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

D3.4: Recommendations for common policy across the EU regarding professional development as an element of quality in ECEC and child wellbeing for all

Final report

Short summary: The overall aim of this report is to highlight priorities in ECEC professional development, based on WP3's findings and develop recommendations regarding high-quality provisions for common EU-policies. Implications and recommendations for policy, practice and research are presented along six priority areas, namely: i) the academisation of professional development; ii) in-service and ongoing professional development; iii) the leveraging of communities of practice and communities of innovation; iv) quality in professional development; v) innovative approaches to professional development; and vi) addressing the vulnerable through professional development.

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Executive summary

This report's discussion and recommendations build on Workpackage 3's (WP3) 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).

The overall aim of the report is 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 in the report have been 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 herein 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, WP3's 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.

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Part I - Introduction

This report's aim is to synthesise and highlight CARE's Workpackage 3 (WP3) key findings (2013-2016) regarding professional development in ECEC, and in light of these, recommend actions forward to various levels of governance, practice and research so that common EU-policies can emerge. Specifically, this report builds on WP3's endeavours, which began as a comparative review of professional development approaches across Europe, also drawing on data from existing longitudinal studies, followed by a meta-analysis of European studies that examine the impact of professional development on children in ECEC, with insights from exemplary, innovative approaches to professional development. Common EU-policies would raise benchmarks and also close the gaps that exist between national ECEC systems while ultimately strengthening the EU's ECEC as a whole, enhancing child outcomes for all.

Throughout WP3's work in CARE, quality has been upheld as professional development that has a positive effect on ECEC through child development and learning. 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). Professional development applies 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 practitioners engage in in-class activities, as well as educational support activities, and interactions with parents and the wider community (Sheridan et al., 2009).

WP3's analyses uphold the premise 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. 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). Particularly effective 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).

It is not the qualification per se that has an impact on child outcomes but the ability of better qualified staff members to create a high-quality pedagogic environment. Key elements of high staff quality are the ways in which staff involve children, stimulate interaction with and between children, and use diverse scaffolding strategies (OECD, 2012, p. 143).

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 (Jensen et al., 2015; Peters & Sharmahd, 2014; Urban et al., 2011).

Over the course of the project, we have encountered exemplary, innovative approaches to professional development in ECEC (see Part II – Data, below), 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 in this report, based on WP3's research findings, reveal foundational values and features, which would enhance professional development and ECEC as a whole. 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.

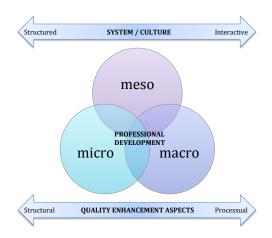


Figure 1. Professional development, contextualised

At this year's EARLI Conference on SIG 5 Learning and Development in Early Childhood, a keynote address from Professor C. E. Snow (2016) emphasised how it can only be through ECEC curriculum together with professional development that child outcomes can improve; thus, professional development is placed at the very core of renewal and quality enhancement within ECEC. Reported as an area in need of development, we have seen in WP3's D3.1 "Comparative review of professional development approaches" (Jensen et al., 2015) that there are differences, as well as disparities with respect to the provision and undertaking of professional development, for various reasons across Europe. A recent Eurydice (2014) reports the same findings, with a slightly more encouraging observation that professional development is on the rise, yet gaps remain. 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.

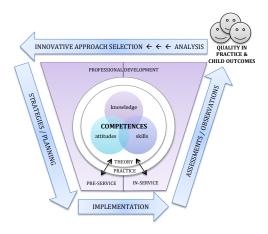


Figure 2. Professional development and its impact

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 & Wichrowsha, 2016) so that appropriate interventions yielding better child outcomes may be chosen.

This synthesis of WP3's findings on professional development in ECEC 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 in this report (and others from WP3's D3.3) have been 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 (Figure 1), we acknowledge that the recommendations herein can be applied to ECEC settings across Europe, though actors and methods may vary. The strive is to strengthen European ECEC without suggesting radical changes that disregard historical legacies. In light of this, WP3's findings and recommendations will address implications for policy, practice and research for each of the six policy priorities identified. Since ECEC's 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, continued professional competence development is crucial.

