on how to support families and how families are supported by ECEC. The brochure presents information and strategies on how to incorporate socio-cultural development in ECEC and early learning.

For systematic evaluation and assessment

Evaluating the implementation of the curriculum

Portugal has undertaken *Monitorisation and Supervision of Curriculum Development in Preschool Education* (2006). The Directorate General for Innovation and Curriculum Development hired the University of Oporto to carry out a case study with 20 kindergartens to collect data on the quality of actual practices of how the curriculum guidelines have been used. The results of the study are practical, calling for more support materials, teacher training sessions on the assessment methods of children and their learning environments, more documentation, and strategies to facilitate transition to the first cycle of primary education; and they identify target areas, such as experimental science, writing skills and mathematics.

Possible alternative strategies: Lessons from Australia and Scotland

Alternative approaches from Australia and Scotland, as well as other countries, can provide "food for thought" in overcoming challenges.

To better define goals and content

Setting out clear curriculum goals and guiding principles for the whole ECEC age range

In **Australia**, the Council of Australian Governments has developed the *Early Years Learning Framework* (EYLF) *Belonging, Being, and Becoming*[1] in July 2009. It aims to assist educators in providing young children with opportunities to maximise their potential and develop a foundation for future success in learning. In this way, the EYLF contributes to realising the Council of Australian Governments' goal of: "All children having the best start in life to create a better future for themselves and for the nation". The EYLF describes the principles, practice and outcomes essential to support and enhance young children's learning from birth to five years of age. It has a specific emphasis on play-based learning and recognises the importance of communication and language (including early literacy and numeracy) and social and emotional development. Broadly, the framework is set up in line with the Melbourne Declaration on Education Goals for Young Australians, which states that all young Australians should become successful learners, confident and creative individuals, and active and informed citizens.

In **Scotland** (**United Kingdom**), the *Pre-Birth to Three: Positive Outcomes for Scotland's Children and Families*[2] has been developed. The document reflects the principles and philosophy which underpin the *Curriculum for Excellence*[3] for ages three to eighteen. *Pre-Birth to Three* emphasises the importance of family and community engagement. Both curricula emphasise four key capacities: to become successful learners, confident individuals, responsible citizens and effective contributors to society. *Curriculum for Excellence* includes experiences which are planned for children and young people through their education. These experiences are grouped into four categories: curriculum areas and subjects; interdisciplinary learning; ethos and life of the school; and opportunities for personal achievement.

Setting out clear curriculum goals for different age groups

England (**United Kingdom**) specifies, in the *Practice Guide for the Early Years Foundation Stage,* expected goals for different age groups of children. The goals are made age-appropriate to fit the development stage of young children. Goals are established for birth to 11 months; 8 to 20 months; 16 to 26 months; 22 to 36 months; 30 to 50 months; 40 to 60+ months. They are grouped into six categories: dispositions and attitudes; self-confidence and self-esteem; making relationships; behaviour and self-control; self-care; and sense of community.

Including clear attainment targets in the curriculum

Scotland (**United Kingdom**) clearly prescribes in its *Curriculum for Excellence* what children should know and experience at different educational levels. The outcomes and experiences[4] are designed based on eight different subject areas, including expressive arts, health and well-being, languages, mathematics, religious and moral education, sciences, social studies and technologies. Taken as a whole, the experiences and outcomes differ per age group and embody the attributes and capabilities each child should achieve.

England (**United Kingdom**) covers six areas within the early learning goals of the *Early Years Foundation Stage*: personal, social and emotional development; communication, language and literacy; problem solving, reasoning and numeracy; knowledge and

understanding of the world; physical development and creative development. Each area is described in terms of what children should know and be able to do by the end of the Early Years Foundation Stage – before attending primary schooling.

The *Early Years Learning Framework* of **Australia** is outcome-based. The goals are designed to capture the integrated and complex learning of all children and include the following five goals and outcomes: 1) children should have a strong sense of identity, 2) children are connected with and contribute to their world, 3) children have a strong sense of well-being, 4) children are confident and involved learners, and 5) children are effective communicators.

Reviewing or analysing the curriculum to improve relevance

ECEC staff in **Scotland** (**United Kingdom**) found their previous curricula for ages three to five and five to fourteen too descriptive – leaving insufficient room for local adaptation. Therefore, the curricula were revised, which resulted in a curriculum for children aged three to eighteen with less descriptive outcomes and practices.

