



Curriculum and Quality Analysis and Impact Review
of European Early Childhood Education and Care



613318

CARE

Curriculum Quality Analysis and Impact Review of European ECEC

Instrument: Collaborative project

Call Identifier: FP7-SSH-2013-2

Early childhood education and care: Promoting quality for individual, social and economic benefits

WP3 Integrative report contribution

DUE DATE OF DELIVERABLE: 31 DECEMBER 2016

ACTUAL SUBMISSION DATE: 4 OCTOBER 2016

Start date of project: 01-07-2016

Duration: 36 months

CARE contractor: Aarhus University

Title: WP3 Integrative report contribution

Organisation: Aarhus University

Main authors of this report:

Bente Jensen (bj@edu.au.dk) (Denmark)

Rosa Lisa Iannone (rli@edu.au.dk) (Denmark)

Contributing authors:

Chiara Bove (Italy)

Silvia Cescato (Italy)

Peter Jensen (Denmark)

Malgorzata Karwowska-Struczyk (Poland)

Susanna Mantovani (Italy)

Olga Wyslowska (Poland)

Astrid Würtz Rasmussen (Denmark)

Acknowledgements

This report is based on WP3's publications, including 3.1 "Comparative review of professional development approaches", 3.2 "Professional development and its impact on children in early childhood education and care: A meta-analysis on European studies", 3.3 "Report on 'good practice' case studies of professional development in three countries" and 3.4 "Recommendations for common policy across the EU regarding professional development as an element of quality in ECEC and child wellbeing for all". Partners and external contributors have been many, named in each of the reports.

Number of PM: 0.5

Dissemination level: PU

Version	Date	Authors	Status	Changes
0.1	26.09.2016	Jensen & Iannone	Draft	
0.2	04.10.2016	Jensen & Iannone	Completed	

Project co-funded by the European Commission within the Seventh Framework Programme (2014-2017)	
Dissemination Level	
PU	Public
PP	Restricted to other programme participants (including the Commission Services)
RE	Restricted to a group specified by the consortium (including the Commission Services)
CO	Confidential, only for members of the consortium (including the Commission Services)

This study was conducted with a grant from the Seventh Framework Programme of the European Union, Grant Agreement 613318.

Table of contents

Executive summary	4
Introduction	5
(WP3.T1) Description and comparisons of professional development in Europe	6
(WP3.T2) Professional development as a moderator of the effects of ECEC: A quantitative analysis..	8
(WP3.T3) Innovative approaches to professional development: Case studies	9
(WP3.T4) Towards effective professional development in Europe.....	11
Integration	12
Conclusion.....	14
Recommendations	15
References	17

Executive summary

This report presents the main essences of each of WP3's research endeavours carried out throughout the project "Curriculum Quality Analysis and Impact Review of European ECEC" (CARE), highlighting the most important research questions, data, findings and insights. We begin by presenting WP3's main objectives in CARE. These include drawing on and creating research on the link between (pre-service and in-service) professional development policies, initiatives and practices and their effects on child outcomes, with a particular focus on the vulnerable and social inclusion. Tantalizing was an analysis and comparison of innovative 'best practices' in professional development strategies. Under four sub-sections, WP3's research and discussions are considered, with an integrative reflection on the whole, followed by some concluding remarks and recommendations for policy, practice and research.

To begin, CARE's Danish, Italian and Polish partners undertook a comparison of professional development across 10 European countries (WP3.T1), assessing current professional development systems and strategies for ECEC. The focus was on continuities, discontinuities and contradictions in education and training, qualification levels, organisation of work, license requirements, legislation, ratio of qualified/non-qualified staff, etc. This culminated in a cross-country analysis reported in D3.1 "Comparative review of professional development approaches" (Jensen et al., 2015).

Secondly, CARE's Danish partners carried out a quantitative analysis of professional development, examining it as a moderator of the effects of ECEC (WP3.T2). Findings were presented in D3.2, "Professional development and its impact on children in early childhood education and care: A meta-analysis on European studies" (Jensen & Rasmussen, 2016).

Thirdly, CARE's Italian partners, together with the Danish and Polish partners led research on innovative approaches to professional development through case studies (WP3.T3). In D3.3, "Report on 'good practice' case studies of professional development in three countries" (Bove et al., 2016), our objective was to identify innovative and dynamic learning approaches to professional development based on a literature review, with an outlook on peer-education, supervision and team-professionalism, reflective practice, organisational learning and leadership, technology in professional development, and intercultural issues. The cases were used to highlight innovative approaches to professional development as they operate in practice and as they could inspire future initiative.

For WP3's final task, (WP3.T4) towards effective professional development in Europe, CARE's Danish and Italian partners synthesised the research, culminating into proposals for exemplary, methodologically innovative approaches to professional development in ECEC that improve child outcomes in general and tackle educational disadvantage in particular. This was achieved in D3.4, "Recommendations for common policy across the EU regarding professional development as an element of quality in ECEC and child wellbeing for all" (Jensen & Iannone, 2016).