Part II - Data

In the following section, a more detailed description of the data, which forms the basis for this integrative report and the recommendations, is outlined.

Comparative review of professional development approaches (D3.1)

The data collected for the analysis were developed through country reports from 10 participating European countries. These country reports were based on 13 questions that were posed to CARE's partners (May-June, 2014) through a questionnaire (see Appendix A in Jensen et al., 2015, p. 156-157). Other data sources were key national policy documents as well as national research or other reports on professional development systems which were incorporated in the analyses of D3.1.

The report defines professional development as activities that accomplish *two primary objectives*: 1) advancing the knowledge, skills and dispositions of ECEC professionals through pre-service education and, thereby, improve practices in ECEC, leading to higher quality, improved child wellbeing, and better child outcomes; 2) promoting a culture of ongoing professional growth of individual professionals and of the ECEC systems in which they work, an aspect sometimes referred to as continuous professional development, which includes a cyclic dynamism (with recurrent cycles of planning, observing, evaluating, reflecting, and changing) that moves practice towards higher quality.

The analyses of professional development in Europe were undertaken by addressing three 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 the 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?

Beyond this, D3.1 addressed the overarching question: How can the findings contribute to future policy, practice and research development and thereby contribute to the field by highlighting which challenges European ECEC systems face in today's societies, and how can these challenges can be met through an improved professional development ECEC system?

Six themes were highlighted from the data analysis: pre-service professional development, ECEC educators' qualification requirements, standards and resources; characteristics of in-service professional development for ECEC educators; ECEC educators' role, responsibility and quality concepts; policy developments and reforms; quality assurance regulation, monitoring and evaluation; and, innovative approaches. In addition, the report presented three additional insights from the comparative analysis, namely: reflection and critical reflection in practice; ECEC and the vulnerable; and, innovative approaches to professional development.

Professional development and its impact on children in ECEC: A meta-analysis based on European studies (D3.2)

The data and methods used in the meta-analysis are described in detail in WP3's D3.2 report (Jensen & Rasmussen, 2016, p. 9-14). The aim of the study was to review existing evidence on professional development and child outcomes, specifically focusing on European research of professional development in formal preschool centres. A systematic, quantitative analysis was undertaken regarding the effects of professional development on child outcomes.

Findings were of particular relevance to CARE, especially given the dearth of knowledge addressing *general* evidence on European professional development experiences, despite having one-off studies investigating specific professional development in Europe. In summary, the review and meta-analysis focused on the following research questions:

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

The meta-analysis initially included nine European studies that passed rather strict inclusion criteria. All included studies investigated professional development in formal preschools (i.e. they only focused on changes within preschools) and are based on data from Denmark, France, Germany, the Netherlands and Wales. The studies have different focal points despite all being concerned with child outcomes: literacy, reading or language, mathematics, or behaviour and self-regulation. Thus, the review builds on a lot of variation in the outcomes investigated.

Despite the small number of studies included and the wide variety of outcomes, the results showed a significantly positive effect of professional development on child outcomes. The research also reported an overall effect size of 0.35 (with a 95% confidence interval from 0.20 to 0.51) (ibid., p. 3).

"Good practice" case studies of professional development in three countries (D3.3)

The data and methods for conducting D3.3 were based on: 1) a literature review of innovative approaches to professional development; and 2) case studies from three European countries: Denmark, Italy and Poland. Analyses of the three cases ensued, followed by a discussion of exemplary innovative approaches to professional development and practice – see the data and findings in more detail in WP3's D3.3 report (Bove et al., 2016, p. 10-11 and 24-26).

The case studies involved data on innovative approaches, especially of in-service professional development in the respective countries. Data collected in each case included both existing and new data. Case studies were conducted with the aim of exploring new, effective approaches to professional development whose purpose is to enhance education and improve workforce training strategies for ECEC practitioners. In general, the case studies were selected by 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.

