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Early Childhood Education and Care: Working Conditions and Training Opportunities

Abstract

[Excerpt] The aim of this working paper is to provide information about the working conditions and in-service training opportunities of early childhood education and care (ECEC) workers and to describe how these factors are linked to outcomes for children. This paper is part of the research project 'Assessing childcare services' being carried out by Eurofound in 2013 and 2014. The project focuses on the two dimensions of early childhood education and care that have been the main focus of policy initiatives at European level: ensuring that services are accessible and that they are of good quality. This is the main message of the 2011 Council of the European Union conclusions on early childhood education and care; it is also one of the main messages of the 2013 European Commission recommendation 'Investing in children: Breaking the cycle of disadvantage'.

Keywords

childhood education, childcare, employment, working conditions, training

Comments

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Authors: Daniel Molinuevo, Daphne Ahrendt, Adi Buxbaum (Austrian Federal Chamber of Labour) and Winfried Moser (Austrian Institute for Children’s Rights and Parent Education)

Research managers: Daniel Molinuevo and Daphne Ahrendt

Eurofound project: Assessing childcare services in Europe

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Introduction

The aim of this working paper is to provide information about the working conditions and in-service training opportunities of early childhood education and care (ECEC) workers and to describe how these factors are linked to outcomes for children. This paper is part of the research project ‘Assessing childcare services’ being carried out by Eurofound in 2013 and 2014. The project focuses on the two dimensions of early childhood education and care that have been the main focus of policy initiatives at European level: ensuring that services are accessible and that they are of good quality. This is the main message of the 2011 Council of the European Union conclusions on early childhood education and care; it is also one of the main messages of the 2013 European Commission recommendation ‘Investing in children: Breaking the cycle of disadvantage’.

Eurofound aims to provide research evidence about what works in terms of increasing the quality and accessibility of services. Quality is the main focus of research activities in 2013, while accessibility is the focus in 2014.¹

There are several means to achieving quality in early childhood education and care. The OECD’s ‘quality toolbox’ for early childhood education and care lists the following five: setting out quality goals and regulations; designing and implementing curriculum and standards; improving qualifications, training and working conditions; engaging families and community; and advancing data collection, research and monitoring (OECD, 2012d). In this research project, Eurofound focuses on training and working conditions, as improving working conditions is one of the priority areas for Eurofound research activities in the period 2013–2016. Another priority area is improving standards of living and promoting social cohesion in the face of economic disparities and social inequalities. Ensuring access, quality and sustainability in public services is one of the cluster themes of Eurofound’s 2013–2016 work programme. This research project provides information on these issues by looking at the impact of early childhood education and care on outcomes for children.

Eurofound initiated a systematic review – a review of research literature that follows a systematic methodology – in 2013 (to be completed in 2014) to analyse how the working conditions and training opportunities of ECEC staff relate to the interactions between staff and children and outcomes for children, with the aim of synthesising the findings of primary research studies in Europe. This paper complements that review by summarising findings from five other systematic reviews.

The paper also provides up-to-date information about the working conditions and training opportunities of ECEC staff in five Member States: Austria, Germany, Ireland, the Netherlands and Spain. These countries have fairly well-developed ECEC systems in terms of coverage and different degrees of centralisation of ECEC services. They were not covered in the OECD ‘Quality matters in early childhood education and care’ country reports, but they were countries about which the research team was able to gather recent information regarding the current situation of workers and the latest policy initiatives.

Poor pay, lack of career progression and lack of training opportunities are some of the recurrent issues in this sector. As the research literature presented here shows, this is the case even in countries with relatively well-developed ECEC systems. Despite the public discourse highlighting the importance of services for young children and the vast amount of research underpinning this message, the working conditions of ECEC staff do not reflect the recognised importance of the early development of children (OECD, 2006). It is therefore important to make a case for investing in the workforce by showing the current situation and by providing evidence of the impact of adequate working conditions and training opportunities on the quality of services, in relation to interactions between staff and children and child development.

¹ During 2014, Eurofound will analyse how services can be made more accessible and inclusive for children who require greater support, looking at examples of good practice in services for children who are faced with greater challenges, such as those associated with income, neighbourhood, disability, learning difficulties and ethnic background.

Working conditions and training in the EU policy agenda

The interest of European institutions in early childhood education and care originates in its importance for work–life balance, equal opportunities and access to the labour market. The 1992 Council recommendation on childcare highlighted its relevance for the reconciliation of work and family life and included a mention of childcare workers, calling for initiatives that ‘ensure due recognition [...] to persons engaged in childcare services as regards the way in which they work and the social value of their work’. It also asked Member States to ensure that the training of workers in childcare services is adequate to the nature of their tasks (Council of the European Communities, 1992).

In 1996, the European Network on Childcare proposed a series of recommended targets to measure progress in achieving the Council’s recommendations over a period of 10 years. These 40 targets addressed the policy framework, financial targets, the levels and types of services, education, staff–child ratios, staff employment, environmental and health targets, targets for parents and performance targets (European Commission Network on Childcare, 1996).

In addition to these targets, in 2002, Member States adopted targets in childcare provision for 2010 at the Barcelona European Council in order to remove barriers to women’s participation in the labour market. According to the Barcelona targets, Member States needed to provide formal childcare for at least 90% of children aged between three years and the mandatory school age and for at least 33% of children aged under three years (European Council, 2002). In 2011, six Member States had achieved both objectives (Belgium, Denmark, France, Slovenia, Sweden and the UK). Luxembourg, the Netherlands, Portugal and Spain had achieved the target for children under three years of age, while Germany, Italy and Estonia had achieved the target for children aged between three years and the mandatory school age. Austria and Ireland had achieved around 80% coverage of children aged from three years to the mandatory school age (European Commission, 2013c).

It is clear that the main issues for the EU, up until that point, were increasing access to services and creating more childcare places in order to facilitate parents’ entry to the labour market. However, quality featured strongly as an issue of concern in the European Commission’s 2011 communication and the European Council’s conclusions on early childhood education and care in the same year. Both documents stated that the child and its family were at the centre of their policy considerations, which constitutes an important shift in policy focus (European Commission, 2011; Council of the European Union, 2011). More recent policy initiatives in this area also go beyond issues of work–life balance and link the improvement of ECEC services to tackling child poverty and reducing inequality (Social Protection Committee, 2012; European Commission, 2013a).

The Commission recommendation ‘Investing in children: Breaking the cycle of disadvantage’ advocates investing in ECEC services by highlighting their importance in reducing inequalities at a young age. It calls for incentivising ‘the participation of children from a disadvantaged background [...], regardless of their parents’ labour market situation’ (European Commission, 2013b, p. 6). Greater attention is also given to its importance in relation to further stages in the education process (European Commission, 2013a). One of the benchmarks of Education and Training 2020 (ET2020), the new framework for European cooperation in education and training, is increasing participation ‘as a foundation for later educational success’: by 2020, at least 95% of children aged between four years and the age for starting compulsory primary education should participate in early childhood education and care.

The importance of training and working conditions in delivering high-quality ECEC services has increasingly been reflected in the policy debate at European level, mainly in relation to the need for qualified staff in order to ensure good-quality services and the challenges associated with attracting the right people to the sector. The 2006 European Commission communication on efficiency and equity in European education and training systems points out the long-term returns of early childhood education and states that ‘the supply of specially trained pre-primary teachers will need

to be improved in many countries' (European Commission, 2006). The need for better training, pay and working conditions for staff and the challenge of attracting and retaining suitably qualified staff are also reflected in the conclusions of the 'European symposium on improving early childhood education and care' (Early Matters, 2008). In relation to policy issues, the Council conclusions on early childhood education and care from May 2011 identified the need for policy cooperation among Member States to promote the professionalisation of ECEC staff and to develop policies to attract, educate and retain suitably qualified staff for early childhood education and care.

Since 2012, a thematic working group on early childhood education and care, set up by the European Commission, is working towards establishing a European quality framework for these services in 2014. The framework will be a collection of quality criteria in five main policy areas (accessibility, curriculum, evaluation and monitoring, governance and funding, and workforce). It will be supported by evidence from research and practice as well as country-specific analysis. The quality criteria will include descriptors and measures of success that are both quantitative and qualitative.

Definitions and conceptual framework

Several concepts are used across Europe to describe ECEC services and staff. (The European Commission is currently developing a glossary of terms with common definitions that will be translated into different languages.) This working paper uses, to a large extent, the definitions established by the OECD. The OECD uses a broad definition for services for young children, encompassing different service arrangements. According to this definition, early childhood education and care ‘includes all arrangements providing care and education for children under compulsory school age, regardless of setting, funding, opening hours, or programme content’ (OECD, 2001, p. 7). This is also the definition most commonly used in EU policy documents and research projects funded by the European Commission, although most of them focus on centre-based day-care (childcare that is provided in licensed centres outside the home) and exclude family day-care (services provided by a child-minder in the home of the child-minder or the child).

ECEC workforce

Staff working in ECEC services have been given the general label of ‘practitioner’ by several authors. This term

includes all those who work in ECEC settings that provide non-parental education and care for children under compulsory school age. These services include childcare centres, nurseries, nursery schools, kindergartens, various types of age-integrated centres and family day care provided by home-based workers.

Urban et al, 2012, pp. 510–511

The CoRe research project categorises this broad group into core practitioners, assistants to practitioners and family day-carers. Core practitioners are defined as the practitioners who work directly with young children and parents. Assistants to the core practitioners help the core practitioner in working with children and families, while family day-carers care for children in the carer’s own home (CoRe, 2011).

The SEEPRO project (Oberhuemer et al, 2010) divides the category of core practitioners into six profiles.

Early childhood professionals in unitary systems² study pedagogy at a higher education level to become qualified to work in early childhood centres for children from birth up to compulsory school age. In split systems, the required qualification is sometimes lower.

Pre-primary professionals are trained as pre-primary teachers for children in the two to three years immediately preceding compulsory education.

Pre-primary and primary school professionals are qualified at a higher education level primarily as teachers for the school system, including work in primary schools and also in pre-primary settings for the two to three years preceding school entry. Study routes tend to be heavily influenced by school requirements.

Social pedagogy professionals are usually trained at higher education level to work not only with young children but also with school-aged children and young people and – in some cases – adults. The main focus is on social pedagogy and social work outside the school system.

Infant–toddler professionals are trained to work specifically with those aged under three years.

² Analysts often differentiate between unitary and split systems. In a split system, education and care for the youngest children (up to 3- or 4-years-old) is separate from that for older children (up to compulsory school age). In a unitary system, provision for the youngest children is integrated into the broader educational system. See CoRe (2011) for more detail.

Healthcare professionals are core professionals present in some countries who work with children aged under three years and who have a healthcare qualification. This may be a child-focused qualification (such as paediatric nursing) or a general health or social care qualification for working with people of all ages.

Quality in early childhood education and care

Different elements of early childhood education and care can be taken into account when measuring quality. *Structural* quality indicators about the characteristics of practitioners and the education and care setting are usually the basis for regulations and standards. These can include the staff–child ratio, group size, wages and the education and training of practitioners. *Interaction* or *process* quality indicators measure what is taking place in early childhood education and care settings and include interactions between staff and children, as well as between the children. This dimension of quality has a bigger impact on the overall quality of early childhood education and care. According to the ‘From neurons to neighbourhoods’ study:

Quality of care ultimately boils down to the quality of the relationship between the childcare provider or teacher and the child. A beautiful space and an elaborate curriculum – like a beautiful home – can be impressive, but without skilled and stable childcare providers, they will not promote positive development.