Many ECEC workers in **England** (**United Kingdom**) found the *Early Years Foundation Stage* (EYFS) too prescriptive, leaving insufficient room for innovation. Therefore, a review of the EYFS was conducted in 2010-11 to consider how the framework could be simplified, clarified and made less prescriptive. The review also recommended revising the EYFS to improve its accessibility to parents, and to promote action to respond to children progressing slower than expected.

Supporting local initiatives in setting up their own curriculum

In **Australia**, the *Early Years Learning Framework* is designed to guide early childhood educators in developing effective early childhood programmes. It is expected that, following a period of familiarisation, each early childhood service will develop their own strategy to implement the framework, taking their own unique context into consideration.

Staff in **Scotland** (**United Kingdom**) can set up their own curriculum to meet local or special development needs. The *Curriculum for Excellence* is less detailed and prescriptive than previous curriculum advice and can therefore be used as a basis for centres in setting up their own curriculum. It provides professional space for teachers and other staff to use in order to meet the varied needs of all children and young people.

Each ECEC service in **New Zealand** develops its own curriculum, based on the early childhood curriculum, *Te Whāriki*, to meet the needs of its children, families, the specific setting and the local community. All curricula should be based on the principles of the early childhood curriculum and be planned in terms of the curriculum's strands and goals. *Te Whāriki* is designed to be adapted to local circumstances and children's special needs. Additionally, each curriculum should include aspects of the Māori language and culture to stimulate early knowledge and respect for the indigenous culture. Therefore, *Te Whāriki* is bilingual and protects the culture and language of the Māori.

For better curriculum alignment for continuous child development

Aligning curriculum with broader quality goals and assessment practices

In **Australia**, educational programmes and practice in ECEC, including the implementation of the *Early Years Learning Framework*, is one of the National Quality Standards[5] in the National Quality Framework. ECEC provisions are assessed on their curriculum practices, which should be in line with the broader quality goals of the National Quality Framework.

This ensures delivery of nationally consistent and high-quality early childhood education programmes and practice across sectors and jurisdictions.

In **Norway**, **Sweden** and **Scotland** (**United Kingdom**), the curricula are aligned with international conventions, such as the United Nations Convention on the Rights of the Child (1989). In Scotland, these rights are one of the four key principles of the National Pre-Birth to Three Guidance. The legislative framework of Norway (the Kindergarten Act and the *Framework Plan for the Content and Tasks of Kindergartens*) states the expectations concerning the quality of kindergartens, including conditions for learning and well-being. Norway introduced a section in the Act giving "Children in kindergarten (...) the right to express their views on the day to day activities of the kindergarten". This is followed up in the framework plan for kindergarten. Children are seen as subjects or agents in their own right who should be met with respect in their diverse forms of communication.

England (**United Kingdom**) developed the *Early Years Foundation Stage* (EYFS) as a central part of the ten-year child care strategy *Choice for Parents, the Best Start for Children* and the *Childcare Act 2006*. The Act provides context for the delivery of the EYFS; and taken together with the other elements of the strategy, the EYFS will be central to the delivery of new duties on improving outcomes and reducing inequalities.

Adopting a unified curriculum for care and early education

Australia's Early Years Learning Framework *Belonging, Being, and Becoming* is developed for children from birth to age five and transition to compulsory schooling.

New Zealand's curriculum, *Te Whāriki*, has been developed for children from birth to school entry. However, to ensure the framework is age-appropriate, the content is made for three different age groups within ECEC: infants (birth to eighteen months), toddlers (one to three years), and young children (two-and-a-half to school entry age).

England (**United Kingdom**) developed the *Early Years Foundations Stages* for ages zero to five, replacing three earlier frameworks for different age groups (*Curriculum Guidance for the Foundation Stage*; *Birth to Three Maters*; and *National Standards for Under 8 year-olds*).

Aligning ECEC curriculum with other levels of education

Curriculum for Excellence is **Scotland**'s (**United Kingdom**) curriculum for children and young people ages three to eighteen. It replaces the Curriculum Framework for Children 3-5 and the 5-14 curriculum to ensure continuous development. Additionally, *Curriculum for Excellence* builds on the foundations developed in the critical years of pre-birth to three which is supported by the new *Pre-Birth to Three* national guidance[6].

New Zealand's *Te Whāriki* curriculum is linked to the country's Curriculum Framework for schools. The principles in the school curriculum are integrated into *Te Whāriki a*s well. For each of the strands of the ECEC curriculum (well-being, belonging, contributions of children, communication and exploration), links have been made with the learning areas and skills in the school curriculum in order to smoothen the transition from preschool to primary school.