Ultimately, three case studies were chosen: 1) the VIDA programme from Denmark – knowledge-based efforts for socially disadvantaged children in daycare (Jensen et al., 2016); 2) city-laboratories using the Reggio Emilia model of diffused pedagogy in Italy and the Milan example of fostering innovation in a big city (Giudici & Castagnetti, 2016; Mantovani et al., 2016); and 3) innovative approaches to in-service professional development in the Łódź public crèche network, in Poland (Karwowska-Struczyk, Wyslowska & Wichrowsha, 2016).

The three cases have many points in common and some differences: the Danish case is an example of how to create innovation in ECEC institutions through organisation-wide professional development, combining top-down and bottom-up approaches. It has a specific focus on socially disadvantaged children and spans from the municipal to the national level. The Italian study includes two examples of participatory ECEC city-laboratories, in which innovation spreads out from being local to the involvement of other cities and with different partners (Reggio Emilia), and from parts of the city to the entire city of Milan. The Polish case addresses a local context, a network of ECEC institutions, and shows the beginning of influence on the national level. ECEC contexts and phases are different from case to case: Denmark and Italy are updating existing and extensive professional development practices into a consolidated system, finding new and sustainable practices. Poland is at an earlier phase of creating and implementing new professional development practices. The three cases are also different in terms of scale, systems, numbers: the Polish case referred to a network of 30 institutions for children aged under the age of three; the programme presented by Denmark involved 127 institutions for children aged three to six; the Reggio case involved 84 ECEC institutions for children aged under the age of six, out of which 66 are directly run by the municipality; the Milan case involved around 330 ECEC settings directly run by the municipality and focused on the 54 ECEC services involved in a particular project (Bove et al., 2016, p. 9).

Part III - Policy priorities and recommendations

i. Policy priority: Academisation of professional development

Professional development applies to a full range of activities that focus on building the knowledge base, skill sets and attitudinal perspectives of ECEC practitioners and professionals, strengthening their engagement in child care, preschool education, kindergarten to primary school teaching, parent education and educational support services (Harvard Family Research Project, 2004, cited in Sheridan et al., 2009). It includes pre-service training at the vocational (academic and non-academic), bachelor and master levels (academic), and ongoing professional development for practicing ECEC professionals, such as through trainings, conferences, research interventions and lifelong learning (academic and non-academic) initiatives.

In WP3's D3.1 (Jensen et al., 2015), the comparative review of professional development systems and processes across Europe revealed a perceivable increase in the academisation of staff – both in preservice and in-service accreditation and certification¹. As a whole, academic qualification is on the rise in Europe, with some exceptions (ibid., pp. 132-135); in some countries, qualification is a requirement for entry into ECEC as an educator, and in other systems, qualification remains optional, not least as a route to employment security and higher pay (Jensen et al., 2015). Increased academisation is also partly influenced by the Bologna process' qualification framework of the European higher education area and the introduction of ECTS accreditation for competence formation. Embedded in the Bologna Accords are the promotion of European cooperation, as well as university and staff mobility potential. Providing a graphical snapshot as to the status of academic qualification requirements, Eurydice (2014, pp. 100-101, Figures E2a and E2b) mapped out the unequal distribution of academisation, Figures 3 and 4 below, and in Jensen et al. (2015) it was revealed that countries not only differ in terms of requirement, but also in terms of academic education arrangements, quality and praxis.

Figure 3. Minimum required level and minimum length of initial education for staff working with younger children in centre-based ECEC settings, by staff category, 2012/13

Figure 4. Minimum required level and minimum length of initial qualification for staff working with older children in centre-based ECEC settings, by staff category, 2012/13



¹ In this report, we use the terms *educated* and *non-educated* to distinguish between ECEC professionals who are academically educated and have earned a qualification, or not.