Shonkoff and Phillips, 2000, pp. 314–315

Outcome quality for children can be measured with different indicators. A recent European literature review (Lazzari and Vanderbroeck, 2012) looked at possible relations between early childhood education and care and the following outcomes:

- acquisition of cognitive skills and competences;
- acquisition non-cognitive skills and competences;
- successful transition into school;
- its contribution to social inclusion.

Similarly, in their 2008 literature review, Mitchell et al classified studies in relation to:

- cognitive outcomes (mathematics, reading and literacy, school performance, cognitive scores and IQ);
- learning dispositions and social–emotional outcomes (learning dispositions and antisocial or worried behaviour);
- child health.

Relationships between different elements of quality

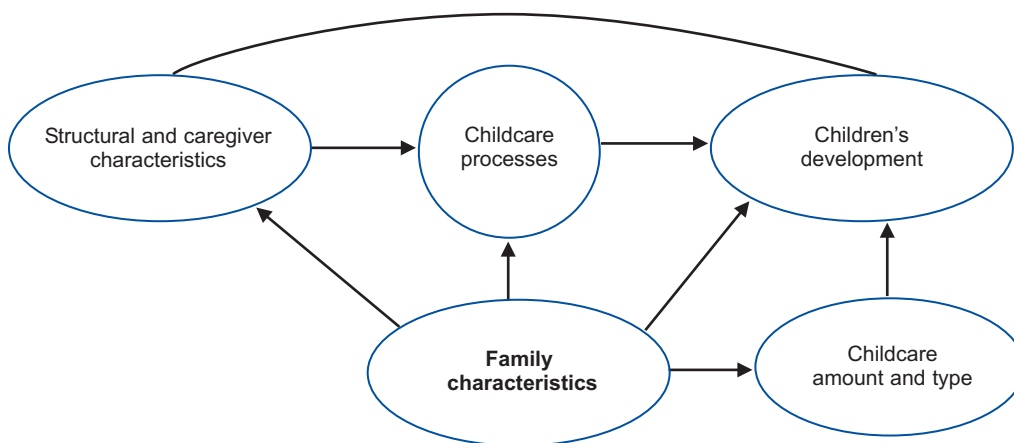
The relationship between the different elements of the three dimensions of quality – structural, process and outcomes – is complex. In its research brief on working conditions, the OECD points out that research about the effects of working conditions on child development is not very extensive and that the findings do not give a clear picture of causality, except in the case of staff–child ratio, group size and staff turnover. In the case of other aspects of working conditions (such as wages and benefits, schedules and workload, and management), research shows that they have an impact on the quality of ECEC services, but it is unclear how they are linked with outcomes for children (OECD, 2012a). Professional development has an impact on pedagogical quality, which consequently has an impact on outcomes for children (OECD, 2012b).

A cross-national study looking into the relationship between structural and process quality found that no group of variables has a crucial impact on process quality, and for this reason, structural characteristics need to be addressed together (Cryer et al, 1999). Indeed, many studies conclude that it is difficult to isolate the influence of one structural element over the others. It is also difficult to determine how factors pertaining to the same dimension of quality influence each other. For example, Ackerman (2006) points out that low wages in the US have an impact on training, as staff do not have the financial capacity to upgrade their credentials – there, a degree costs a teacher one-third of their salary. Wages also have an impact on turnover; some childcare workers use a job in order to receive training before finding employment in another sector.

Vandell and Wolfe (2000) point out that a major complication to establishing links between childcare quality and developmental outcomes is the absence of controlled experiments involving children randomly assigned to childcare of different levels of quality, so that it would be possible to control for different variables. Family and child selection biases pose a methodological challenge that may have an impact on the quality of research. A certain degree of variability in childcare quality is also necessary in order to determine the effects of different levels of quality on the outcomes for children, but this is not always found in studies. Controlling for prior child adjustment to the course is also complicated, as children usually enter childcare during the first year of their life, before it is possible to test for cognitive, language and social adjustment.

The conceptual model below was developed by Vandell and Wolfe (2000) and takes these issues into account. It shows that family characteristics are one of the influencing factors that need to be controlled. The amount and type of care given also need to be considered. In this model, the impact of structural and caregiver characteristics on developmental outcomes is mediated through process quality.

Figure 1: *Childcare quality and developmental outcomes for children*



Source: *Vandell and Wolfe (2000)*

Role of systematic reviews

Systematic reviews identify existing research on a particular topic, appraise those studies critically and then synthesise the findings. They involve compiling the results of studies undertaken in different contexts, which means they can reveal how different quality indicators are influenced by specific contextual factors. They can provide a comprehensive overview of what is known about these relationships and how they are analysed in different studies. Unlike traditional literature reviews, systematic reviews follow the same standards as primary research in terms of explicit, accountable and rigorous methods. Detailed methodology and resources for conducting systematic reviews in the field of social

sciences are provided by the Campbell Collaboration³ and the Evidence for Policy and Practice Information and Co-ordinating Centre (EPPI-Centre).⁴

In the approach followed by the EPPI-Centre, reviews start by formulating a research question and developing a conceptual framework and approach. Reviewers follow a search plan with clear inclusion and exclusion criteria, which can relate to the research topic, the method of primary research or the quality of the research. The selected studies are then coded, appraised and described. Lastly, the main findings of the different studies are synthesised. Throughout the review process there is a quality assurance system, which involves the final users of the review, as well as peer reviewing and expert workshops (Gough et al, 2012). By following strict criteria about the types of studies to be included in the review and the process by which those studies should be searched and reviewed, systematic reviews aim not only to summarise the findings of the most relevant research, but also to reduce the level of researcher bias.

Systematic reviewing is increasingly being used to inform policymaking. The systematic review approach has been used extensively in the field of early childhood education and care, partly because of the emphasis on evidence-based policy in this field. Educational agencies in England such as the Teacher Development Agency (previously the Teacher Training Agency) and the National Union of Teachers (NUT) follow the EPPI-Centre approach when commissioning syntheses of research evidence (Penn and Lloyd, 2006). Many systematic reviews look into the effectiveness of early childhood education programmes (Chambers et al, 2006) or the impact of early childhood education and care as a whole on the outcomes for children (Camilli et al, 2010; Darrow, 2009; Penn et al, 2006). Fewer systematic reviews focus specifically on the links between training, working conditions, staff–child interactions and outcomes for children; those that do are summarised in the next section.

Note on the studies reviewed

The reviews cited in this paper synthesise findings from quantitative and qualitative primary research that employs a range of research designs. These include experimental studies, quasi-experimental studies, randomised controlled trials, survey-based research, evaluations and comparative analyses. In experimental studies, investigators control the variables to be observed, whereas in observational studies they cannot be controlled, only observed. Randomised controlled trials are a type of experimental study where study subjects are randomly allocated either to the intervention that is meant to be analysed or to a control group. Quasi-experimental studies are similar to a randomised controlled trial, except that in these studies, it is not possible to randomly assign an element.

³ Information on the Campbell Collaboration is available at <http://www.campbellcollaboration.org/>.

⁴ Information on the EPPI-Centre is available at <http://eppi.ioe.ac.uk/cms/>.

Systematic reviews of in-service training and working conditions

This section presents evidence of how the working conditions and training opportunities of staff in early childhood education and care are related to interactions between staff and children and outcomes for children, as synthesised in different systematic reviews.

Reviews of in-service training

It is well established that ECEC practitioners have a key role in relation to the quality of ECEC services and that having better-qualified staff is strongly associated with better outcomes for children. However, as the OECD points out, it is not only their specific qualification that matters. The relationship between the level of education of staff and child outcomes is a complex issue (OECD, 2012b). What seems just as important in ensuring quality care and positive outcomes is that practitioners stay up to date in their knowledge of pedagogical developments. Specialised education and training enable them to create the pedagogical environment that ECEC care demands.

This section presents evidence-based findings from two systematic literature reviews about the effects of in-service training for ECEC staff on process quality (for example, child outcomes and staff–child interactions): Fukkink and Lont (2007) and Zaslow et al (2010). It uses the definition of in-service training developed by Litjens and Taguma (2010): ‘all planned programmes of learning opportunities for staff members of ECEC providers for the purpose of improving the performance of individuals in already assigned positions’.

The Fukkink and Lont review is an aggregative review, meaning that it collates findings from existing quantitative data to provide stronger evidence on the effect of in-service training. It is complemented by a narrative review of several qualitative studies. The review by Zaslow et al is a large American configurative review that organises findings from primary studies to work towards a better understanding of the features of in-service training.

The reviews are accountable in that they are transparent in their approach to synthesising findings, and reduce the bias and error that can be encountered when conclusions are drawn from a single primary study. They are also valuable because they reflect the richness of questions, approaches and research methods of the primary research studies.

Both reviews deal with in-service training in general and with specific subjects in the areas of early childhood education and child development, above and beyond general educational attainments, including courses on social and ethnic diversity. The study populations consist of ECEC staff, including those in managerial positions.

Fukkink and Lont (2007)

The Fukkink and Lont review evaluated 17 primary studies; all were (quasi-) experimental studies that provided empirical support for the assumed causal link between caregiver training and quality childcare. Individually, the studies provided contradictory results, and not all of them showed favourable child outcomes. By reviewing and collating the hitherto inconclusive evidence from these primary studies, Fukkink and Lont set out to answer the question ‘Does training matter?’ On the basis of earlier studies, the researchers assumed that ‘instruction influences the professional competencies of caregivers, which underlie their professional performance or, more specifically, their interaction with children’ (p. 297).

The conceptual framework of the meta-analysis set some parameters for the review.

- The primary research studies were carried out between 1980 and 2005.
- The population consisted of caregivers in childcare.
- The review looked specifically at specialised caregiver training, with a focus on teacher–child interaction. (It lists the names of all the programmes that were covered by the primary studies.)
- The primary studies tested the effects of specialised caregiver training on caregiver competencies.⁵ The latter was defined as the ‘professional knowledge, attitudes, and skills that are related to teacher–child interaction’ (p. 296). A few of the studies examined the various dimensions of teacher–child interaction that affect the social, emotional, language and cognitive development of children.

Characteristics of the studies

Using current educational theories, Fukkink and Lont divided caregiver competencies into three separate and complementary learning domains – professional knowledge, attitudes and skills – in order to categorise the findings. In 10 of the 17 studies, the training programmes covered all three domains, in 4 the programmes focused on knowledge and skills, and in 3 the programmes focused only on skills. The large majority of the tested training programmes (n=15) covered various topics. Nine of the programmes tested had a fixed curriculum – it was the same for each trainee – while this was not the case for eight programmes. In 11 studies, the in-service training was integrated with practice, while in the other 6 studies, the training was provided outside the childcare setting without any follow-up activities at the centre. In nine of the studies, the training programme was conducted at a single location, while in eight, several locations were used. In nine of the studies, the training included the provision of individual feedback and support by a personal trainer or coach. In all but one study, the setting was centre-based care; one study involved a family-care setting.

Study conclusions

Fukkink and Lont’s review showed that training does matter, providing an important message to policymakers: ‘taken together, the current empirical evidence demonstrates that specialised training improves the pedagogical competencies of caregivers in childcare, including their professional attitude, knowledge and skills’ (p. 305). However, the research showed that not all interventions are equally effective. In particular, it appeared that ‘large-scale programmes that are designed to a variety of training formats and to a wide variety of learners are not highly effective’ and that ‘learning gains are larger for the attitude domain compared to the skills and knowledge domain’ (p. 306).