Introduction

In the project “Curriculum Quality Analysis and Impact Review of European ECEC” (CARE), Workpackage 3’s (WP3) work examined systems of professional development within early childhood education and care (ECEC) in terms of their potential to increase child wellbeing and learning *all*. Professional development, as such, applies to a full range of activities that attempt to increase the knowledge base, skills sets and attitudinal perspectives of early years practitioners and professionals as they engage in child care, preschool education, and kindergarten-to-third-grade teaching, as well as educational support services and home visits (Harvard Family Research Project, 2004, cited in Sheridan et al., 2009), as well as related activities such as parent education and support (Jensen et al., 2015, p. 22). Professional development programmes are composed of pre-service training at the vocational, bachelor’s or master’s level, and the ongoing professional development processes that take place in the ECEC centres, such as in-service-training or lifelong learning initiatives related to ECEC. Leading from this, came particular attention to innovation and how best to address disadvantaged children and the vulnerable. This has been achieved by broadening the base data regarding quality in ECEC by:

1. Drawing on data from existing longitudinal studies regarding both ongoing and concluded ECEC professional development programmes, as well as collecting general information on professional development systems and more detailed information regarding specific initiatives in CARE’s participating countries;
2. Analysing and comparing professional development systems and identifying innovative examples of ‘best practice’. The emphasis was on exploring new effective approaches to professional development aimed at enhancing education and improving workforce training strategies for early childhood practitioners. The evidence was used to consider how pre-service and in-service systems of professional development influence ECEC quality and child outcomes, while suggesting future ECEC policy strategies.

We began by assessing current professional development systems and strategies for ECEC, focusing on continuities, discontinuities and contradictions in education and training, qualification levels, organisation of work, license requirements, legislation, ratio of qualified/non-qualified staff, etc., culminating in a cross-country analysis reported in D3.1 “Comparative review of professional development approaches” (Jensen et al., 2015). We then examined the impact of different approaches to professional development of ECEC staff on child outcomes, with a particular focus on social inclusion and tackling inequality. Findings were presented in D3.2, “Professional development and its impact on children in early childhood education and care: A meta-analysis on European studies” (Jensen & Rasmussen, 2016). In D3.3, “Report on ‘good practice’ case studies of professional development in three countries” (Bove et al., 2016), WP3’s objective was to identify innovative and dynamic learning approaches to professional development based on a literature review, focusing on peer-education, supervision and team-professionalism, reflective practice, organisational learning and leadership, technology in professional development, and intercultural issues. Following this, three European cases were used to highlight innovative approaches to professional development as they operate in practice and as they could inspire future initiative. As a whole, WP3’s research activities culminated into proposals for exemplary, methodologically innovative approaches to professional development in ECEC that improve child outcomes in general and tackle educational disadvantage in particular. This was achieved in D3.4, “Recommendations for common policy across the EU regarding professional development as an element of quality in ECEC and child wellbeing for all” (Jensen & Iannone, 2016).

There are considerable variations in patterns of professional development among ECEC practitioners in European countries with regard to both pre-service and in-service education and training. There

exists a substantial body of literature and ongoing studies linking aspects of professional development to child outcomes, including cognitive, language, social, emotional and educational development, as well as more general indicators of learning and wellbeing. This research suggests that, particularly among disadvantaged children, life chances are dependent on the quality of the educational opportunities available to them from an early age, and thereby on the professional development of ECEC practitioners.

In the following pages, we present the main essences of each of WP3's research endeavours (WP3.T1, WP3.T2, WP3.T3, WP3.T4) highlighting our research questions, data, findings and insights. An integrative reflection on the whole is presented afterwards, followed by some concluding reflections and recommendations.

(WP3.T1) Description and comparisons of professional development in Europe

For this task, we examined pre-service and in-service professional development strategies of ECEC educators across 10 European countries from a variety of angles (Jensen et al., 2015). Data were collected through a comprehensive questionnaire that posed open questions regarding the current resources, practices, policies, standards and innovative approaches undertaken in each country. Results directly contributed to WP3's objective of researching ECEC systems in terms of their significance and potential to increase learning and wellbeing for children.

We addressed the following research questions:

1. Are countries' policies and professional development systems (pre-service and in-service) aimed at strengthening educational attainment and competence development among ECEC staff likely to lead to improved professional competences in meeting the range of demands and challenges of today's societies?
2. To what extent are professional development systems responding to increasing expectations that ECEC staff are able to identify and implement standards for high-quality services and meet children's needs, both in general and for the most vulnerable?
3. Which conditions (e.g. resources, policy and local authorities' prioritisation of high-level services) are provided for professional competence development (pre-service) and for sustainable workforce development (in-service), and to what extent are innovative approaches to ECEC systems under development in CARE's participating European countries?

A cross-country analysis shed light on the differences, similarities and overall trends in European ECEC systems across six themes:

1. *Pre-service professional development: ECEC educators' qualification requirements, standards and resources:* The broad trend towards greater standardisation and academisation was identified, with an increasing demand for university level qualifications resulting in practical experience being replaced by theoretical knowledge. Reflective and competence-based approaches which link knowledge and practice have been reported as best suited (rather than e.g. knowledge transfer approaches alone) to preparing ECEC professionals for contemporary challenges (ibid., pp. 132-134).