The main question in academic formation, and most especially in pre-service education, concerns the provision of practical experience to enhance theoretical knowledge and how systems can best coordinate these two aspects in a pedagogical plan that will prepare a graduate for today's changing ECEC daycares and classrooms. More specifically, the aim is to train professionals to transform knowledge into evidence-based practice. The range between requirements is quite large. For example, shorter internships in pre-service qualification has prompted serious criticism in Portugal (Formosinho & Formosinho, 2008). In Italy for instance, "an increasing academisation of pre-service professional development is taking place [...] largely due to an emphasis on discipline in the new pre-service curriculum for preschool and primary teachers, growing concerns about subsequent academic success, and themes such as the early second language learning" (Jensen et al., 2015, pp. 83-84). As recent as 5 March 2015, legislative proposals are being debated that would require educators in Italian nidi to earn a bachelor's degree (ibid., p. 80) and in Finland, the bachelor's education "makes one eligible to study toward a two-year (120 credit) masters in education – a path which is becoming more and more common" (ibid., p. 52). In formal education across Europe however, the focus is on integrating practice and theory through, for example, internships that include observations, supervised teaching practice, planning and assessment, reflective practice, pedagogies for the vulnerable and mentorships. Debates surround the coordination and investment in the practical periods, all of which must be long enough in duration to be meaningful; these in fact, vary greatly throughout Europe.

In addition, there is evidence that formally qualified staff in ECEC versus non-qualified staff (Datta Gupta & Simonsen, 2015), or a greater distribution of formally educated versus non-educated, leads to improved child outcomes (Bauchmüller, Gørtz & Rasmussen, 2014), and, there are recent reforms across Europe that call for increasing the number of staff with a university degree (Jensen et al., 2015, p. 137). "Most research claims that better educated preschool teachers with specialised ECEC training are more effective [...] and they tend to provide children with more stimulating, warm and supportive interactions leading to longer term positive impacts (OECD, 2001)" (OECD, 2012, p. 36). These are some of the arguments that support the academisation of staff.

However, critics of academisation raise concerns of the over-qualification of staff working with children aged three to six, and the under-qualification of staff working with children under the age of three. In Italy, for example, a recent bill (2656/2014) presented to the *Camera* ('lower house') is currently being debated in the *Senato* ('upper house') and would make it compulsory, at a national level, for one to complete a three-year degree in Educational Sciences in order to qualify as an educator or a five-year degree in Educational Science (3 years, bachelor's level + 2 years, master's level) to qualify as a *pedagogista* (pedagogical coordinator). There clearly exists an express fear that an increase in qualification might lead to demands for increases in compensation such as with salary and benefits. Yet, the debate surrounding practice versus theory in any given formal education remains dominant.

Throughout CARE, partners have described vast differences across European systems, underpinned by socio-economic influences, which may also be a result of what education systems place priority on and value. Overall, consensus is growing at the policy level in many countries that ECEC professionals should hold a bachelor's degree or equivalent, including specific qualifications for ECEC, but agreement on whether this is the most (costs-) effective strategy in strengthening ECEC quality and impact is unequal. As research shows (e.g. Bauchmüller, Gørtz & Rasmussen, 2014 and Melhuish et al., 2015), there are extensive differences between ECEC settings in arrangements of and outcomes from formally educated and non-educated staff in terms of quality, and thereby child outcomes (see also Datta Gupta & Simonsen, 2015). In general, however, there is still an important

need for empirical evidence that clearly demonstrates a positive link between academisation, quality improvement, and impact on child outcomes.

Recommendations for policy:

- Encourage the 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.
- Establish norms for the distribution of educated and non-educated ECEC practitioners in ECEC centres that would lead to strengthened child outcomes, based on research.
- Support the balance between theory and practice, especially in pre-service, formal ECEC qualification through stronger education policy.
- Increase resource availability for practitioners, particularly in ongoing, in-service professional development.