In conclusion, the review showed that:

- training that involves fixed-curriculum courses is more effective;
- large-scale training programmes are less effective;
- caregiver skills are amenable to instruction.

⁵ This was the review’s main research question. In addition, it explored the study characteristics that are associated with experimental results and examined the limited evidence on the transfer effects of specialised caregiver training on children’s behaviour and development. A positive relationship was found regarding the latter, but it was not statistically significant.

The aggregation of results revealed a statistically significant effect of specialised training on general caregivers' competencies.⁶

Further research

In order to draw firmer conclusions on the impact of training on child outcomes, Fukkink and Lont identified a need for further research, which should aim to identify the specific interventions that improve childcare quality. The review also showed that, in order to help policymakers design professional development policies, it is important to consider the type of training caregivers need. While the review showed that programmes with fixed-curriculum courses and smaller settings are more effective, insufficient evidence was available about the kind of in-service training programmes that teach caregivers the pedagogical qualities they need. Even five years after the review, little further knowledge had been gathered about the effectiveness of different training strategies to help ECEC practitioners stay updated (OECD, 2012b).

One example of further research in this area is a 2011 evaluation of an individualised learning intervention programme in the US. This programme was designed for early childhood educators and involved experienced teachers, who delivered high-quality classroom learning experiences, acting as mentors. It included three components: a seminar for mentor teachers, mentor teachers supporting the professional development of less-experienced teachers (known as protégé teachers) throughout the school year, and coordinator meetings with mentor teachers to support them. Sixteen mentors and 16 protégé teachers in 'Head Start' classrooms were selected and then randomly assigned to treatment and control conditions in the study.⁷ The results of the study demonstrated that mentoring, particularly when it is delivered by experienced teachers who have been trained to be mentors and involves support for the mentors, can enhance the cognitive, language and social emotional developmental progress of young children. In addition, the mentors and protégé teachers involved in the programme reported enhanced professional growth (Gallagher et al, 2011).

Clearly, conclusions cannot be drawn on the basis of one study. Only a meta-analysis of an adequate number of evaluations can produce sufficiently strong evidence about which interventions improve childcare quality.

Zaslow et al (2010)

This view is corroborated by the large-scale configurative literature review carried out by Zaslow et al in 2010 on behalf of the US Department of Education. This systematic review analysed existing research on the professional development of early childhood educators to work toward the identification of a set of core features that characterise effective professional development. In this study, training was defined as:

professional development that does not result in credits toward a higher education degree. Training may be provided through workshops or professional meetings. On-going training may be an in-service requirement in different types of early care and education. There may also be initial or pre-service training requirements for licensing in childcare.

Zaslow et al, 2010, p. 13

⁶ The aggregation resulted in an effect size of $d = 0.45$ (S.E. = 0.10), which corresponds to a medium effect size.

⁷ The 'Head Start' is a programme in the US that provides comprehensive early childhood education – addressing education, health, nutrition and parental involvement – to children from low-income households and their families.

Conceptual framework

The researchers distinguished four targets of professional development initiatives, where efforts were focused on strengthening interventions:

1. **Improving the human and social capital of early childhood educators.** Research on this target looked at the extent to which qualifications of early childhood educators are related to the quality of the environment, interactions with children and outcomes for children.
2. **Strengthening the institutions or organisations providing the professional development.** Research on this target examined the quality of higher education and training programmes.
3. **Improving outcomes for children in specific developmental domains.** These studies focused on the effectiveness of various approaches in terms of improving outcomes for children in specific developmental domains, such as early literacy, mathematics and social behaviour. These studies usually involved implementing specific curricula or activities and an examination of early educator practices or outcomes for children after implementation.
4. **Improving the overall quality of children's experiences and outcomes in early childhood settings.** Studies in the fourth target area looked at approaches to professional development aimed at improving the overall quality of children's experiences and outcomes.

The authors considered a broad range of studies covering all four targets. Systematic inclusion criteria were used to select evaluation studies. These pertain to the third and fourth targets. According to the authors, the inclusion criteria for these studies were as follows.

Rigour of evaluation: Evaluations were rated according to five methodology levels, including experimental, quasi-experimental, pre-post with comparison group, pre-post without comparison group, and descriptive.

Age range: Evaluations of professional development programmes involving children from birth through to kindergarten were included in the review. Most of the studies reviewed pertained to children aged 3–5 years.

Early educator: For the purpose of the review, 'early educator' included pre-school teachers, pre-kindergarten teachers, kindergarten teachers and childcare staff caring for children from birth through to kindergarten entry. Educators in both private and public settings were included. Workers in family childcare settings were not excluded from the review, although few evaluations focused on these environments.

Professional development: Evaluations included in the review had to include some form of professional development as part of the treatment intervention. For example, they had to include credit-bearing classes, training on a curriculum, in-class coaching, or other activities aimed to improve educators' knowledge of child development or practice in the classroom or home-based childcare setting.

Assessment of effectiveness: Evaluations had to measure or evaluate changes in at least one of three key areas: early educator knowledge, practice, and child outcomes.

Improving outcomes for children in specific developmental domains

Under the third target, the review looked at research into strengthening professional development targeting improvements in specific developmental domains for children. This included 37 studies that reported on evaluations of professional development approaches aimed at promoting children's early language and literacy development.⁸ It identified three sets of outcomes from this professional development: educator knowledge, educator practice and child outcomes. Six of the 37 reported effects for educator knowledge, pointing to evidence of a tendency for participation in professional development to increase caregiver knowledge. The majority (n= 26) measured educator practice, and, in most cases, participation in professional development was also found to improve educator practice, although effect sizes varied significantly (from small to large). Child outcomes were also measured by 26 of the 37 studies, and they typically pointed to positive outcomes.⁹ Zaslow et al identified the following features that help improve educators' knowledge or skills in teaching early literacy, with the ultimate goal of improving literacy outcomes among children (p. 41):

- a strategy that includes supervisors as well as caregivers in professional development activities;
- comprehensive coverage of content in early literacy research and literacy instruction;
- multi-modal approaches to delivering professional development;
- intensive and extensive administration of professional development (rather than a one-off short dosage);
- ongoing monitoring of adherence to the implementation of training through on-site follow-up observation and mentoring.

Only 3 of the 26 studies measuring child outcomes explicitly addressed the sustainability of improved outcomes. This limited evidence indicates that

professional development for literacy instruction can have short-term, sustained effects on child outcomes. Long-term effects may partly depend on the introduction of additional elements of literacy instruction that build on the mastery of earlier elements, as well as supports for continued language and literacy growth received in later years of schooling.

p. 46

A further seven studies that evaluated approaches for professional development in early mathematics curricula were reviewed. Carried out between 2002 and 2008, all of these studies reported gains on measures of children's mathematical knowledge and ability. Due to the small number of studies, it was not possible to draw strong conclusions. However, the review did identify the following four features as potential outcome contributors:

- well-articulated and research-based curricular goals;
- the availability of a manual and set of activities for implementing the curriculum;
- the match between the comprehensiveness of the curriculum and the extensiveness of professional development;
- having supervisors and providing on-site follow-up support to educators.

⁸ Fifteen of the studies were experimental, eight were quasi-experimental, another eight were pre-post with comparison group, one was pre-post without comparison group and four were descriptive.

⁹ The researchers noted that, regarding the primary studies, it was not possible to identify the specific aspects of the implementation of training that are causally linked to child outcomes.

The review included 14 studies on child social behaviour. It stated that the hypothesis that emerged here is that:

with broader goals comes the need for the provision of more background on children's development and thus more extensive course work or training. However, there is still an implication in the work that specificity of goals in terms of desired teacher behaviour, and on-site work to provide feedback and assure fidelity, contribute to positive outcomes although the latest study dates back to 2004.

p. 67

Improving the overall quality of children's experiences and outcomes in early childhood settings

Under the fourth target, which focuses on research on approaches to in-service training that aim to improve the overall quality of early childhood education and care, 10 studies were reviewed that examined the effectiveness of comprehensive curricula intended to improve the instructional practices in childcare centres, as well as children's developmental outcomes across multiple domains. All of these studies were relatively recent, having been carried out in 2007 or 2008, and all were experimental. They provide information about the potential of curricula in combination with in-service training to affect the practices of caregivers regarding children's developmental outcomes. However, they do not provide insight about which strategies would work best to achieve positive outcomes.

Also under the fourth target, 11 studies focused explicitly on the processes and principles of professional development. Evidence from these studies indicate that while a common theme in the literature on best practice is that training must be intensive and continuous, specific guidelines on intensity and duration are difficult to find in the literature. The literature suggests that on-site consultation may not be effective at low levels of intensity, even when combined with training, but may be more successful at higher levels of intensity. This would involve longer and more frequent on-site visits over a longer period of time. Another finding to emerge from these studies is the importance of opportunities for teachers to directly apply taught knowledge. Finally, it emerged that different types of early childhood settings differ in terms of degree of isolation of the early educator and on-going supervision and support by administrators. Findings suggested that response to professional development differs, depending on the level of ongoing supervision and monitoring.

Only one study addressed the sustainability of the effects of professional development approaches aimed broadly at improving overall quality, and none presented findings on the implications of professional development for child outcomes (Zaslow et al, 2010, p. 74). Hence, the reviewers called for further research in this area.

Study conclusions

Similar to Fukkink and Lont (2007), Zaslow et al concluded that 'significant questions remain about which features of professional development for early childhood educators are most effective for improving both educator and child outcomes' (p. xii). They argued that following on from the Fukkink and Lont review, 'an important next step in the research on training is to distinguish among different approaches to training to discern which specific features of training interventions show the strongest evidence of desirable outcomes' (p. 15).

The review provides a number of important insights into the features of in-service training. Amongst these is the finding that the foundation of each professional development programme – its goals, objectives and capacity to provide participants with clearly defined teaching strategies – may be just as important as its method of implementation. In terms of implementation, a more inclusive delivery includes managers and support staff to share and build on existing knowledge related to 'beneficial improvements in classroom literacy environments as well as improvements in child outcomes over time' (p. 38). When it comes to training intensity, the review shows that even small amounts of in-service training are associated with positive child outcomes. This can be explained by the finding that training targeting a very

specific set of skills can be less intense than programmes with a broad focus. Programmes that teach new skills may need to be more extensive.

Reviews of working conditions

Findings presented in this section have been synthesised in three systematic reviews on two aspects of working conditions (staff–child ratio and number of children per group) where there is research showing a link between these aspects and outcomes for children: Vandell and Wolfe (2000), Huntsman (2008) and Mitchell et al (2008).

Vandell and Wolfe’s review focused on evidence regarding the impact of childcare quality and whether the quality of childcare in the US needed to be improved. Two of their review questions were:

- How is childcare quality measured?
- Does quality of childcare have meaningful effects on children’s developmental outcomes?

Among the studies included in Vandell and Wolfe’s review, 29 explored relationships between structural and caregiver characteristics and process quality using statistical tools of analysis such as Pearson correlations and t-tests. Other studies included multiple regression techniques in order to isolate the relative impact of different characteristics. The studies were published between 1979 and 2000 and included research on childcare homes, day-care centres, family day-care, as well as care provided by grandparents in the US. A further 27 studies examined the relationship between process quality and child outcomes while controlling for family factors such as family income, observed maternal sensitivity, socioeconomic status, parental age and education, childcare history and the education level of the mother. The studies considered child outcomes both within childcare settings, through the immediate reactions of children, and outside the care settings. They also included elements of structural quality in the analysis.