2. *Characteristics of in-service professional development for ECEC educators:* While there are vast differences between countries in terms of resources and regulation of in-service training, two opposing approaches have emerged. The first places responsibility for continuing professional development with the individual (or e.g. professional organisations) in an entirely decentralised system with little or no regulation. The second places responsibility with national or local authorities which establish systems for continual professional development (with varying degrees of transparency and regulation) and provide some degree of support and resources. While there is an increased focus on pre-service qualifications of ECEC educators, in most countries, as well as within research, the potential benefits of a more systematic approach to in-service professional development, and of establishing strong links between pre-service and in-service professional development, remain largely unexplored and unexploited (ibid., pp. 134-135).
3. *ECEC educators' role, responsibility and quality concepts:* There are considerable differences with regard to the degree of standardisation in terms of defining the role and responsibility of ECEC educators and the concept of quality ECEC provision. In the majority of countries, however, these areas remain self-governed, either at the local authority level or the institutional level. Therefore, although we can infer that quality is self-governed where there is no national intervention, this does not necessarily result in every child gaining access to high quality ECEC throughout any given system. There may be variations to the point of contrast in the characteristics and also delivery of ECEC, both horizontally and vertically, throughout European ECEC systems (ibid., pp. 135-137).
4. *Policy developments and reforms:* Reported reforms centred on the following issues: raising qualification standards of ECEC professionals; increasing the proportion of staff with professional qualifications; a greater integration of ECEC systems that split children aged zero to three and three to six; and improving access to in-service professional development. While the approaches taken vary considerably between countries, the overall picture is one of a greater focus on quality (regarded as closely linked to staff qualification levels) and a greater degree of standardisation. In this context, reforms and new discussions seem to be heading in the direction that further in-service training is a right and a duty for ECEC staff, addressed at a political level (ibid., pp. 137-139).
5. *Quality assurance regulation, monitoring and evaluation:* Three approaches to quality assurance were identified: a centralised system whereby all ECEC provision is evaluated according to standard criteria by an independent body; a decentralised system whereby ECEC providers evaluate themselves according to criteria determined by providers in cooperation with local authorities (although often within the framework of regional or national guidelines); and a stakeholder-based approach which supplements self-evaluation with, for example, parental evaluation. Overall, each approach carries with it strengths and weaknesses, which depending on context, will impact quality provisions in varying ways (ibid., pp. 139-140).
6. *Highlights of innovative approaches:* One common approach to innovation within ECEC is establishing closer ties between policy, research and practice, both in terms of incorporating research findings within practice and ensuring that research is firmly rooted in practice (macro-level). Another promising approach involves developing the innovative competences of both the individual ECEC professional (linked to concepts such as the reflective practitioner and lifelong learning) (micro-level) and the ECEC organisation (approaches to organisational learning, communities of practice, etc.; meso-level). As a whole we perceive the need for a greater understanding of how best to cultivate innovation within ECEC settings (ibid., pp. 140-142).

The analyses and findings led to three additional insights: the trend of increased (critical) reflection in practice; European ECEC systems' disparate strategies of addressing and responding to the most vulnerable children; and innovative approaches that build on professional development networks and communities of practice which fulfil competence development both on the individual level and system-wide.

Every country is in a process of rethinking, renewing and implementing professional development. They are looking for sustainable and *innovative practices*, trying to network within their systems and between countries, moving towards better monitoring and evaluation standards/processes/instruments. This common trend makes the comparison and dialogue between countries particularly 'generative' and useful. There is a strong discourse that confronts the trends of restricted resources and discriminatory provisions. However, a variety of innovative practices that draw on collaborations between stakeholders counter these trends and foster a new awareness across the micro-, meso-, and macro-levels of European ECEC that can lead to the continuous enhancement of high-quality ECEC. Of additional importance is the question addressing to what extent European ECEC affects child outcomes. This question has been addressed in WP3's D3.2, "Professional development and its impact on children in early childhood education and care: A meta-analysis on European studies" (Jensen & Rasmussen, 2016). Furthermore, developing and implementing innovative approaches in ECEC is of great interest and importance. In WP3's D3.3 "Report on 'good practice' case studies of professional development in three countries" (Bove et al., 2016) such contributions were explored through case studies in three European countries.

(WP3.T2) Professional development as a moderator of the effects of ECEC: A quantitative analysis

For this task, we reviewed existing evidence on the impact of professional development in ECEC on child outcomes in Europe. An essential part of this study (Jensen & Rasmussen, 2016) was a meta-analysis of the results of existing European studies focusing on investigating the impact of professional development of pre-school educators on child outcomes, i.e. conduct a quantitative analysis of the effect of professional development on child outcomes in Europe. To do so, there was a systematic search for and collection of a range of relevant studies of European experiences, and a meta-analysis of the results of these studies was conducted.

The studies included in the meta-analysis all concern professional development in formal pre-school centres in Europe. Focus was on effects directly on child outcomes and thus, the potential effects of professional development on the pre-school educators' own outcomes was ignored. The choice was to focus primarily on the effects on child outcomes, as positive effects for children have to be the ultimate goal of engaging in professional development.

Professional development is increasingly being addressed as a potential way of improving the teaching quality of ECEC and thereby improving child outcomes (Schachter, 2015). This has led to a growing interest in evaluating the impact of professional development interventions and to the emergence of a number of reviews of the effects of professional development in ECEC (e.g. Powell & Diamond, 2010; Schachter, 2015; Zaslow et al., 2010). These reviews are mainly based on US research. WP3's undertaking, therefore is of particular relevance since we are not aware of previous studies collecting *general* evidence on European professional development experiences, despite having knowledge of several studies investigating specific professional development experiences in European countries. In summary, WP3's review and meta-analysis aimed at answering the following research questions:

1. For children under the age of six in formal childcare, can child outcomes be improved by the professional development of pre-school educators?
2. What is the effect of in-service training of pre-school educators on child outcomes?