For effective communication and implementation

Involving different parties in the design or feedback process

Australia involved ECEC bodies and organisations in the design process and prepared a national implementation plan of the *Early Years Learning Framework*. All states and territories agreed to follow the plan in their respective jurisdictions using an additional range

of strategies. With stakeholders involved in the design process, the framework had their support upon implementation.

In **Scotland** (**United Kingdom**), anyone with an interest in education was invited to be part of the feedback and revision process of the *Curriculum for Excellence*. The draft experiences and outcomes were published online and were accompanied by an online questionnaire for individuals, groups, schools and organisations to use to feed back their thoughts and views. Additionally, 37 focus groups were held, covering each curriculum area and involving practitioners, senior education managers, representatives from professional bodies, industry, parents and learners to discuss the draft experiences and outcomes. The University of Glasgow was commissioned to analyse the feedback on the draft experiences and outcomes.

Piloting before implementing nation-wide/state-wide

In **Australia**, the draft *Early Years Learning Framework* and its supporting documentation were trialled in 28 case study sites across Australia from February-April 2009 to test the Framework and its application in early childhood settings prior to implementation. The sites represented a wide variety of early childhood settings and services, including preschools, early childhood settings on school sites, Long Day Care Centres, Family Day Care, Multipurpose Aboriginal Children's Services, early intervention and occasional child care in metropolitan, regional and remote settings.

More than 600 early years establishments and schools in **Scotland** (**United Kingdom**) took part in a formal trialling process to test specific experiences and outcomes from the *Curriculum for Excellence* in practice across all curriculum areas. Schools and centres chose experiences and outcomes to trial based on their planned programmes of work. They submitted reports containing detailed feedback, which was used to inform the revision process.

Providing "practical" support materials

Early Childhood **Australia**, the peak national, non-profit, non-government early childhood advocacy organisation in Australia, was contracted to develop support materials for ECEC centres and staff. All materials were developed with an Early Years Learning Framework (EYLF) and Educators' Guide to the EYLF focus. The guide consists of two parts: the first focuses on curriculum decision-making, promotes reflective practice and inquiry and provides best practice examples and case studies; the second contains educators' stories and models of their plans for the outcomes of children's learning with questions to provoke thinking and generate discussion relative to the principles, practice and outcomes of the EYLF. The Department of Education, Employment and Workplace Relations developed a Remote Indigenous Professional Development support package for the EYLF, which includes a DVD, a book, a set of 50 cars to support learning outcomes, a set of posters and a CD ROM, to benefit locally engaged Indigenous staff.

Scotland's (**United Kingdom**) *Pre-Birth to Three*[7] includes practical case studies which staff can use for implementation. Additionally, a national implementation guide and accompanying staff support materials have been developed, including a DVD, a CD and a poster that are relevant for all adults working with and for babies and young children. This pack is issued to all early years establishments; and the interactive online version[8] combines all materials contained in the pack. A communication toolkit was developed for staff with tools that address what *Curriculum for Excellence* means at different educational stages. It includes ready-made materials, such as posters for use at ECEC centres and schools, a series of leaflets with the summary of a case study from the child's and parent's points of view, a "pupil voice" video and a "practitioner voice" video as well as additional resources and links.

The Department for Children, Schools and Families in **England** (**United Kingdom**) developed a *Practice Guidance* for the *Early Years Foundation Stage* (EYFS) booklet. It includes non-statutory guidance, information on the areas of learning and development, and advice to professionals. Additionally, a CD-ROM and posters have been distributed to practitioners and providers with information on EYFS, providing implementation support.

Revising initial education and designing and providing demands-driven training

Early Childhood **Australia**, a non-profit, non-government early childhood advocacy organisation, was contracted to provide nationwide training for early childhood educators in the implementation of the *Early Years Learning Framework* (EYLF). An online forum, master classes and an online newsletter about the framework have been developed as well. Australia also introduced the framework into undergraduate courses. Additionally, the network of Professional Support Coordinators, Indigenous Professional Support Units and Inclusion Support Agencies in each state provided EYLF support and training to early childhood educators.

In **England** (**United Kingdom**), the Department for Education is co-operating with ECEC providers to develop appropriate training on curriculum for ECEC staff. The *National Strategies* were contracted to deliver targeted training, *e.g.*, on early language development, to build consultancy support at the local level through local authorities. Early Years Consultant Teams were set up to support providers, including hands-on training to develop skills and qualifications in the workforce. Training videos were also distributed to staff.