The systematic review carried out by Huntsman in 2008 summarised the evidence available from research studies and grey literature published between 1979 and 2007 in order to answer the following questions:

- What are significant indicators of quality in childcare, and how have they been measured?
- What does research have to say about the child outcomes of high-quality care, as compared with low-quality care?
- What is the quality of research on childcare quality?

The scope of the review was fairly broad, including not only childcare in centres and family day-care, but also, to a certain extent, care provided by friends and relatives.

The third systematic review presented in this section was undertaken in 2008 by Mitchell et al from the New Zealand Council for Educational Research. Its aim was to provide the country’s Ministry of Education with a synthesis of the research available regarding the impact of early childhood education for children and families. More concretely, it looked at the developmental, educational, social and economic outcomes for children in early childhood education and care and their families. It also considered whether outcomes vary by different population groups or ECEC contexts, and how different outcomes influence each other.

The review by Mitchell et al included 117 studies reported between 1995 and 2006. In order to be included in the review, studies needed to provide adequate details regarding their sample, research methods, analysis and findings so that their robustness could be appraised by reviewers. In the synthesis, the size of any impact was reported in terms of effect sizes whenever possible. The child outcomes, where the impact of structural quality was analysed, were classified into the following categories:

- cognitive outcomes, including academic-related topics such as mathematics, literacy, intelligence tests, as well as school readiness, grade retention and special education placement;
- dispositional and social–emotional outcomes, including learning dispositions such as independence, perseverance, participation, curiosity and social competence, as well as the negative outcomes of antisocial or worried behaviour.

Staff–child ratio

The review undertaken by Huntsman showed that the staff–child ratio is associated with higher global quality scores, high process quality and better child outcomes. Conversely, having a large number of children per caregiver is associated with lower levels of process quality. As the impact of ratios on quality is linked to other elements such as qualifications and training, wages and group size, it is difficult to establish precisely the optimal staff–child ratio. One of the studies reviewed explained that the association between ratios and child outcomes is due to the fact that having more staff per group of children makes it more likely that there will be positive adult–child interactions (Munton et al, 2002).

Huntsman pointed out that most of the studies available focused on services for children aged 3–5 years, which did not give a good overview of the effect of ratios on children, because ratios have a more positive effect on younger children. Moreover, most of the studies reviewed were correlational and very few were experimental.

Findings from experimental studies

De Schipper et al (2006) undertook a study in the Netherlands that experimentally manipulated the child–caregiver ratio in order to examine the effects on the quality of the interaction by assigning to the same caregiver different numbers of children, thus controlling for training, salary and group size. The results of this experiment showed that smaller groups of children resulted in higher quality caregiver behaviour, supportive presence and respect for autonomy, with the ratio effects being stronger for younger children. The caregiver’s expression of positive affect towards children was not affected by the staff–child ratio. Children (particularly younger ones) were more cooperative in smaller groups. The authors pointed out that although the differences in the quality of the caregiver for ratios 3:1 and 5:1 were relatively small, they may constitute the difference between adequate versus inadequate care, especially for toddlers.

The systematic review undertaken by Vandell and Wolfe synthesised the evidence from studies linking structural and process quality. The studies looked into ECEC services for children up to 68 months old. They showed that low staff–child ratios allowed caregivers to spend less time managing children in the classrooms, and children appeared to be less apathetic and less distressed. Practitioners were also able to provide care that was warmer, and more stimulating, responsive and supportive. Global process quality scores were higher when the staff–child ratio was low. One study included in the review found that scores of ‘good’ and ‘very good’ on the Infant/Toddler Environment Rating Scale (ITERS)¹⁰ and the Early Care Environment Rating Scale (ECERS)¹¹ were more frequently given in infant classrooms with ratios of 1:3 or less and in toddler classrooms with ratios of 1:4 or less.

¹⁰ The ITERS scale measures process quality in centres for children younger than 2.5 years. It has 35 items divided into 7 domains and is scored on 7-point scales.

¹¹ The ECERS scale has 37 items that evaluate 7 aspects of centre-based care for children aged 2.5 to 5 years: personal care routines, furnishings, language reasoning experiences, motor activities, creative activities, social development and staff needs.

A study in Sweden included in the Mitchell et al review found that children in classes with a higher staff–child ratio and smaller group sizes had enhanced mathematical abilities at eight years, with those having received centre-based early childhood education and care having better scores than those in family day-care (Broberg et al, 1997). A study from the US found that child outcomes were best predicted by staff–child ratios at 24 months and by practitioner training and education at 36 months (NICHD Early Child Care Research Network, 1999). Another US study found that those children in early childhood education and care that followed the recommended staff–child ratios (1:3 at 6 and 15 months, 1:4 at 24 months and 1:7 at 36 months) had higher scores in receptive communication and higher expressive communication skills at 36 months (Burchinal et al, 2000). On the other hand, the studies included in this review did not find associations between staff–child ratios and social or emotional gains for children.

Number of children per group

Huntsman’s review found that group size had a lower impact than other structural variables, with studies showing different results and class size being combined with other mechanisms. One of the studies included in the review pointed out that it is very difficult to create a situation where all variables other than group size are held equal, and therefore findings based on regression techniques have to be interpreted carefully (Munton et al, 2002). Overall, the research reviewed showed that process quality was higher if the number of children in a group was either at or below the recommended maximum level. This is also reflected in the studies reviewed by Vandell and Wolfe, where an association was found between group size and positive caregiving. However, the studies included in the review by Mitchell et al did not find any effects of group size on language scores or on any other child outcomes when the effects of other structural measures were controlled.

As for the link between group size and staff–child ratio, a study included in the Huntsman review (Blau, 1999) used a large longitudinal sample of children from the US National Longitudinal Survey of Youth and found small positive effects of small group size on children aged 3–6 years, but none regarding staff–child ratio. The Vandell and Wolfe review included studies that confirmed that group size predicted caregiver behaviour, even when controlling for staff–child ratio. In these studies, caregivers were more responsive, socially stimulating and less restrictive when there were fewer children in their classrooms. These relations were also observed in childcare homes.

A meta-analysis conducted by Camilli et al (2010) provides further insight into why smaller groups and lower ratios are beneficial. This study looked into 123 comparative studies of early childhood interventions that were either quasi-experimental or randomised. Each study provided a number of ‘contrasts’, defined by the authors as the comparison of a group of children who received a programme of educational or other services with a group who received an alternative intervention or no intervention. The meta-analysis undertaken by the authors found that individuation (individualised instruction) had a positive effect on cognitive and school outcomes. This enabled teachers to monitor the situation of children and better tailor the curriculum. It also showed that children were better able to learn the processes that govern a classroom, such as sitting and paying attention to the teacher.

Working conditions and training opportunities in five Member States

This section presents an analysis of working conditions and training opportunities of ECEC staff in five Member States: Austria, Germany, Ireland, the Netherlands and Spain.

Austria

Data presented for Austria is based largely on the results of a study conducted by the Austrian Institute for Children's Rights and Parent Education (Institut für Kinderrechte und Elternbildung), which deals with the legal and institutional framework for elementary educational bodies in Austria (Klamert et al, 2013).

In 2009, in accordance with the second economic recovery package, the nine *Bundesländer* (federal subdivisions), which are responsible for childcare provision in Austria, received a contribution of €70 million from the federal government. This was to reimburse the costs of the introduction of a mandatory kindergarten year for all five-year-olds, at a minimum of 20 hours per week, free of charge. Since then, the reimbursement has been kept at the same level and will be continued in future within the framework of agreements according to Article 15a of the Austrian Federal Constitution between the federal government and the nine *Bundesländer*.

In the same year, an agreement was signed to promote further investment in childcare provision, with a special focus on childcare facilities for those aged 0–3 years. This agreement included an annual contribution of €15 million from the federal state and was renewed twice to guarantee the same payment each year (except in 2011, when €10 million was contributed) until 2014. Recent government plans indicate even higher investment in this field, amounting to €350 million until 2017. These plans for better childcare provision are fully in line with the recommendations of the European Commission in the Social Investment Package (European Commission, 2013a) and with the country-specific recommendations for Austria.

These plans to improve the provision of childcare in Austria inevitably raise concerns regarding potential short-term recruiting problems. In order to attract unemployed people or employees from other sectors to switch to pedagogic childcare and other related careers, two active labour market instruments have been implemented. Since July 2013, people can apply for a training scholarship called *Fachkräftestipendium* at the public employment service (Arbeitsmarktservice, AMS). This covers living expenses for a maximum duration of three years for those beginning pedagogic training at level 5 of the International Standard Classification of Education (ISCED) (short-cycle tertiary-level programmes) for between four and eight semesters (AMS, 2013a). The *Bildungsteilzeit* programme facilitates a combination of working time reductions and qualification measures (AMS, 2013b).

This brief overview of initiatives and additional resources in the ECEC field shows that, even in times of budget consolidation, this is a credible and sustainable priority for the Austrian federal government. However, there are structural problems regarding the federal system, described below.

ECEC setting

In order to assess the working conditions and in-service training of childcare workers, three specific elements of the Austrian ECEC system should be taken into account. First of all, the Austrian ECEC sector is managed on a decentralised basis at the *Bundesländer* level, making it difficult to maintain equal quality standards (such as staff-child ratio and group size) of early childhood education and care throughout Austria. This in turn makes it difficult to generalise about the working conditions of childcare workers in Austria. Many experts in research and practice express a wish for central administration, and demand the national government provide a general standard framework for early childhood education and care in all nine *Bundesländer* (Platform EduCare, undated). Secondly, due to the high degree of

decentralisation, responsibility for non-pedagogic staff does not lie with the Austrian Federal Ministry for Education. Except for the initial training of ECEC teachers and pedagogical staff, the ministry has no say in any ECEC decisions. A more standardised system would lead to better educational standards for ‘assistants’, resulting in improved training and career opportunities for childcare workers. Finally, Austria has an age-group-differentiated system, leading to different qualification requirements and working environments depending on age groups (0–3-year-olds and 3–6-year-olds). This is in contrast to northern European countries, where the ‘integrated model’ is predominant. This means that, in Austria, qualification requirements and working conditions can vary depending on the age group of the children.

Up until some years ago, it was possible to specify that ECEC teacher training be limited to the curriculum for 0–3-year-olds for staff working in institutionalised settings. Nowadays, every ECEC teacher should be trained in the education and care of 0–6-year-olds, because the curriculum covers didactics and pedagogy for the first six years of childhood. Nevertheless, qualification requirements still differ. In four of the nine Austrian *Bundesländer* (Salzburg, Tirol, Vorarlberg and Niederösterreich), training as an ECEC teacher is not a legal requirement for the care of 0–3-year-olds. Furthermore, there are weaker qualification requirements, different wages and different working conditions for child-minders (*Tageseltern*). Similar arguments apply for the increasing quantity of *Kindergruppen* (parent-organised children’s groups) in the capital Vienna.

Working conditions

Staff–child ratio

The staff–child ratio (for children aged 3–6 years) is regulated by law at *Bundesland* level. The European Commission Network on Childcare (ECNC) recommends a staff–child ratio of 1:15. This is based on the recommendation of the National Association for the Education of Young Children (NAEYC) that the staff–child ratio should be at least 1 pedagogic staff member per 10 children (Hayes et al, 1990, p. 65; Textor, 1999). Taking only the pedagogically trained staff into consideration, none of Austrian’s nine *Bundesländer* fulfils these requirements – throughout Austria an average staff–child ratio of 1:24 can be found. If the assistants are included in the calculations, the situation looks more favourable. However, such calculations are somewhat misleading, as the qualification requirements for assistants vary substantially between the different *Bundesländer*. According to European standards, assistants are usually educated to upper secondary education level – ISCED level 3 – while in four of the nine *Bundesländer* no formal education level is required (see Baierl and Kaindl, 2011, p. 21f). There are no binding commitments to change this unsatisfactory situation. However, some form of agreement is reportedly being planned between the state and the *Bundesländer* that would regulate the minimum education standards of assistants throughout Austria.