The meta-analysis initially included nine European studies that passed some rather strict inclusion criteria. All included studies investigated professional development in formal pre-schools (i.e. they only focused on changes within pre-schools) and were based on data from Denmark, France, Germany, the Netherlands, and Wales. The studies have different focus points despite all being concerned with child outcomes: literacy, reading or language (Cviko, McKenney & Voogt, 2014, Ecalle et al., 2015, and Henrichs & Leseman, 2014), mathematics (Gasteiger, 2014), or behaviour and self-regulation (Hutchings et al., 2013, Jensen, Holm & Bremberg, 2013, Jensen, Jensen & Rasmussen, 2015, Perels et al., 2009, and Rönnau-Böse & Fröhlich-Gildhoff, 2009). Thus, there was a lot of variation in the outcomes investigated. Despite the small number of studies included and the wide variety of outcomes, results show a significantly positive effect of professional development on child outcomes. The overall effect size was of 0.35 (with a 95% confidence interval from 0.20 to 0.51).

Previous reviews primarily based on US studies (e.g. Fukkink & Lont, 2007; Zaslow et al., 2010) have similarly concluded that professional development has a positive impact on child outcomes. Fukkink and Lont (2007) perform a meta-analysis and reported an overall effect size of 0.55, although this is not statistically significant (at 5% level). This is slightly higher than WP3's estimated overall effect size of 0.35 from European studies, but illustrates that the European studies do not necessarily deviate much from the US studies. Moreover, a recent meta-analysis of the effects of professional development on child outcomes in language and emergent literacy (Markussen-Brown et al., 2015, also relying on studies from North America) revealed statistically positive effects for different outcomes, with overall effect sizes in the range of 0.18-0.46.

The results from the US are interesting and encouraging but not necessarily directly comparable to effects of professional development in Europe. It is therefore very important that we also get more research-based evidence from Europe. The results from WP3's meta-analysis point in the direction that professional development has a clear positive impact on child outcomes and since the available studies are all very recent, it seems that research on the impact of professional development is on the rise in Europe. The exact mechanism(s) behind WP3's findings need to be further explored, but with more focus on professional development generally across Europe, there is potential for further research in the coming years. With this evidence, and hopefully, evidence from more studies in the future, we can compare to the lessons learned from the US context in more detail. This will make culturally-sensitive questions less important and provide enough power and degrees of freedom to carry out a complete moderator analysis to identify the most important and efficient aspects of professional development for child outcomes.

(WP3.T3) Innovative approaches to professional development: Case studies

In WP3's D3.3 "Report on 'good practice' case studies of professional development in three countries" (Bove et al., 2016), exemplary approaches to innovative in-service professional development of ECEC practitioners in three countries (Denmark's VIDA programme, Italy's Reggio Emilia and MIBA project, and Poland's ŁÓDŹ Public Crèche Network) are presented. The cases were selected according to a set of *common criteria* drawn from the literature review conducted in D3.3: they are non-episodic, systemic and sustainable, drawing from networking, are transferable and can be disseminated, are creative and flexible, focus on key-figures (coordinators, managers, supervisors),

involve technologies and top-down/bottom-up approaches, involve active and participatory processes, include connections to research, and focus on experiential learning/engagement of individuals/groups. Along with these common criteria, some additional local/national criteria were considered in each case study through situated-based data collection methods in order to provide in-depth/situated and comprehensive descriptions (ibid., p. 9).

Data collected in each of the three cases include both existing and new data. Case studies were conducted with the aim of exploring new and effective approaches to professional development aimed at enhancing education and improving workforce training strategies for early practitioners. Findings revealed that there is a largely shared interpretation of *innovation* in ECEC, despite the cultural, geographical, and political differences that characterise each country.

The ECEC personnel involved in our study (stakeholders, coordinators, educators and caregivers), working in the field, often underlined their need for sharing and exchanges with others in order to implement and transfer new knowledge, develop new attitudes and competences and design and re-design new practices in order to enhance children's learning, wellbeing and ECEC quality. In brief, findings highlight:

- There is a widespread interpretation of innovation in professional development connected to social participation, networking, exchange, collaboration, and reciprocal learning from all professionals, at different levels.
- Sustainability in professional development, i.e. regularity, stability and professional development choices which incorporate peer-to-peer strategies in training and a wide dissemination, implemented by regular and affordable resources, are considered to have a strong impact and have been exemplified in various forms according to local traditions and ECEC organisation.
- The interplay between research, education and practice, as already stated in the WP3's D3.1 (Jensen et al., 2015) emerges as a main finding from the three cases.
- There are a variety of dynamic ways of connecting the micro-, meso- and macro- levels in ECEC, and combining top-down and bottom-up approaches (or vice versa), as exemplified by the three cases.
- Experiential learning, workshops, knowledge-based and change-oriented pedagogical practices are emphasised as fundamental.
- The role of the coordinator or manager emerged as a key element in successful in-service professional development.
- Professional development can have an impact on educational policies at the local and national levels.
- Practitioners' involvement when designing professional development is important.
- The three cases point out the need to connect reflection to practice/actions, to foster critical reflection processes and practice analysis, and to translate knowledge into practice.
- Time, stability of the group of professionals and creativity are key components in promoting change in practices.
- Outcomes regarding children exist and can be measured (Denmark).

- Technology can be key for documentation and in creating virtual communities of learners (Italy).

The cases examined seem to have acted as *engines of innovation*. Findings from the three cases show a common interpretation of innovation as being closely connected to professional participation, active engagement and reflectivity. And, in all three cases, the social dimension of innovation emerged clearly, following the definition of social innovation as “the process of collective idea generation, selection and implementation by people who participate collaboratively to meet social challenges” (Dawson & Daniel, 2010, p. 16 quoted in Jensen et al., p. 19), although social is interpreted with some differences in each context. The various interpretations of innovation, however, may be viewed as multivocal/multilevel processes, involving many actors in participatory situated learning (Lave & Wenger, 1991).