Providing expert assistance to ECEC providers

In **Australia**, the Professional Support Coordinators (PSC) and the Indigenous Professional Support Unit (IPSU) networks in each state and territory are funded by the Australian Government to deliver training and mentoring services to ECEC services to support their implementation of the Early Years Learning Framework (EYLF). The Early Years Learning Framework Professional Learning Programme (EYLF PLP), developed for the Government by Early Childhood Australia, also provides ongoing professional support and assistance to services as they engage in the EYLF implementation process. The programme is a national initiative that started in 2010 and continues through 2011. As part of this programme, ECEC professionals have access to an online interactive EYLF PLP Forum[9] where they can raise questions, share ideas and interact with other educators implementing the EYLF. High-calibre early childhood experts and practitioners from across Australia are available on the Forum to respond to questions and conduct topical discussion – about issues raised by experts and practitioners via the Forum and the national workshop programme – regarding implementation of the EYLF.

Improving working conditions to stimulate effective implementation

Australia is progressively implementing changes to staff-child ratios which should contribute to effective curriculum implementation. In January 2012, Australia started with the new 1:4 ratio for children from birth to two years.

Informing stakeholders about curriculum change through seminars and meetings

In **Scotland** (**United Kingdom**), ECEC staff members were informed about curriculum changes at meetings, events and seminars. Providers organised meetings for parents and explained the *Curriculum for Excellence* via PowerPoint presentations[10], developed by Teaching and Learning Scotland.

Communicating with parents through the use of the internet or practical materials

Australia distributed information[11] about the *Early Years Learning Framework* for families and made this information available online in 20 languages[12].

In **Scotland** (**United Kingdom**), templates[13] to support staff in creating or customising materials for communicating with parents are available online. Learning and Teaching Scotland[14], a non-departmental public body, also developed information sheets for parents on the importance of different curriculum subjects, including literacy, mathematics, transitions between different education systems and outdoor learning. In addition to this, a series of posters were distributed to providers, which can be used to raise awareness among parents about the *Curriculum for Excellence* for the early years.

For systematic evaluation and assessment

Evaluating/reviewing the curriculum framework linked to quality improvement

In **Australia**, a planned baseline study will establish a baseline of data on ECEC practice prior to the requirement to use the Early Years Learning Framework under the National Quality Framework from 1 January 2012. Evaluation of the Early Years Learning Framework will occur in 2014 with an aim to determine its effectiveness in raising the quality of ECEC.

England (**United Kingdom**) started an independent review of the Early Years Foundation Stage (EYFS) reported in 2011. The government then consulted on its proposals for a revised EYFS and plans to implement in September 2012. The revised EYFS is simpler, clearer and less prescriptive. The government also proposes to improve the framework's accessibility to parents and to promote action to respond to children progressing slower than expected.

Integrating "curriculum" as part of monitoring process

In **Australia**, from July to November 2010, a new assessment and ratings process was developed and implemented within around 200 education and care services across the country. These will be assessed against the *National Quality Standards* and will be given a provisional rating. Communications and support materials have been developed for the sector and staff to support implementation of the new assessment and ratings process, including training manuals and operational guidelines. Self-evaluation kits for ECEC staff members have also been developed and distributed to all centres.

In **Scotland** (**United Kingdom**), assessment is one of the strands of work in implementing *Curriculum for Excellence* and *Pre-Birth to Three*. As part of assessment, self-evaluations have been set up in centres as well as monitoring standards and outcomes over time. The framework of quality indicators set out in *How Good is Our School?* and *Child at the Centre* provides a focus for self-reflecting on professional practice and curriculum for improvement in schools and centres. Additionally, external inspections are organised to monitor curriculum and practices. The government is working with education authorities and other partners to develop processes for sharing assessment information so that education authorities can use the data to learn about the work of their schools and centres and, where appropriate, support changes in curriculum.