Workload

The workload of pedagogic staff is closely related to group size, staff–child ratios, salaries and staff turnover. Another important factor is the amount of preparation time staff are given, and this differs greatly between the *Bundesländer*. In the state kindergartens, based on a working week of 40 hours, staff are given anywhere between 5 and 10 hours preparation time, depending on the *Bundesland*. In private kindergarten facilities, it is difficult to get an overview of how much time is reserved for preparation due to a lack of information and the fact that each facility has a different collective agreement (*Kollektivvertrag*).

Group size

As with the staff–child ratio, group size is regulated at the *Bundesländer* level (both for those aged 0–3 years and 3–6 years). The NAEYC recommends limiting the maximum group size to 20 children per group in a kindergarten. This recommendation has been legally regulated only in Tyrol. Austria generally follows the less stringent UNICEF recommendation of a 1:24 staff–child ratio.

Wages

Throughout Europe, remuneration in early childhood education and care is moving towards schoolteacher levels. The starting salaries of both groups are quite similar. According to the AMS, the gross initial salary of pedagogic staff ranges from €1,760 to €1,950 per month (before the deduction of taxes and social security contributions). For primary schoolteachers, the income level is about 10% higher and reflects to a certain degree the different qualification requirements for teachers (ISCED 5) in comparison to pedagogic staff working in kindergartens (ISCED 3–4).

The starting salaries of childcare workers in Austria vary considerably. These differences exist between the *Bundesländer*, between public and private entities (the latter provide a certain minimum income), and even between municipal and *Bundesländer* kindergartens within the same *Bundesland*. In Austria, about 100 income schemes are in use for childcare workers.

Turnover rate

Research on turnover of pedagogic staff in Austria is not available. It can be assumed that the turnover is high due to relatively low and diverging starting incomes and due to the fact that the decision to go into this profession is usually made at a young age. (See Ackermann, 2006; Huntsman, 2008; Manlove and Guzeli, 1997; Moon and Burbank, 2004; OECD, 2012b; and Unicef, 2008, p. 23.) Further research is needed on this subject.

In-service training

As in other countries, further education for pedagogic staff in Austria is regulated locally and is therefore subject to significant regional variations. Assistants, in addition to carrying out ancillary tasks, are also directly involved with the children. As already mentioned, there are no minimum standards for the training of assistants in Austria; some are employed in kindergartens without any formal training. At least some form of further education and in-service training should be offered to enable the assistants to carry out their jobs competently (Eurydice 2009, p. 109). No information on the availability of such programmes was found. There are workshops and seminars for kindergarten teachers that are also open to assistants. However, it may be difficult for assistants to avail of these opportunities due to time and financial constraints. No part of this training is obligatory, as there are no minimum standards regarding the training of assistants.

The provision of training programmes is important not only for assistants but also for those trained to work in kindergartens without a third-level qualification (Eurydice 2009, p. 109), which can still happen in Austria. In most *Bundesländer*, it is mandatory to conduct between two and four training days per year. However, Lower Austria offers only two days every three years, while in Carinthia and Vienna, no training is required by law. It suggests that further education for pedagogical staff is not taken sufficiently seriously in some *Bundesländer*.

Germany

Much of the recent political focus in Germany has been on expanding the childcare sector. On 29 May 2013, under the European Semester, Germany was one of 11 Member States to receive a country-specific recommendation regarding the 2002 Barcelona Targets. The recommendation for Germany is to further increase the availability of childcare. While as of 1 August 2013, the 2008 Child Care Funding Act entitles children aged 1–3 years to a childcare place and 813,000 new places were to be established by this date, a fierce debate is ongoing regarding the actual expansion achievements. This debate is not only about quantity; quality concerns are also being raised. A recent government-financed study rated only 3% of ECEC facilities as being good; 85% were found to be of average quality, while 12% were rated as poor. The study found that ECEC facilities often lacked the two main elements for good-quality care: space and well-qualified staff. It argued that the expansion of high-quality childcare should be Germany's main family policy priority (Erdmann, 2013). The recently formed German government agreed to prioritise government policy on childcare provision, qualifications, in-service training and language training during its next term (Berliner Zeitung, 2013).

ECEC setting

Before discussing the current ECEC setting in Germany, it is important to note the lasting impact of the pre-unification development of very different models of childhood services. In the German Democratic Republic, childcare for children aged 3–6 years was universal, while for children aged under 3 years, provision was higher than in other eastern European countries. Conversely, in the Federal German Republic, childcare was not part of the statutory education system. Rather, responsibility was located within the system of child and youth welfare services. Even today, children in the former German Democratic Republic states are far more likely to be enrolled in early childhood education and care than are children in the former Federal German Republic states (Oberhuemer, 2010; Bertelsmann Foundation, 2013).

In Germany, the traditional forms of early childhood care are:

- kindergarten for children aged 3–6 years;
- infant and toddler centres (*Kinderkrippe*) for children aged 0–3 years;
- family day-care (*Kindertagespflege*) for children aged 0–3 years.

Nowadays, childcare tends to be more diversified. New forms, such as centres for children aged 0–6 years, parent initiative groups for children aged 3–6 years, playgroups and crèches with a specific educational philosophy (such as Montessori centres), are becoming more and more common.

Early childhood care is located within the child and youth welfare sector. Responsibility for organising and securing funding lies with municipalities. The Ministry for Family Affairs can have a role in stimulating development. In the federal states, early childhood education and care tends to be governed by the Ministry of Education or the Ministry of Social Affairs; this varies depending on which department has responsibility for youth affairs.

Under the principle of subsidiarity, municipalities cooperate with non-governmental organisations and churches, which provide about two-thirds of the provision. The subsidiarity principle developed out of the traditional role of churches and welfare organisations in social affairs. Public authorities are only obliged to provide care when non-governmental agencies are unable to do so.

Working conditions

Staff–child ratio and workload

Staff–child ratios are regulated at state level and are calculated on the basis of full-time equivalents of staff divided by full-time equivalents of children. The staff–child ratio recommended by the Bertelsmann Foundation is 1:3 for children aged 0–3 years. However, the Foundation's 2013 report *State by state: Monitoring early childhood education (Ländermonitor Frühkindliche Bildungssysteme)* shows that Bremen is the only state to meet this recommendation. There is considerable variation between states but the report draws particular attention to a lack of staff in several eastern states. While the average German staff–child ratio is 1:4.5, it is 1:6 in the eastern states compared to 1:3.7 in the western states. Sachsen-Anhalt has the highest number of children per staff member with a staff–child ratio of 1:6.5.

The complex methods used to calculate these rates may make it difficult to interpret these data, but the situation in some of the regions of the former East Germany is disconcerting, as children there tend to attend childcare more often and for a greater number of hours than children in western states, where the lack of childcare places is greatest (Bertelsmann Foundation, 2013). To meet the rising demand for a professional workforce, the number of professional training schools has risen considerably, from 423 in 2009 to 561 in 2011, with a corresponding rise in students (Duded et al, 2013). Attempts have also been made to create new pathways into the profession for career changers; here the focus is not just

on increasing the workforce but also on increasing the proportion of men in the sector. One example is the ‘More men in childhood education’ (*Mehr Männer in Kitas*) programme, funded by the European Social Fund.

Group size

There are no federal regulations concerning group size. In the state of Baden-Württemberg, there is a regulation that calls for maximum group sizes of 22–25 children aged 3–6 years in part-time care (Bertelsmann Foundation, 2013).

Wages

It is envisaged that 30% of the new places will be in the family setting (*Kindertagespflege*), yet the professionalisation of this type of care is considered to be below par. One explanation for this is the low pay that carers in this setting receive; between 2009 and 2012, their hourly rate increased from €3.65 to €4.13, with large regional variations, ranging from €2.10 to €6.70 in 2012. From this hourly rate, carers still need to pay for the food and toys of the children they look after, bringing their average pay to below the poverty line. In general, the job has a low status and in order to attract better qualified people, there is a clear need to develop this type of day-care into a real profession. On a positive note, the qualification level of family day-carers has improved: in 2006, only 15% had completed vocational studies and a qualification-based course, compared to almost 25% in 2012 (Erdmann, 2013). It should be noted that low pay is not just an issue affecting *Kindertagespflege* employees; ECEC workers generally receive lower wages than primary schoolteachers (Oberhuemer, 2010). A study of the financial situation of ECEC workers shows that, in 2009, the average net income was €1,350 for core professionals and around €1,245 for childcare assistants (Fuchs-Rechlin, 2010).

Turnover rate

A recently published study about structural quality and ECEC staff found no statistically significant differences in the turnover rate between large and small childcare centres or between private and public centres. In total, 58% of private centres and 68% of public centres with up to 50 children reported staff changes over the past two years. The corresponding figures for larger centres are 75% and 76%, respectively (Viernickel and Voss, 2013).¹²

In-service training

Significant progress has been made in the development of standards and good practice for the professional training of ECEC staff. Until recently, the system was best described as having an ‘absurd particularisation and structural arbitrariness’ (Becker, 2002, p. 240): there were no cross-national standards; seminars and courses were organised by a wide range of providers; and links between individual qualifications were more or less absent (Oberhuemer et al, 2010, p. 187). This changed with the WiFF project, launched in 2009 by the Federal Ministry of Education and Research, the Robert Bosch Foundation and the Germany Youth Institute. WiFF, an acronym for ‘advancing the further education of early childhood professionals’, actively supports lifelong learning. Through it, several guides have been developed on courses in a number of relevant fields, such as language development, children under four years, cooperation with parents, and multicultural inclusion. The WiFF website includes a course databank with a search engine that lists all the available courses in each federal state.

In a 2011 survey, researchers identified 8,693 such training opportunities for ECEC staff. Although the majority of the providers are based in the western states (with 18% of them in Bayern), the training centres are well distributed throughout Germany. At the same time, the study shows that seminars make up 80% of the training opportunities, whereas formal continuous training modules only represent 7% of what is on offer. Not surprisingly, much of the available training is of short duration, infrequent, ad hoc and without follow-up (Baumeister and Grieser, 2011).

WiFF also surveyed 4,268 ECEC staff about their experiences and perceptions of in-service training (Behr and Walter, 2012). This survey found that further training is part of the work contract for most ECEC staff (97%), with an average

¹² See the profile for Austria for information on general turnover rates.

of 4.5 training days being made available. The average number of days taken is 4.4. Almost half of staff (45%) rate the time available for training as being too low. Over half (52%) indicated that their workplace organises in-service training and 40% have a personal training plan. Over four-fifths (82%) attended a seminar (which corroborates the findings above), while just 15% attended a course that lasted more than a week. Uptake was found to be far higher among ECEC staff in managerial positions, and the top three thematic subjects were infants (0–3 years); language and observation; and documentation. Six out of 10 respondents (59%) indicated that the available training courses completely or almost completely met their requirements (in terms of theme coverage).