Overall, the three cases explored in D3.3 (Bove et al., 2016) are examples of an *active concept of learning and professional growth*, reported by educators as practical, realisable and meaningful forms of innovative professional development. The outcome issue, meaning the measurable effects of professional development on children’s learning, emerged only from the Danish case. As such, there is a need for further research on how innovation is effectively translated into renewed practices that promote children’s wellbeing and learning. The need to provide the ECEC workforce with permanent opportunities for continuing professional development based on active engagement and participation is a shared idea and a priority for the construction of high-quality ECEC, which emerged from WP3’s studies. Innovation in professional development, thus, is conceived of as much more than a productive investment in human resources and an important cultural effort.

(WP3.T4) Towards effective professional development in Europe

In WP3’s D3.4 report, “Recommendations for common policy across the EU regarding professional development as an element of quality in ECEC and child wellbeing for all” (Jensen et al., 2016), the discussion and recommendations build on all of WP3’s work within CARE, including: 1) a review of the systems of professional development, pre-service and in-service across 10 European countries and the impact that structural and processual shifts have on European ECEC quality and child development (D3.1); 2) a meta-review of extant European studies that examine the impact of professional development on child outcomes, conducted as a meta-analysis (D3.2); and 3) results from a comprehensive review of innovative approaches to professional development in ECEC and exemplary case studies from three European countries (D3.3).

Our overall aim was to highlight priorities in ECEC professional development, based on WP3’s findings and develop recommendations regarding high-quality provisions for common EU-policies. This led to the identification of six policy priority areas, namely: i) the academisation of professional development; ii) in-service and ongoing professional development; iii) the leveraging of communities of practice (CoP) and communities of innovation (CoI); iv) quality in professional development; v) innovative approaches to professional development; and vi) addressing the vulnerable through professional development.

The *good practices* highlighted were chosen as examples, given their success. However, these must be regarded as practices that may inspire changes, which must nevertheless be adopted to cultural and systemic contexts. In an attempt to overcome the dualisms of structured-interactive systems and structural-processual approaches to quality enhancement, we acknowledge that the recommendations presented can be applied to ECEC settings across Europe, though actors and methods may vary. The strive is to strengthen European ECEC without suggesting radical system changes that disregard

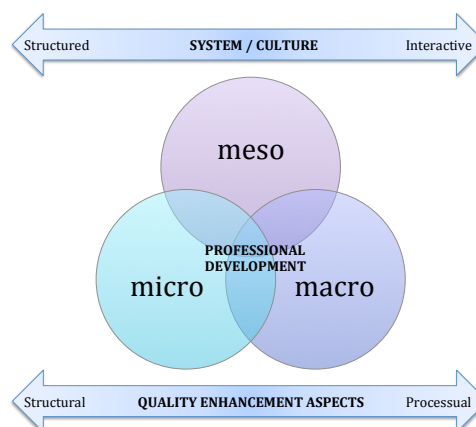
historical legacies. In light of this, findings and recommendations address implications for policy, practice and research for each of the six policy priorities identified.

Since ECEC's policies, systems and professionals' work is constantly evolving, involving new challenges and new requirements, work content and expectations also change from year to year. In order for ECEC as a whole to be able to meet European objectives of strengthening child outcomes for *all*, enhanced and continued professional development (both pre-service and in-service) is crucial.

Integration

Insights across WP3's work as a whole lead us to consider how common EU-policies would raise benchmarks and also close the gaps that exist between national ECEC systems while ultimately strengthening the EU's ECEC integrally, enhancing child outcomes for *all*. Professional development's impact can be global as its pursuits apply to a full range of activities at the micro-, meso- and macro-levels of ECEC (see Figure 1) that increase practitioners' knowledge, skills and attitudinal perspectives (as depicted in Figure 2) as they engage in in-class activities, as well as educational support activities, and interactions with parents and the wider community (Sheridan et al., 2009).

Figure 1. Professional development, contextualised



(Jensen & Iannone, 2016, p. 6)

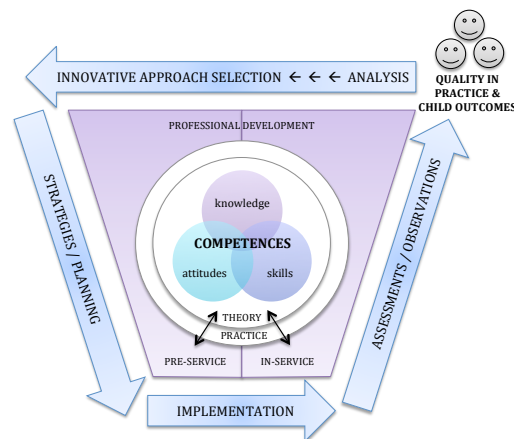
We have established through CARE that professional development, as an element of ECEC quality, has a positive impact on child outcomes – despite some ambiguity as to the specific elements of professional development (e.g. Jensen & Rasmussen, 2016; OECD, 2006, 2012, 2015; Slot et al., 2014) – also in line with findings from an extensive review of research in ECEC professional development (Zaslow et al., 2010). In terms of structural characteristics, this entails teacher qualification and group size for example (Howes et al., 2008; Slot et al., 2014; Thomason & La Paro, 2009) and in process changes, quality addresses the social, emotional, physical as well as learning activities and interactions of children (Slot et al., 2014, p. 48). Particularly useful and meaningful for quality and outcomes are a focus on practice in professional development, combined with specialised courses that are directly related to practice, collective participation in professional development and the use of child assessments to evaluate practice. Yet, the resources, provisions and types of professional development vary considerably throughout Europe, often with too few opportunities available, especially in the public sector, with reports of a greater need for professional development than what is provided (Early et al., 2007; Eurydice, 2009; Jensen et al., 2015; Oberhuemer et al., 2010; OECD, 2006, 2012; Zaslow et al., 2010). Further to this, ongoing professional development aligns with the European agenda of lifelong learning, and increases ECEC staff's professionalisation,

competences and mobility (UNESCO, 2004). As a whole, professional development must address the learning needs of ECEC professionals so that they are not treated as static, but rather, as actors who are dynamic and engaged in continuous reflective practice, not only as an individual competence development strategy, but as competence development system-wide (Jensen et al., 2015; Urban et al., 2011).