Recommendations for practice:

- Emphasise and participate in professional development and formal education that interconnects theory and practice.
- Be an active participant in the debates surrounding the academisation of professional competence development by informing decision makers of the changing needs of today's ECEC settings.
- ECEC institutions must strengthen connections and initiatives with higher education centres in renewing educational provisions.
- Practitioners can become active participants in the practicum parts of formal education, providing leadership, mentorship and coaching to newcomers in the profession.

Recommendations for research:

- Focus research on the *optimal* arrangements and distribution (norms) of educated versus non-educated staff in relation to child outcomes (both for pre-service and in-service professional development) through large-scale and longitudinal effects studies.
- Establish empirical evidence that clearly demonstrates a positive link between academisation, quality improvement, and impact on child outcomes.
- Contribute to the enhancement of professional development in general, but also qualification and formal education, by informing pedagogies on the effective methods and elements for competence formation.

ii. Policy priority: In-service professional development

In a highly complex society and with a range of demands and challenges in the ECEC system, there is a need for the better provision and types of professional development that enable professionals to meet such demands and challenges. Professionals in ECEC systems can no longer afford to merely acquire specific specialised knowledge and skills – they have to develop competences that allow them to apply knowledge and skills in a renewal of practice which is then constantly adapted to changing situations and the specific children in daycare settings, and their families. From the Netherlands, we found for instance, research indicating that in-service professional development strategies are stronger predictors of ECEC quality than pre-service education (Akgündüz et al., 2013; Leseman & Slot, 2013; Slot et al., 2014).

As we have seen in recent studies in CARE (e.g. D2.1 "Overview of European ECEC curricula and curriculum template" by Silva, Ereky-Stevens & Aricescu, 2015), there is a growing need for an academically educated ECEC workforce (in some countries, more than others) and staff who develop competences necessary for the implementation of curricula in their countries. CARE studies showed that pre-service qualifications are not enough to enable educators to see beyond the pre-descriptions of curricula, early learning goals, guidelines and programmes. We also identified the same argument from UNESCO:

Continuing education and professional development are essential complements to basic education: they need to be seen as part of a whole system that enables workers to improve their practice, deepen their understanding and explore new perspectives. There are many forms that such education and development can take, and there is a case for saying that all should be available; but in particular the concept of the worker as co-constructing learner and researcher opens up new, complex and exciting possibilities. However, to be accessible and widely used, certain conditions need to be in place including resources, motivation and methods. Lifelong learning comes neither easy nor cheap (2004, p. 2).

There are two central questions regarding in-service professional development that need to be addressed by policy, practice and research. If in-service professional development has such a positive impact on practice, quality and child outcomes, then why is this feature of ECEC largely still unorganised, or self-organised? Also, given the evidence that in-service professional development is more effective than pre-service (Early et al., 2007), why is there so much attention on the academisation and distribution of educated versus non-educated staff in ECEC, while support and resources (e.g. other forms of professional development) for in-service remain vastly unequal across Europe (see Figures E4a and E4b Eurydice, 2014, p. 105)?

In WP3's D3.1 (Jensen et al., 2015), the comparative review of professionals' systems in CARE's participating countries showed that in contrast to pre-service qualification (vocational and academic), there is an enormous range in mandates and offerings across Europe regarding in-service professional development (Jensen et al., 2015, p. 134). Two main trends can be identified. The first is one that puts the individual at the centre, making the ECEC educator responsible for seeking out relevant ECEC-enhancing training, as well as locating resources including time and finances. The other trend is that local or national authorities mandate and provide support for ongoing training.

Second there are important differences in terms of resources and regulation concerning the quality of and in-service training. Overall, the same two directions with respect to in-service training were identified. Namely, some systems could be characterised as providing professional development with

substantial government-mandated support, while others, which is more common, poorly fund training and development, leaving these activities to be self-organised and unevenly assessed.