NOTES

1 www.deewr.gov.au/Earlychildhood/Policy_Agenda/Quality/Documents/Final%20EYLF%20Framework%20Report%20-%20WEB.pdf

2 www.ltscotland.org.uk/earlyyears/prebirthtothree/nationalguidance/index.asp

3 www.ltscotland.org.uk/understandingthecurriculum/whatiscurriculumforexcellence/

4 www.ltscotland.org.uk/Images/all_experiences_outcomes_tcm4-539562.pdf

5 www.deewr.gov.au/Earlychildhood/Policy_Agenda/Quality/Pages/home.aspx

6 www.ltscotland.org.uk/earlyyears/prebirthtothree/index.asp

7 www.ltscotland.org.uk/earlyyears/prebirthtothree/nationalguidance/index.asp

8 www.ltscotland.org.uk/earlyyears/prebirthtothree/nationalguidance/index.asp

9 http://forums.earlychildhoodaustralia.org.au/forum.php

10 www.ltscotland.org.uk/resources/c/genericresource_tcm4628047.asp?strReferringChannel=understandingthecurriculum&strReferringPageID=tcm:4-627954-64

11 www.deewr.gov.au/EarlyChildhood/Policy_Agenda/Quality/Documents/EYLFFamiliesGuide_A4_170909.pdf

12 www.deewr.gov.au/Earlychildhood/Policy_Agenda/Quality/Pages/EarlyYearsLearningFramework.aspx

13 www.ltscotland.org.uk/understandingthecurriculum/whatiscurriculumforexcellence/toolkit/makeyourown.asp

14 www.ltscotland.org.uk/aboutlts/whoweare/

ANNEX. DEFINITIONS AND METHODOLOGY

A **curriculum framework** (**guidelines** or **standards**) is a tool which can guide the content of and approach to children's care and learning.

Curriculum contents can be organised into subject elements or areas. ECEC elements or subject areas highlight priorities and clarify how care, pedagogies and teachings are organised. In the OECD Network on ECEC's "Survey for the Quality Toolbox and ECEC Portal", countries were asked to choose from a list of nine ECEC elements or subject areas:

Literacy: refers to all subjects related to reading and writing, including language learning and development, and word recognition.

Numeracy: refers to all subjects related to numbering and counting, including calculations, number recognition, spaces and shapes.

Science: refers to all scientific subjects, such as geography and natural science.

Arts: refers to all subjects related to some form of art, including drawing, colouring, painting and handicrafts.

Music: refers to all subjects involving music, such as singing, playing musical instruments and dancing to music.

Physical education: refers to all instructed subjects that require physical effort or are related to physical well-being, such as gymnastics, sports and classes about food or hygiene.

Practical skills: refers to all practices related to practical skills not mentioned in one of the other subjects (*e.g.*, tying shoe-laces).

Playtime: refers to the time children can play freely, *i.e.*, child-initiated play: the time that a child can decide for him- or herself what he/she wants to do and play with (inside or outside).

Activities outside ECEC institutions (external activities): refers to field trips, such as outings to museums, public parks, libraries, concerts, and art and science centres.

There were an additional seven subject areas identified by countries/regions, including religion, ethics and democratic citizenship; health, personal and/or social well-being; social sciences and/or inter-cultural education; ICT; languages (foreign); and learning approaches.

The findings presented here are based on data from the OECD Network on ECEC's "Survey for the Quality Toolbox and ECEC Portal" (2011). For each graph and table, the countries or regions for which data is used are listed.

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

The OECD is a unique forum where governments work together to address the economic, social and environmental challenges of globalisation. The OECD is also at the forefront of efforts to understand and to help governments respond to new developments and concerns, such as corporate governance, the information economy and the challenges of an ageing population. The Organisation provides a setting where governments can compare policy experiences, seek answers to common problems, identify good practice and work to co-ordinate domestic and international policies.

The OECD member countries are: Australia, Austria, Belgium, Canada, Chile, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The European Union takes part in the work of the OECD.

OECD Publishing disseminates widely the results of the Organisation's statistics gathering and research on economic, social and environmental issues, as well as the conventions, guidelines and standards agreed by its members.

Quality Matters in Early Childhood Education and Care

PORTUGAL

Early childhood education and care (ECEC) can bring a wide range of benefits – for children, parents and society at large. However, these benefits are conditional on "quality". Expanding access to services without attention to quality will not deliver good outcomes for children or long-term productivity benefits for society.

This series of country reports focuses on quality issues. Each report tackles a specific theme that was selected by the country reviewed. These reports suggest strengths and point to areas for further reflection on current policy initiatives.

Contents

Please cite this publication as:
OECD (2012), *Quality Matters in Early Childhood Education and Care: Portugal 2012*, OECD Publishing.
http://dx.doi.org/10.1787/9789264176720-en

OECD*publishing*
www.oecd.org/publishing

ISBN 978-92-64-17672-0
91 2012 12 1 E