Over the course of the CARE project, we have encountered exemplary, innovative approaches to professional development in ECEC, which naturally reflect the distinct needs and priorities of their settings. Figure 1 models how professional development encompasses coordination between the micro-, meso- and macro-levels of governance and practice. At the same time, there are systemic and cultural arrangements which influence professional development, as well as structural and processual aspects affecting ECEC quality enhancement. As a result, contextual differences will account for quality implementation trajectories, however, recommendations made herein, wholly based on WP3's research findings, reveal foundational values and features, which would enhance professional development and ECEC altogether. The recommendations offered can help raise European standards, yet cultural sensitivities and systemic needs will influence how best to implement quality enhancement changes within each of the national, regional and local settings.

Illustrating the pivotal influence of professional development in ECEC, Figure 2 highlights how professional development encompasses both pre-service and in-service education and training that draws from theory and practice to enhance competences. In any given context, there is a baseline, whose need for renewal and/or change leads to the selection of innovative approaches to professional development. The baseline could relate to competence in teaching, learning aspects, leadership, child interaction methods, reflective practice, etc., and in turn, strategies for an intervention or further professional development are chosen (see Bove et al., 2016 for examples of innovative approaches). The final step in Figure 2 and the ongoing process of professional development renewal is to implement the chosen strategy/ies and assess them in terms of their qualitative impact on child outcomes.

Figure 2. Professional development and its impact



(Jensen & Iannone, 2016, p. 7)

Given professional development's central role in ECEC, there are implications for policy, practice and research which can contribute to the ongoing renewal of practice. For example, there are structural and processual changes that can be enhanced for, through and in light of professional development. Structural aspects of high quality may include the actual provision of professional development, availability of resources, time and materials, quality assurance measures, policies and reforms. Processual aspects would affect elements such as communication within and across ECEC centres, wider networks, pedagogical support and evaluation methods. Complementing these considerations

for professional development enrichment, it is also vital that research be better able to answer more specific questions about the content, processes and embeddedness of professional development that lead to positive outcomes (Bove et al., 2016; Jensen et al., 2015; Jensen & Rasmussen, 2016; Karwowska-Struczyk, Wyslowska & Wichrowska, 2016) so that appropriate interventions yielding better child outcomes may be chosen.

Emphasised earlier, ECEC's professionals' work is constantly evolving, involving new challenges and new requirements. In order for ECEC as a whole to be able to meet European objectives of strengthening child outcomes for *all*, continued professional competence development is crucial.

Conclusion

This report has condensed insights from WP3's research on professional development in ECEC and its impact. Despite a current lack of conclusive findings that trace out which specific elements of professional development influence child outcomes, we have learned that there is a clear positive effect overall, making this a facet in ECEC of strategic and social importance. This is especially significant, given the unequal support for professional development (particularly in-service) across Europe. There are real tensions around the organisation of support (financial or other) for professional development. Nevertheless, there is resonance throughout Europe, calling for increased links between theory and practice for pre-service and in-service so that competences (knowledge, skills and attitudes) can draw from theory to realise high-quality practice. In addition, attention is needed to evidence the distribution of (and norms for) formally educated versus non-education staff in ECEC settings and the positive link to quality improvement and impact on child outcomes.

We have called attention to the priority area of the vulnerable and inclusiveness in ECEC, for professional development that enhances child outcomes for *all*. The challenge for practitioners is to develop competences that can fulfil the demanding tasks of increasingly heterogeneous ECEC settings. At the core, national systems across Europe struggle with definitions of *who* the vulnerable are, and thus, how to address diversity, particularly in in-service professional development. Moreover, research on the link between professional development that addresses the vulnerable and child outcomes is pressing.

We also distinguished that ongoing focus on innovative approaches must occur on three levels in order to ensure a renewal of practice and high-quality outcomes: 1) a macro-level (i.e. form, content, delivery modes, e.g. in the reforms of pre-service education); 2) an inter-organisational or meso-level, also inter-sectorial (e.g. staff working together with research, universities, municipal sectors); and 3) a micro-level or individual and organisational learning approach (e.g. in-service professional development programmes as well as communities of practice and innovation). Especially highlighted throughout several of WP3's reports was the value and influence of reflective practice, which is becoming integral to all levels of ECEC throughout Europe (both for in-service and pre-service).

Thus, the recommendations presented below for policy, practice and research reflect the target the issues WP3 identified through CARE. These are areas in which change is most in need and can yield high impact. Our recommendations are not intended to prescribe, but rather, to inspire actors in each of the various European contexts and levels. They can help raise European standards, yet cultural sensitivities and systemic needs will influence implementation within each of the national, regional and local settings, keeping at the forefront, the paramount goal of enhancing child outcomes for *all*.

Recommendations

WP3's overall recommendations are based on the research achieved on professional development in ECEC throughout the CARE Project. They target areas in which change is most in need and can yield high impact, for policy, practice and research.