In WP3's D3.2, European evidence was reviewed regarding the impact that in-service professional development of pre-school educators has on child outcomes. The range of relevant European studies included in the meta-analysis was quite small, but despite this, results showed a significantly positive effect of professional development on child outcomes. An overall effect size of 0.35 (with a 95% confidence interval from 0.20 to 0.51) was found (see Jensen & Rasmussen, 2016). As expressed by Jensen and Rasmussen:

The results from the current meta-analysis point in the direction that professional development [PD] has a clear positive impact on child outcomes. The exact mechanism(s) need to be further explored, but it can definitely be concluded that a greater focus on PD will be beneficial for children across Europe. 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 (ibid., p. 4).

Emphasis on this point is expressed in WP3's D3.1, where a call is made for comparative European studies that include the mechanism, content, structural and processual features as aspects of professionals development that lead to effect (Jensen et al., 2015). D3.1's findings also strengthened the argument put forward by Eurydice (2009), that it is worth pursuing Continuing Professional Development (CPD, or in-service professional development) in our pursuits to raising the quality of future ECEC. In 2009, CPD was optional for ECEC staff working with younger children in more than half of European countries. That pattern changed by 2014, where in most countries, CPD is approached as a professional duty, as is the case for ECEC professionals working with older children in ECEC (ibid., p. 104):

In Denmark, Ireland, Greece, Cyprus, Poland, Sweden and Norway, CPD is not obligatory for educational and care staff. However, in Greece and Poland, CPD is clearly linked to the career progression of teachers working with older children.

In Luxembourg, Slovenia and the United Kingdom (England and Scotland), CPD is a professional duty even for assistants (ibid.).

Findings from WP3's D3.2 neglect effects of professional development on ECEC educators' skills, beliefs, attitudes and work conditions. Yet, the meta-review contributes to a strengthened argument for recommending a greater awareness of and concrete initiatives to organising and making in-service professional development compulsory at all levels.

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.
- Raise standards for in-service professional development by informing decisions through international best practices.
- Support more coordinated and targeted efforts for in-service professional development so that adhoc arrangements may obtain system-wide support, while keeping efforts flexible enough to meet the demands of changing ECEC settings.

Recommendations for practice:

- Identify key practitioners/leaders in ECEC to bring professional development needs and issues to the attention of decision makers and lead in-service provisions.
- Take a pro-active approach to in-service professional development whether a duty or optional given the positive effects on child outcomes.
- Leverage communities of practice and communities of innovation (see policy priority iii) for sustainable solutions to in-service professional development in the renewal of practice.

Recommendations for research:

- Focus research on the effects of professional development on ECEC professionals, as there is still a wide gap in knowledge in this area.
- Focus research that examines the specific types (and mechanisms) of professional development and their specific effects on child outcomes so that key activities may be identified for future investment.
- Involve practitioners in research so that analyses of their own practices and progressions through in-service professional development may be further understood.

iii. Policy priority: Communities of practice and communities of innovation

A community of practice (CoP) is defined as groups of individuals who come together in order to actively and practically engage in a specific domain, a shared common professional interest, for a shorter or longer period of time. The motivation of participants in CoPs includes a desire to improve (master) practice by sharing knowledge and insights between newcomers and more established professionals – experts – by learning through participation (Lave & Wenger, 1991; Wenger, 1998; Wenger, McDermott & Snyder, 2002). Multiple CoPs can co-exist within the same group of professionals and individuals can simultaneously belong to multiple CoPs. New CoPs can also emerge; for instance, in conjunction with innovation-centred initiatives/interventions and communities of innovation (CoIs). Short-term and micro-level learning encounters in CoPs could encompass training or coaching for example, whereas meso-level CoPs draw from inter-institutional exchanges and learning, extending to national and international arenas in macro-level CoPs, be they face-to-face or virtual. And, CoPs can encompass members from all levels of ECEC who exchange perspectives on a given practice or knowledge area; i.e. not only ECEC managers can be involved, nor might CoPs form along discrete, distinguishable professional lines. The goal of CoPs is to close the research-practice gap and create sustainable multi-stakeholder networks in ECEC in order to ensure a continual renewal and cultivation of practice. In this light, research is not only something consumed by CoPs, but also produced within CoPs – the link between researchers and practitioners is indeed strengthened by CoPs, where practitioners are supported in professionalising their practice.