The survey found that the main reason for in-service training is to increase professional competencies. Reasons such as earning more or changing jobs are much less important. Not having enough time, costs and personal reasons are the most frequently cited reasons for not taking part in in-service training. Seven out of 10 respondents rated the quality of the in-service training system positively, although 57% would like to see more transparency. In terms of outcomes, the connection with career development could be improved (84%) and the recognition of the qualification obtained could be better (66%). Three out of five respondents would like to see the training courses more adapted to the needs of ECEC staff. Finally, respondents rated the climate for further training very positively and indicated that the need for in-service training is widely accepted in Germany. However, 58% indicated that absence from the workplace due to training puts a heavy burden on remaining staff; for 50%, this is an area for improvement.

Early childhood education in Thüringen

As part of the Bertelsmann Foundation's monitoring of early childhood education and care, it provides detailed information on the performance of each German federal state.¹³ This section presents some monitoring data about the federal state of Thüringen, because of all 16 states, it has the highest proportion of young children in early childhood education and care: 90% of two-year-olds attend childcare, as do 95% of three-year-olds. Furthermore, young children in this German state tend to spend more hours than the average German child in care: of those under three years attending an ECEC facility, 60% do so for at least 45 hours per week, which is considerably higher than the German average of 38%. This high and large uptake of childcare makes the call for high-quality childcare even more important. In this regard, Thüringen stands out as one of the federal states with above-average performance. The staff–child ratio is the lowest of the eastern states (as noted earlier, there is a lack of staff in this part of Germany, but in Thüringen the ratio of 1:5 is just above the German average of 1:4.5). Between 2012 and 2013, the number of people working in the childcare sector increased by 17% in Thüringen. In addition, the qualification level of ECEC staff is above the national average: 88% are qualified childcare practitioners, compared to the average figure of 72% for Germany as a whole.

As always, there is room for improvement. The Bertelsmann Foundation notes that the relatively high proportion of staff carrying out both managerial and pedagogical tasks is an area for attention in Thüringen, particularly because the staff–child ratio is still higher than the national average.

Ireland

State involvement in early childhood education and care in Ireland has historically been weak, with the exception of child protection and childcare services for children in disadvantaged areas (Corrigan, 2004). The sector has been characterised as diverse and fragmented, with the community and voluntary sector and the private business sector being the main providers (Oberhuemer et al 2010).

¹³ See <http://www.laendermonitor.de/?id=23>

Early childhood workers are currently in the spotlight after a documentary, aired in May 2013 on national television, showed children being subjected to neglect and mistreatment in some crèches. In late May, the Irish Minister for Children and Youth Affairs presented her agenda for improving quality in pre-school services. It includes enhancing supports for the implementation of the existing quality frameworks for working in early childhood education and care and its curriculum, and reviewing the professional training system for early education practitioners (Department of Children and Youth Affairs, 2013a). Shortly after the documentary was broadcast, the Association of Childhood Professionals was established as a national body. The *Report of the Expert Advisory Group on the Early Years Strategy* (Department of Children and Youth Affairs, 2013c) recommends the establishment of an ECCE¹⁴ Quality Support Service/National Early Years Mentoring service to support ECEC services and the establishment of a plan to implement existing quality frameworks.

Working conditions

Group size, staff ratios and duration of funding

Table 1 sets out the staff–child ratios established by law in Ireland.¹⁵

Table 1: *Mandatory staff–child ratios in Ireland*

Pre-school service	Age of children	Number of adults	Number of children
Sessional services	0–1 years	1	3
	1–2.5 years	1	5
	2.5–6 years	1	10
Full-time and part-time day-care	0–1 year	1	3
	1–2 years	1	5
	2–3 years	1	6
	3–6 years	1	8
Drop-in centres	0–6 years	1	4 (only 2 or fewer under 15 months)
Child-minders (family day-carers)	0–6 years	1	5 (including their own) or 2 fewer
Overnight pre-school service	0-1 years	1	3 children less than 15 months old
	1–6 years	1	5

Notes: Sessional services include playgroups, crèches, Montessori groups, playschools, and child-minders looking after more than 3 children that offer planned programmes consisting of up to 3.5 hours per session.

When a full day-care service also takes children on for less than a full day, sessional service adult numbers apply.

Pre-school services in drop-in centres contain groups of 24 children at most.

Source: *Citizens Information, 2011*

In 2010, a free pre-school year of education and care was introduced for children aged over three years and two months and under four years and seven months. The 2012 state budget included savings cuts in the free pre-school year by increasing the staff–child ratio from 1:10 to 1:11. Also from September 2012, the following new staff–child ratios apply to the pre-school session element of services for service providers availing of the free pre-school year.

¹⁴ The Irish government refers to ‘early childhood care and education’, abbreviated as ECCE.

¹⁵ As laid out in the Child Care (Pre-School Services) (No 2) Regulations 2006 and the Child Care (Pre-School Services) (No 2) (Amendment) Regulations 2006.

In order to qualify for a capitation grant from this scheme, based on the number of children, pre-school services need to fulfil a series of criteria. The minimum number of pre-school leaders and assistants in a service providing the free pre-school year is currently stipulated as follows.

Up to 11 children:	1 pre-school leader
12–22 children:	1 pre-school leader and 1 pre-school assistant
23–33 children:	2 pre-school leaders and 1 pre-school assistant
34–44 children:	2 pre-school leaders and 2 pre-school assistants

The staff–child ratios outlined above apply only to the sessional pre-school element of the service and only where all of the children in question are within the eligible age range, which is between 2.5 years and 6 years. Outside of the pre-school sessional services, providers must apply the staff–child ratios in respect of full-time, part-time or sessional services as outlined in the previous table (Department of Children and Youth Affairs, 2013b).

According to a national longitudinal study of children, called Growing Up in Ireland, the average number of children for each staff member in centres was between four and five, but the ratio for the infant section may have been lower (McGinnity et al, 2013).¹⁶

Funding for the free pre-school year covers 38 weeks. This means that many staff with the required qualifications may be unemployed until the next funded period begins. This is confirmed by a survey by the members-based organisation Early Childhood Ireland of its members in 2011, according to which many ECEC service providers offer employees contracts for 38 weeks rather than 52 in order to keep the same fees for parents (Early Childhood Ireland, 2012).

Wages

The National Childcare Strategy 2000 highlighted the need to develop a national pay scale for workers in early childhood education and care. However, the fact that services are mainly delivered through the private and community sectors means that organisations in these sectors are actually setting the terms and conditions (Oireachtas Library and Research Service, 2012).

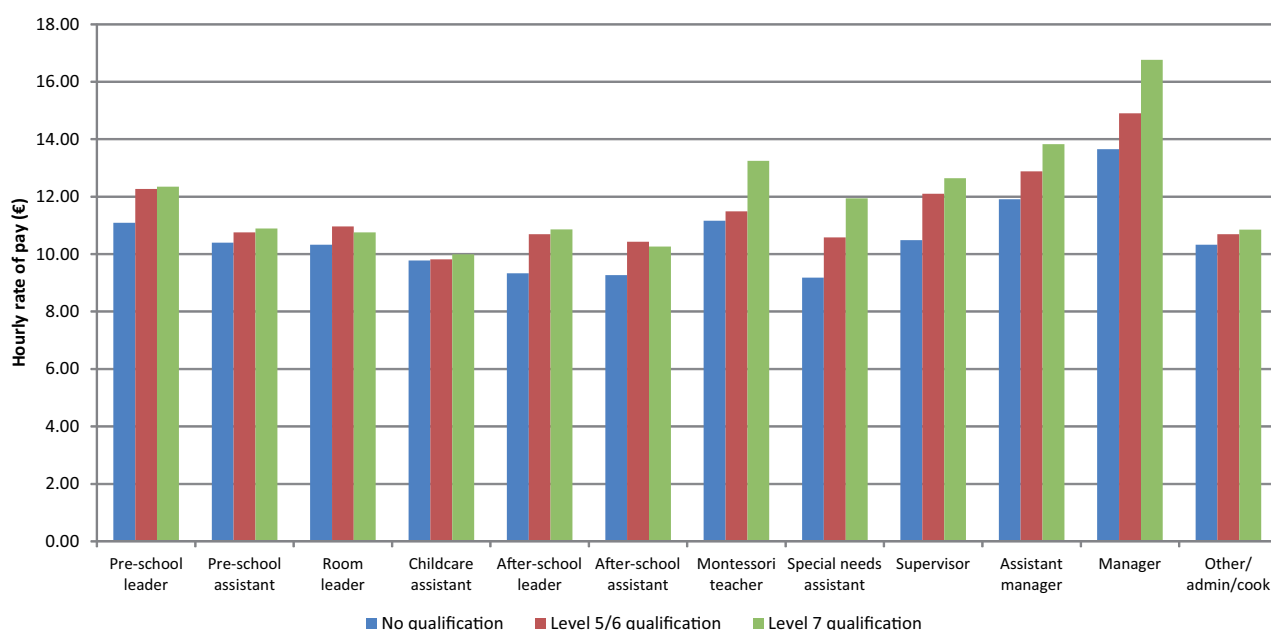
Childcare services provided in disadvantaged areas have often been part of the Community Employment scheme, a programme that provides long-term unemployed people and other disadvantaged groups with part-time and temporary placements within their community. A side effect of the scheme is high turnover rates, as participants may avail of the scheme only for one year. It has also been pointed out that this programme may have contributed to keeping ECEC salaries low, as the allowances paid by the employment agency are closer to previous welfare payments than to salaries in similar professions (Corrigan, 2004).

A salary survey undertaken in September 2012 by Early Childhood Ireland showed that, for all unqualified workers (except those in managerial positions), hourly rates started at the minimum wage (Figure 2). Wages are generally based on qualification levels as set out by the National Framework of Qualifications (NFQ). Wages for staff with level 5 qualifications, certificates for which are vocation-specific and require a general understanding of the subject matter,

¹⁶ Centre-based carers were asked to report the total number of children in the centre and the total number of childcare staff (in full-time equivalent) looking after them.

average €10.50 per hour. Staff with level 7 qualifications (the equivalent of an ordinary bachelor’s degree) earn an average of €11.24 per hour. Qualifications increase salary to a greater extent in the case of pre-school leaders and managerial and supervisory roles. Higher qualifications do not seem to have a strong influence on salary except in the case of Montessori teachers and managerial posts. Staff tend to get paid only for the time that they spend directly with children (Early Childhood Ireland, 2012). The Report of the Expert Advisory Group on the Early Years Strategy points out that in comparison, primary schoolteachers on the lowest point on the basic salary scale earn double (€30,700 per year) the salary of ECEC workers. It recommended that professionalisation should be supported by requiring adherence to an agreed salary scale as a condition of public funding, for example through reform of the capitation grant (Department of Children and Youth Affairs, 2013c).

Figure 2: Average hourly pay rates for childcare workers, by job category and qualification level, Ireland



Notes: Level 6 corresponds to a higher certificate; level 7 corresponds to an ordinary bachelor’s degree.
Source: *Early Childhood Ireland, 2012*

The link between salaries and qualifications is influenced by the free pre-school year. This establishes a minimum qualification of level 5 on the NFQ (or equivalent) in childcare or early childhood care and education for pre-school leaders as an eligibility criterion for funding.¹⁷

In-service training

Training has developed on an ad hoc basis, is often not certified, and is of variable quality. Many staff are ‘qualification poor, experience rich’ (Corrigan, 2004). A survey carried out in 2011 amongst Early Childhood Ireland members showed that less than half of facilities have staff with the national guidance for the protection and welfare of children, Children First (Early Childhood Ireland, 2011). More than half (55%) of family day-carers have no recognised qualification or training (McGinnity et al, 2013).