Recommendations for policy:

- Develop policies that strengthen investment in (financial and time for) provisions for in-service professional development, given its positive effect on child outcomes and quality
- At the highest possible decision-making level, policymakers must mandate actions that help identify the vulnerable and define inclusive education. There is a need for placing inclusiveness high on the priority agenda for ECEC, as a means to tackling social inequality. Policymakers must drive initiatives that in address innovative approaches to ECEC professional development in order to promote social innovation and education and care for *all*, with particular attention to social inequality.
- Forge policy that better supports the creation and uses of innovative practices by fostering greater interaction between policymakers, research communities and ECEC educators and leaders.
- Encourage the (not over-) academisation of ECEC professionals in ways that are relevant to the local systems and needs of learners, emphasising the connection between theoretical knowledge and practical experiences (e.g. practicums, mentorships, etc.) and a broader competence development in qualification.
- Create easy pathways for learners in accessing higher education and qualification.
- Prioritise investments in ongoing research in the links between professional development and child outcomes so that priority areas can be identified for strategic reforms.
- Initiate and/or participate in and strengthen communities of practice (CoP) and communities of innovation (CoI) in order to ensure sustainable innovation in professional development for ECEC practitioners.

Recommendations for practice:

- Emphasise and participate in professional development and formal education that interconnects theory and practice.
- Incorporate training for reflective practice and other innovative approaches both in pre-service and in-service so as to promote an ongoing renewal of practice.
- ECEC institutions must strengthen connections and initiatives with higher education centres in renewing educational provisions.
- Leverage CoP and CoI for sustainable solutions to in-service professional development in the renewal of practice. Engage in CoPs and CoIs as a part of everyday practice in order to co-construct, share and maximise professional learning opportunities and sources of innovation for ECEC. CoPs and CoIs must also be used as a professional development and organisational learning strategy.

- Involve the wider community, policy and parents in the pedagogical practices ascribed for greater inclusiveness.

Recommendations for research:

- Pilot a greater quantity and quality of studies on professional development (specific types and mechanisms), so that culturally-sensitive questions become less important and results can provide enough power and degrees of freedom to carry out a complete moderator analysis to identify the *most important* and *efficient* aspects of professional development for child outcomes. Focus on the lasting effects of professional development over short-, medium-, and long-run child outcomes.
- Prioritise longitudinal research, with the objective of identifying indicators (measurements).
- Identifying who the *vulnerable* are across Europe and how they encounter/experience ECEC is of great priority. There is also a need for large-scale, quantitative and randomised control effect studies that shed light on the connection between professional development and closing the gaps between children from different socio-economic backgrounds.
- There is also a pressing need for further research that addresses how innovation is effectively translated into renewed practices that promotes children's wellbeing and learning.
- Involve practitioners in research so that analysis of their own practices and progressions through in-service professional development may be further understood.

References

- Bove, C., Mantovani, S., Jensen, B., Karwowska-Struczyk, M., & Wysłowska, O. (2016). *CARE – Curriculum quality analysis and impact review of European ECEC: D3.3. Report on “good practice” case studies of professional development in three countries*. Report, 248 p. Retrieved from <http://ecec-care.org/resources/publications/>
- Cviko, A., McKenney, S., & Voogt, J. (2014). Teacher roles in designing technology-rich learning activities for early literacy: A cross-case analysis. *Computers & Education, 72*, 68-79.
- Early, D. M., Maxwell, K. L., Burchinal, M., Alva, S., Bender, R. H., Bryant, D., & Zill, N. (2007). Teachers' education, classroom quality, and young children's academic skills: Results from seven studies of preschool programs. *Child Development, 78*(2), 558-580.
- Ecalte, J., Labat, H., Le Cam, M., Rocher, T., Cros, L., & Magnan, A. (2015). Evidence-based practices to stimulate emergent literacy skills in kindergarten in France: A large-scale study. *Teaching & Teacher Education, 50*, 102-113.
- Eurydice. (2009). *Early childhood education and care in Europe: Tackling social and cultural inequalities*. Retrieved from http://eacea.ec.europa.eu/education/eurydice/documents/thematic_reports/098EN.pdf
- Fukkink, R. G., & Lont, A. (2007). Does training matter? A meta-analysis and review of caregiver training studies. *Early Childhood Research Quarterly, 22*, 294-311.
- Gasteiger, H. (2014). *Professionalization of early childhood educators with a focus on natural learning situations and individual development of mathematical competencies: Results from an evaluation study*. In U. Kortenkamp, B. Brandt, Ch. Benz, G. Krummheuer, S. Ladel & R. Vogel (Eds.), *Early mathematics learning. Selected Papers of the POEM 2012 Conference* (pp. 275-290). New York, N.Y.: Springer.
- Henrichs, L. F., & Leseman, P. P. M. (2014). Early science instruction and academic language development can go hand in hand. The promising effects of a low-intensity teacher-focused intervention. *International Journal of Science Education, 36*(17), 2978-2995.
- Hutchings, J., Martin-Forbes, P., Daley, D., & Williams, M. E. (2013). A randomized controlled trial of the impact of a teacher classroom management program on the classroom behavior of children with and without behavior problems. *Journal of School Psychology, 51*(5), 571-585.
- Howes, C., Burchinal, M., Pianta, R., Bryant, D., Early, D., Clifford, R., & Barbarin, O. (2008). Ready to learn? Children's pre-academic achievement in pre-kindergarten programs. *Early Childhood Research Quarterly, 23*, 27-50.
- Jensen, B., Holm, A., & Bremberg, S. (2013). Effectiveness of a Danish early year preschool program: A randomized trial. *International Journal of Educational Research, 62*, 115-128.
- Jensen, B., & Iannone, R. L. (2016). *CARE – Curriculum quality analysis and impact review of European ECEC: D3.4. Recommendations for common policy across the EU regarding professional development as an element of quality in ECEC and child wellbeing for all*. Report, 34 p. Retrieved from <http://ecec-care.org/resources/publications/>
- Jensen, B., Iannone, R. L., Mantovani, S., Bove, C., Karwowska-Struczyk, M. & Wysłowska, O. (2015). *CARE – Curriculum quality analysis and impact review of European ECEC: D3.1. Comparative review of professional development approaches*. Report, 154 p. Retrieved from http://ecec-care.org/fileadmin/careproject/Publications/reports/report_-_Comparative_review_of_professional_development_approaches.pdf
- Jensen, B., Jensen, P., & Rasmussen, A. W. (2015). Does professional development of preschool teachers improve child socio-emotional outcomes? IZA Discussion Paper No. 8957.