Despite many overlapping elements, CoIs differ, yet complement CoPs, in the sense that the learning content in CoIs is more evolving and dynamic (compared to a more stable base of knowledge in CoPs), and, CoIs generate innovations (e.g. new practices) whereas learning in CoPs is referred to as learning how to master existing practice (this conceptualisation is further explored in the working paper: Jensen & Aakjær, 2016). In line with Engeström (1999) and drawing from social learning and innovation theory, West (2009) contends that the necessity of seeing shared innovation efforts across communities is a unique social structure, which he coins as CoIs. As a whole, CoIs encompass social learning, the co-construction of meaning, shared practice and co-participation in creativity (Jensen & Aakjær, 2016). Moreover, the use of technology can facilitate – today – the creation and sustainability of CoIs. Platforms, forums for online communication, etc., present opportunities for increased experiences of sharing, the implementation of new ideas, practices and strategies that renew the existing.

From WP3's D3.1 (Jensen et al., 2015), the narrative review of ECEC professional development identified CoPs as one of the three most common forms of in-service professional development, promoting active learning (Ellström, 2010). In the comparative review of ECEC across Europe (ibid.), findings highlighted the importance of CoPs and CoIs in the implementation of new structural and processual changes in ECEC professional practices. For example, a positive link between CoPs and in-service professional development has been evidenced in two recent Danish programmes (ibid., pp. 18-19): the ASP-project (Jensen, Holm & Bremberg, 2013) and the VIDA approach to professional development (Jensen, 2014; Jensen, Jensen & Rasmussen, 2015). Innovative practice in in-service training in Portugal was reported as collaborative, through consultation/supervision and in CoPs that support interconnectedness and reflectiveness (Jensen et al., 2015, p. 128). In Italy, CoPs are used to fill in resource gaps, for example, where different forms of evaluation and monitoring are needed (e.g. in Tuscany and Emilia Romagna) (ibid., p. 85). In England, various professional associations perform trainings through workshops and meetings and offer online courses and webinars; essentially responding to and cultivating lifelong learning through non-formal and informal

learning. Associations also serve an employee-rights function for ECEC staff and there is often no membership fee, resulting in high participation, nation-wide (ibid., pp. 41-50). In Finland, the management of research, knowledge dissemination and pre-service practicums are coordinated between ECEC centres, multiple agencies, universities, municipalities and the wider sectors of ECEC, whereas ECEC staff is mentioned as the "key element in maintaining high quality ECEC. The goal is to establish working communities which are competent and open to changes and where individual work is made transparent for different collaborators and subjected to evaluation" (Jyväskylä, 2014, p. 23 quoted in Jensen et al., 2015, p. 56), emphasising again the central role of CoPs. Also, research related to ECEC there is promulgated in cooperation with the Danish Institute for Evaluation in Education as well as Norway and Sweden's national authorities through a database of Scandinavian Research (ibid., p. 108), demonstrating how CoP and CoI are increasingly gaining momentum.

From the wider European ECEC context, CoPs are currently being employed as "a form of ongoing professional development that is becoming more widely known in the field (Helm, 2007; Wesley & Buysse, 2006) [...] used [...] in a variety of settings, including schools and child care programs (Bray, Lee, Smith & Yorks, 2000)" (Sheridan, 2009, p. 384). As Hayes et al. (2013) reported, CoPs provide a means to inform practice, promote reflection on practice and guide implementation needs (Eurofound, 2014, p. 51). Case study examinations from CoRe (Competence Requirements in ECEC), for example, "have opened windows into interesting practices that show [...] diverse possible pathways for the education and professional development of reflective practitioners", headlining CoPs as one of them (Urban et al., 2011, p. 39). And, from the European Commission, a review indicated that CoPs can be effective in providing high quality ECEC, culturally relevant practices, a greater inclusion of family and communities in children's development, and in promoting social education and social inclusion for all, with a focus on addressing children from disadvantaged backgrounds and the vulnerable (Bennett, 2012).