¹⁷ See <http://www.nfq.ie> for further information.

The Model Framework for Education, Training and Professional Development in the Early Childhood Care and Education Sector (2002) established five stages of professional development for practitioners with different levels of skills and responsibilities and a set number of supervised practice hours in an ECEC service.¹⁸ This framework highlighted the problems created by the lack of national credit system, in terms of recognising training programmes or having a credit-based framework for qualifications. This also has implications for having a clear career structure or indeed a professional identity. Since then, the five occupational profiles have been associated with different levels of qualifications that the NFQ established in 2004. Standards for awarding ECEC courses at different qualification levels have been established or reviewed.

In addition, since 2006, there is a National Quality Framework for Early Childhood Education (Síolta). This quality framework is composed of 12 principles, 16 standards and 75 components of quality. It includes one standard in relation to professional practice, which is then specified in five components that emphasise the need to provide evidence that they have achieved a certain skills level and the need to continue professional development. Since 2009, there is also an early childhood curriculum framework (Aistear), with guidelines regarding how the learning of children can be supported.

While the free pre-school year initiatives suggest that services must adhere to the principles of the two frameworks, neither of these frameworks – which were developed with the support of the Department of Education and Skills – has been funded for a national roll out. There is confusion in the sector regarding the status of the frameworks and, in terms of training, they have been used sporadically across the country and across services. There is a move to integrate the two frameworks, and a small fund has been allocated in the 2013 budget to the Department of Children and Youth Affairs for this initiative (Hayes, 2013).

A crucial influencing factor when it comes to the qualifications and training of staff is the introduction of the Free Pre-school Year Scheme in 2010, which establishes minimum qualification criteria in order to qualify for funding (see above). Also, in 2010, a Workforce Development Plan for the ECEC sector was developed. Access to training was one of the major issues identified during the consultation on the plan, with 40% of the current ECEC workforce not having the qualifications required to participate in the free pre-school year. Access to training is challenging partly because there are few distance-learning opportunities.

One of the inequities in relation to funding within the education system is that, while primary teachers of children aged 4–6 years have access to paid continuing professional development and are given time to avail of it, ECEC workers must pay for their own training and must access this training in their own time (Hayes, 2013).

The Association of Childhood Professionals asked, in June 2013, for progression routes for training. In addition, the largest trade union in Ireland (SIPTU) has asked the government to increase investment in childcare training, including classroom-based learning and on-the-job training and development (SIPTU, 2013). On 15 November 2013, the Minister for Children and Youth Affairs announced that €900,000 was to be allocated to Early Childhood Ireland and the Border Counties Childcare Network to provide training at levels 5 and 6 before the end of 2013. The 2014 budget will include €1.5 million for training and up-skilling (Early Childhood Ireland, 2013).

¹⁸ The five profiles, and associated number of hours required, are: basic practitioner (supervised practical experience amounting to a minimum of 160–300 hours in an ECEC service); intermediate (minimum of 320 hours); experienced practitioner (500 hours); advanced (supervised practical experience as appropriate); and expert.

The Netherlands

The 2005 Childcare Act (*Wet Kinderopvang*) completely re-organised the Dutch childcare sector (for children aged 0–4 years) by ending the provision of public services. Only private for-profit or not-for-profit providers now operate in the childcare market. While the change in policy led to a significant increase in childcare places, from 5.7% in 1990 to 34% in 2008, the developments with regards to quality and cost efficiency have been less positive (Plantenga, 2013).

Following recent government austerity measures, the number of children attending a childcare centre has gone down from 715,000 in 2010 to 683,000 in 2013 and the expectation is that, by the end of 2013, demand will have fallen by close to 30%. The sector employs 8,000 fewer people than in 2012, and the prognosis is that employment will shrink by between 20% and 25% compared to 2011 (Brancheorganisatie Kinderopvang, 2013). Experts have warned that ‘the downsizing of the sector may have a direct negative effect on the quality of childcare’ (Fukkink et al, 2013, p. 41). The sector’s social partners have also voiced strong concern about the effect of the cuts on quality. On 28 June 2013, the employer’s organisation sent a letter to all political parties, warning them of the possible effects not only in terms of quality but also in relation to the labour participation of mothers with young children. AbvaKabo, the sector’s trade union, conducted a survey of 2,322 ECEC employees, which shows that 76% feel that the delivery of quality care at their centre is under pressure (AbvaKabo, undated a). In response, it seems that the Dutch government overturned its decision to reduce the 2014 budget by a further €175 million.

ECEC setting

In the Netherlands, children can enter school from the day they turn four years, although school attendance only becomes mandatory at five years. The two most common formal ECEC arrangements for children aged 0–4 years are crèches (*kinderdagverblijven*) and care by a host family (*gastouderopvang*).¹⁹ Less common arrangements include parents’ participation crèches (*ouderparticipatiecrèches*), in which parents share the care for children, and a qualified caregiver looking after children in their own home (*leidster aan huis*). A recent trend is for crèches to stay open 24 hours a day. Children aged 2–4 years can attend a playgroup (*peuterspeelzaal*) twice a week for two or three hours. The primary objective of playgroups is to stimulate children’s socio-emotional and motor development. For young children with learning difficulties, there are VVE playgroups. VVE stands for Voor- en Vroegschoolse Educatie, meaning pre-school and early education. These playgroups help disadvantaged children increase their chances for better school and social experiences.

Working conditions

International comparisons point to relatively good working conditions for Dutch ECEC staff, at least in comparison to their colleagues in other countries (OECD, 2010).

Staff–child ratio and group size

In the Netherlands, the staff–child ratio and the maximum number of children in a group is regulated by law. As these vary depending on a number of factors, ECEC services make use of a calculation tool that has been developed on behalf of the Ministry of Social Affairs and Employment.²⁰ A recent change in the calculation method appears to have had a positive effect on group size but a negative effect on the staff–child ratio. Under the new rules, the ratio reduces the maximum group size under certain specific conditions: with two care providers, a group that consists of eight children aged under one year is now allowed to have only one older child, whereas in the past it was permitted to have four older children in the group. However, at the same time, the new method tends to increase the group sizes (due to rounding-up issues), which increases the workload of staff members and puts pressure on the quality of childcare.

¹⁹ Childcare for children aged four years and over (out-of-school care, *Buitenschoolse opvang*) is not considered in this paper.

²⁰ See the website <http://www.1ratio.nl>.

Wages

While salaries of ECEC staff are significantly below that of schoolteachers, wages are set to rise slightly now that the social partners have settled on a new collective agreement, following a long stalemate.²¹ Workers will receive an increase of 1% in August 2013 and February 2014, and a 2% increase in December 2014, as well as two one-off payments in March and September 2014. However, workers will lose their end-of-year bonus as of 2014. This agreement was reached on 23 May 2013 (see CAO Kinderopvang, 2013).

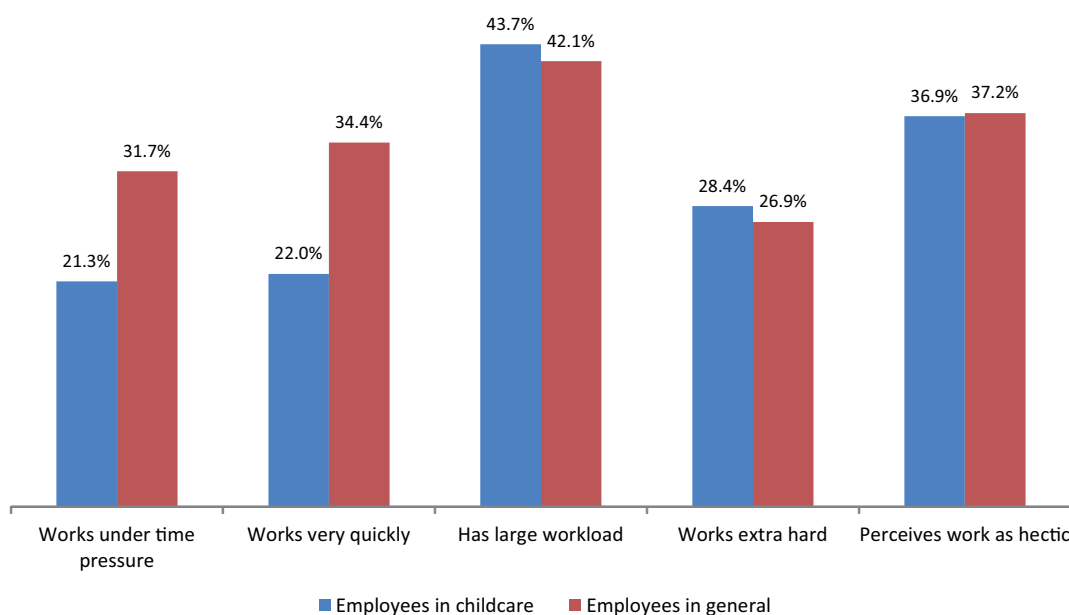
Turnover rate

A comparison of ECEC staff working conditions in OECD countries shows that turnover rates among childcare staff is lowest in the Netherlands, at 8.9% (OECD, 2011).

Workload

A 2010 study comparing working conditions of ECEC staff with those of Dutch employees as a whole showed that those working in early childhood education and care were slightly less positive in comparison to other Dutch workers about their workload (44% vs. 42%) (Figure 3). However, they perceived less work pressure than is the case for Dutch employees in general (21% vs. 32%) and were less likely to feel that they had to work very quickly (22% vs. 34%) (Kinderopvang FCB, undated).

Figure 3: Working conditions of ECEC workers compared to those of all workers, the Netherlands



Sources: Visser, S. de and Schoenmakers, F. (2012) (childcare sector); TNO, (2013) (workforce as a whole).

In-service training

The collective agreement that applies to the sector stipulates in-service training for ECEC staff. The agreement requires staff to follow training activities needed in order to carry out their job properly. The cost of training is paid by the employer. Career development plans need to specify the training budget, whereby training focuses on current and future functioning within and outside of the organisation (AbvaKabo, undated b).

²¹ Salary levels in ECEC start at €1,775 per month, going up to about €2,420, whereas school teachers commence their career at €2,073, which can increase up to approximately €2,991.

Since the establishment, in 2008, of the Bureau Kwaliteit Kinderopvang (BKK), a government agency that controls and monitors childcare quality, the system of in-service training has significantly improved.²² The aim of the BKK is to improve the pedagogical quality of childcare by bridging the gap between education and practice and by providing training to ECEC staff (Boonstra et al, 2013, p. 15). To achieve this, the BKK carried out the Working on Excellent Childcare programme between 2009 and 2012, which had four priorities: the development of a pedagogical framework; in-service training budgets; talent management to promote the further development of ECEC staff; and the promotion of collaboration between education and training (BKK, undated). The budget for in-service training has been made available through a €40 million subsidy from the Department of Social Affairs and Employment. A mid-term evaluation of the BKK's effectiveness points to increased awareness among ECEC staff of the in-service training budget: by 2010, around 40% of ECEC facilities had made use of the subsidy (Bureau Bartels, 2011 p. 32). The evaluation also shows that the majority of subsidy requests were made either to do more in terms of pedagogical schooling (52%) or to improve the pedagogical knowledge and skills of staff members (51%) (Bureau Bartels, 2011, p. 36).

Regarding the priority to stimulate the development of talented staff, the evaluation shows that by 2010, 64% of ECEC facilities had already worked on this; for these centres, a significant focus was to enable talented employees to follow additional schooling (Bureau Bartels, 2011, p. 61).