- Jensen, P., & Rasmussen, A. (2016). *CARE – Curriculum quality analysis and impact review of European ECEC: D3.2. Professional development and its impact on children in early childhood education and care: A meta-analysis based on European studies*. Report, 35 p. Retrieved from http://ecec-care.org/fileadmin/careproject/Publications/reports/CARE_WP3_D3_2_Professional_Development_and_its_Impact_on_Children.pdf
- Karwowska-Struczyk, M., Wysłowska, O., & Wichrowska, K. (2016). An innovative approach to the in-service professional development of caregivers in the Łódź Public Crèche Network (Appendix 3, Poland case study). In C. Bove, S. Mantovani, B. Jensen, M. Karwowska-Struczyk, & O. Wysłowska. *CARE – Curriculum quality analysis and impact review of European ECEC: D3.3. Report on “good practice” case studies of professional development in three countries*. Retrieved from <http://ecec-care.org/resources/publications/>
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge: Cambridge University Press.
- Markussen-Brown, J., Juhl, C. B., Piasta, S. B., Bleses, D., Højen, A., & Justice, L. M. (2015). The effects of language and emergent literacy professional development for teachers and children: A meta-analysis. Manuscript, University of Southern Denmark.
- Oberhuemer, P., Schreyer, I., & Neuman, M. J. (2010). *Professionals in early childhood education and care systems: European profiles and perspectives*. Opladen & Farmington Hills, MI: Barbara Budrich Publishers.
- OECD. (2006). *Starting strong II: Early childhood education and care*. Retrieved from <http://www.oecd.org/edu/school/startingstrongiiearlychildhoodeducationandcare.htm#HTO>
- OECD. (2012). *Starting strong III: A quality toolbox for ECEC*. Retrieved from <http://www.oecd.org/edu/school/startingstrongiiiqualitytoolboxforecec.htm>
- OECD. (2015). *Starting strong IV: Monitoring quality in early childhood education and care*. Retrieved from <http://www.oecd.org/publications/starting-strong-iv-9789264233515-en.htm>
- Perels, F., Merget-Kullmann, M., Wende, M., Schmitz, B., & Buchbinder, C. (2009). Improving self-regulated learning of preschool children: Evaluation of training for kindergarten teachers. *British Journal of Educational Psychology*, 79(2), 311-327.
- Powell, D. R., Diamond, K. E., & Cockburn, M. K. (2013). Promising approaches to professional development for early childhood educators. In O. N. Saracho & B. Spodek (Eds), *Handbook of research on the education of young children* (3rd Ed.) (pp. 385-392). New York, N.Y.: Routledge.
- Rönnau-Böse, M., & Fröhlich-Gildhoff, K. (2009). The promotion of resilience: A person-centered perspective of prevention in early childhood institutions. *Person-Centered and Experiential Psychotherapies*, 8(4), 299-318.
- Schachter, R. E. (2015). An analytic study of the professional development research in early childhood education. *Early Education and Development* 26(8), 1057-1085.
- Sheridan, S. M., Edwards, C. P., Marvin, C. A., & Knoche, L. (2009). Professional development in early childhood programs: Process issues and research needs. *Early Education and Development*, 20(3), 377-401.
- Slot, P. L., Leseman, P., Verhagen, J., & Mulder, H. (2014). *Associations between structural quality and process quality in Dutch early childhood education and care*. Utrecht University: Department of Special Education.

- Thomason, A. C., & La Paro, K. M. (2009). Measuring the quality of teacher-child interactions in toddler child care. *Early Education and Development, 20*, 285-304.
- UNESCO. (2004). *The early childhood workforce: Continuing education and professional development. UNESCO Policy Briefs on Early Childhood*. No. 28 / Nov. 2004. Retrieved from http://portal.unesco.org/education/en/file_download.php/8a99fdf5a702a76f70d241e011d49a97Brief+28+English+continuous+education.pdf
- Urban, M., Vandenbroeck, M., Lazzari, A., Peeters, J., & van Laere, K. (2011). *CoRe – Competence requirements in early childhood education and care. A study for the European Commission Directorate-General for Education and Culture*. Report, 63 p. Retrieved from www.infanziaineuropa.eu/lib/d.php?c=npVZ3
- Zaslow, M., Tout, K., Halle, T., Whittaker, J. V., & Lavelle, B. (2010). *Toward the identification of features of effective professional development for early childhood educators. Literature review*. Washington, D.C.: U.S. Department of Education.