A further measure to improve the quality of Dutch ECEC staff has been the development of an interactive video training method. The NCKO study found that the interactive skills of ECEC staff with children in their group tend to be below average, and the training is geared towards improving these skills (Fukkink et al, 2013, p. 39). The development of this particular method is based on experimental research that showed that through video feedback intervention, the interaction skills of ECEC staff improved. In particular, the study found that video interaction guidance (VIG) has 'positive and persistent effects on the use of stimulating teacher behaviour and on their levels of sensitive responsiveness and verbal stimulation' (Fukkink and Tavacchio, 2010, p. 1,657).

Continuous learning in childcare centres

One of the priorities of the BKK Working on Excellent Childcare programme is to turn childcare centres into learning organisations (BKK, undated). This concept requires an organisation to be set up in a way that enables its workers to learn continuously, not just through official training but with and from each other, with the aim of achieving common goals, and to work at improving the entire organisation.

Inspired by Dutch research and research commissioned by the European Commission (Slot et al, forthcoming; CoRe, 2011), pilot projects were carried out in 11 childcare centres across the Netherlands in 2012. The projects varied not only in size, ranging from small to large centres, but also in the extent to which the organisations had previous experience with the 'learning organisation' concept.

The pilot projects highlight that, in a learning organisation, ECEC staff feel more engaged with the organisation and have a better understanding of their skills and those of their colleagues. This in turn provides more time to focus on the children's needs, which in turn is beneficial for the children.

The pilots provided valuable insights into what is needed to transform childcare centres into learning organisations. In a learning organisation, in-service training is focused on the needs of the individual ECEC staff member, taking into account developments in research and policy. Feedback and leadership are ingrained in these organisations where coaching is the norm, alongside a willingness to be critical.

On the basis of these 11 pilots, the BKK is now planning to enable learning organisations develop throughout the childcare sector.

²² See <http://www.stichtingbkk.nl/> for further detail.

Spain

ECEC setting

Early childhood education and care in Spain is voluntary and consists of two cycles – up to three years and 3–6 years. Education for 0–3 years is regulated on a regional level, usually by departments of education, although sometimes by departments of social welfare. The first cycle depends mostly on funding from municipalities; the state has more involvement at the second cycle. Royal Decree 132/2010 establishes the minimum criteria needed for ECEC centres for children aged 3–6 years, in terms of space, ratios and staff qualifications, as well as the staff qualifications required for ECEC services for children aged 0–3 years. The state also sets criteria for staff qualifications under the 2006 Education Act (*Ley Orgánica de Educación*). Article 2.1 of the Act establishes that staff should have a teaching degree. Staff for children aged 0–3 years can also include senior ECEC specialists, ECEC assistants and other staff with appropriate qualifications for the care of children of this age group. It follows that there is greater heterogeneity in ECEC services throughout the country for 0–3-year-olds than for 3–6-year-olds.

Only 7 out of 17 regions have legislation setting out the minimum criteria for ECEC services. Many regions (*comunidades autónomas*) do not have inspection services in place other than those related to health and safety criteria, while other regions inspect only some centres (Sarmiento and Ruiz, 2011). In many regions, the presence of children with special needs does not lead to a decrease in staff–child ratios (UNAF, 2012). A survey undertaken by the World Association of Early Childhood Educators (AMEI-WAECE) in 2011 amongst Spanish early childhood educators showed that the main reasons behind poor quality in ECEC services, according to the interviewees, were: the high number of children per classroom (particularly in the second level); the low recognition of ECEC staff; and the view that early childhood education and care is becoming more related to welfare and less concerned with education (AMEI-WAECE, 2011).

In 2008, the Ministry of Education started a plan called Educa3 to stimulate early childhood education for those aged 0–3 years. It aimed to create more childcare places for this age group that met criteria in relation to the quality of the childcare setting, curriculum and staff qualifications. Funding is conditional to having at least one teacher specialising in early childhood education for every six classrooms. The Educa3 2008–2012 plan allocated €5 million to training and included the goal of increasing the availability of training courses in early childhood education in collaboration with the regions. There were also plans to increase accreditation for staff experience.

Educa3 also included the following measures to increase in-service training opportunities and improve quality:

- expanding vocational training opportunities for early childhood education teachers (*ciclos formativos para técnico superior en educación infantil*);
- improving the recognition of experienced professionals and offering specific distant learning or onsite training modules;
- promoting the exchange of experiences between ECEC centres and their participation on EU programmes;
- promoting ICT to increase the quality of early childhood education and care.

As part of the measure to promote ICT, a website was developed for professional training and family education to facilitate access to education resources, and the exchange of experiences and didactic materials.

Two factors are likely to reduce policy interest in early childhood education and care, as well as funding of it: the impact of the crisis on public finances in Spain and the fact that the current government considers the first cycle of early childhood education and care as a family matter (UNAF, 2012). Two examples of this development are found in the autonomous communities of Madrid and Castilla y León, where the public network of early childhood education and care for children under three years has been dismantled (Alcrudo et al, 2012, pp. 70–71).

Working conditions

Group size and staff child ratio

ECEC staff–child ratios for 0–3-year-olds are regulated at regional level. The most frequent group sizes in Spain are: 8 per toddler group; between 12 and 14 in groups of children aged 1–2 years; and 20 in groups aged 2–3 years (Eurypedia, 2013). Staff–child ratios for 3–6-year-olds are regulated by the state. The legal maximum group size is 25 children, which is in line with the limits set in almost two-thirds of European countries (Llorent, 2013). Since 2012, as part of the austerity measures, the maximum limit can be extended by 20% in situations where new staff are not hired or the replacement rate for staff is below 50% (Eurypedia, 2013). According to data from the OECD, the ECEC staff–child ratio in Spain in 2011 was 12.8, which is below the OECD average (14.4) and the EU21 average (13.1) (Ministry of Education, Culture and Sport, 2013).

Wages

ECEC teachers are paid the same as primary schoolteachers. Educators in the second cycle (3–6 years) have working conditions and remuneration closer to those of teachers in primary education; this includes having holidays during the school-break period, rather than just one month, as is the case for first-cycle educators. This situation is encouraging those working in the first cycle to pursue training in order to qualify as second-cycle teachers or primary schoolteachers (Peñalver, 2009).

Staff in the public sector follow the payment scales established for all civil servants, as well as collective agreements. Staff in the private sector are paid according to three collective agreements at the national level; one agreement is for non-subsidised private education centres, one is for subsidised private education centres and one is specifically for ECEC centres.

The collective agreement specific to early childhood education and care was renewed in 2010 and will apply until the end of 2013 for all staff in private ECEC centres in Spain, as well as public centres managed by private companies. The collective agreement states that salary increases up until 2013 would be in line with fluctuations in the consumer price index. In 2013, monthly wages were: €1,360 for managerial staff, €1,343 for an ECEC teacher and €837 for a senior ECEC specialist.

Working hours

According to this new collective agreement specific to private ECEC settings, the maximum working hours per week is 32 hours for teachers, 38 hours for senior specialists and 39 hours for all other staff. Staff in the public sector tend to work 35 hours a week, with 25–30 hours spent in the centre (including 5 hours of non-contact time for meetings and talk with parents) and 5 hours for class preparation at home (Oberhuemer et al, 2010).

In-service training

Up to recently, training had not adapted to the requirements of the 2006 Education Act, with early-years teachers still being more prepared for work in primary school than in ECEC settings (Oberhuemer et al, 2010). However, the reform of European higher education has been fully implemented, and the initial training for ECED teachers can now differ significantly from primary education training. This can vary by university. In a survey by AMEI-WAECE, ECEC staff in Spain expressed their concerns regarding the fact that education was 'too theoretical' (Sánchez Muliterno, 2009). The fact that, up until recently, the first cycle of early childhood education and care did not involve an educational aspect meant until that staff at this level did not have the access to the same continuing professional development (CPD) opportunities as other educators. Moreover, ECEC training is not specific to the first cycle, but addresses both.

Those in private ECEC centres that do not deliver education services have more limited access to training (Peñalver, 2009). This was addressed in the 2010 collective agreement for private centres. Article 36 of that agreement stated that CPD undertaken voluntarily by staff should be paid by their employers. Article 37 went on to state that if training is part of a CPD plan, employers should make it possible for staff to undertake this training during working hours. In order to stimulate training, Article 56 set out that employers pay staff a supplement if training undertaken in the past three years adds up to 60 hours in the case of teaching and managing staff and 45 hours for auxiliary staff (as long as the training was organised or authorised by the employer). However, the new education law (Ley Orgánica para la Mejora de la Calidad Educativa), approved in December 2013, may bring changes to this as well to other aspects of training and working conditions.

Conclusion

The evidence gathered from the systematic reviews highlights the positive impact of adequate staff–child ratios in early childhood education and care on outcomes for children. The link is much clearer here than it is regarding group size. There is also evidence that staff–child ratios are particularly important for small children. This evidence should be taken into account in the reforms targeting ratios in Ireland and Spain as part of the austerity measures, and in relation to plans for the expansion of childcare places in Austria and Germany.

The Irish experience shows that having a clear qualification and training framework is important in terms of the career structure and professional identity of childcare workers. In Ireland, the Netherlands, and Germany, consultation processes to develop training frameworks have been useful in identifying gaps and needs and providing some coordination across disparate training schemes. A similar exercise seems to be needed in Austria, where there is a lack of clarity regarding existing training courses and needs. In Germany and the Netherlands, programmes and agencies have been established to promote and monitor in-service training, respectively. The two systematic reviews of studies on in-service training show that it leads to improvements in the pedagogical competencies of childcare workers in relation to professional attitude, knowledge and skills, as well as to an improvement in outcomes for children. There is, however, insufficient evidence to ascertain which aspects of training bring most benefits for children.

Another important finding is that even less intense forms of training can improve outcomes for children. This should be taken into account when designing training programmes. ECEC staff in Ireland have expressed the need for training courses with a format that is compatible with their work commitments. Short seminars seem to be favoured in Germany, while video interaction guidance has already had good results regarding interaction skills in the Netherlands. Approaches that have been implemented, in the countries studied here, to ensure access to training include: having a number of training days stipulated in staff contracts (Germany); and including training in collective agreements, as is the case in the Netherlands and Spain, where collective agreements stipulate that in-service training should be reimbursed by the employer. In addition, the collective agreement in Spain gives incentives to undertake training in the form of salary bonuses. This contrasts with the current salary structure in Ireland, which gives very few incentives to upgrade qualifications beyond the level required to be eligible for the Free Pre-school Year scheme.

One of the reviews explains that shorter forms of training can be beneficial because they usually target a very specific set of skills. As staff working with infants and toddlers have varying qualification requirements, shorter forms of in-service training need to be tailored to specific needs in order to be effective. This does not seem to be happening in Spain, where available training is not specific to early childhood education and care.

While there is plenty of evidence about the benefits for children of early childhood education programmes (particularly in relation to specific curricula and programmes), few systematic reviews focus specifically on the link between working conditions, training and outcomes for children. Moreover, many reviews looking into the associations between different aspects of quality do not isolate the effects of different aspects of structural quality. Furthermore, the results of studies that do isolate the impact of these different elements need to be interpreted with caution, due the influence of the duration of the childcare received and other factors, such as different elements of working conditions, other aspects of early childhood education and care, and the influence of social and family backgrounds. The link between structural quality and outcomes for children is a complex relationship mediated by process quality. By gathering evidence from studies throughout the EU28, the systematic review commissioned by Eurofound will give a clearer picture of this relationship.

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