As a whole, CoPs and CoIs are both an excellent source of professionalisation, sustainable workforce development and support for actual and future ECEC professionals (Jensen et al., 2015; Mantovani et al., 2016, p. 42). Developing face-to-face and on-line professional development communities draws from "democratic participatory approaches in professional development work that would also nurture critical thinking, dialogue, and reflection on what is quality practice" (Bennett, 2012, p. 54). On a more macro-level, CoPs and CoIs unburden ECEC systems in structural ways – by curtailing the need for one-day courses on implementation for instance – and also elevate the responsibility of innovation in ECEC from the micro, individual level, to the meso, shared, community level. However, even where research has identified these approaches as effective (e.g. Giudici et al., 2016; Jensen et al., 2015; Jensen & Rasmussen, 2016), no evidence is provided on the effectiveness of them in relation to one other (Jensen et al., 2016, p. 18) and only a few studies examine CoPs and CoIs in relation to impact on child outcomes.

Recommendations for policy:

- Promote and engage in CoPs as a source of knowledge dissemination and ongoing learning in the ECEC sector, creating closer ties with ECEC practitioners and the wider community.
- Promote both face-to-face as well as virtual CoPs and CoIs, also across national borders in order to bridge knowledge gaps and deepen connections, also between levels of governance and practice.
- Leverage CoPs in order to unburden structural changes to ECEC and create stronger linkages between policymakers, practitioners and research communities.

Recommendations for practice:

- Engage in CoPs and CoIs as a part of everyday practice in order to maximise professional learning opportunities and sources of innovation to practice in ECEC.
- Support the participation of *all* in CoPs and CoIs (e.g. ECEC settings staff, leaders, municipal representatives, etc.) so that solutions to renewed practice are co-constructed and shared by *all*.
- Encourage ECEC settings in providing the resources and space for the creation of and participation in CoPs and CoIs, as a professional development and organisational learning strategy.

Recommendations for research:

- Produce research on European CoPs and CoIs, with a focus on the extent to which they are used and influence the effectiveness of practice in ECEC and child outcomes.
- Research, with the objective of identifying indicators (measurements), as to how CoPs and CoIs impact learning (e.g. on competence development).

iv. Policy priority: Quality in professional development

Quality in ECEC professional development is often defined by two types of quality: 1) structural characteristics such as teacher qualifications (e.g. Howes et al., 2008; Slot et al., 2014; Thomason & La Paro, 2009); and 2) process characteristics, such as day-to-day experiences in ECEC settings, interactions with peers and materials (Slot et al., 2014, p. 48). The evidence for strong and consistent relationships between structural and process quality is far from conclusive (Slot et al., 2015).

In earlier WP3 reports we have addressed that, as challenges to ECEC staff increase, we are witnessing a greater emphasis on the connections between educators' qualifications in improving quality in ECEC and child outcomes. Especially in meeting new high-quality standards, nationally and at a local level, the need for policy, practice and research development in this area is at the forefront. The need for formally educated staff to implement learning goals and curricula, as well as quality ECEC in practice, is a concern across Europe.

The process and expected relationship between professional development and child outcomes (Figure 2 in Part I of this report) are understood as mediated by assessments/observations, reflective practices, planning strategies for better teaching and practicing, and implementation. It has been argued and evidenced that the quality of professional development is enhanced when professionals bring theoretical knowledge into practice in a reflective and innovative manner – and by working in CoPs and CoIs (see Policy priority iii). The OECD (2015) gives further evidence and highlights the importance of ongoing evaluation linked to professional development, leading to improved quality in professional development. In this context, several studies (ibid., p. 54) indicate that "staff self-evaluation can be an effective tool for professional development as it enhances practitioners' reflectivity and collegial work" (Sheridan, 2001), for example. As a whole, evaluation and monitoring can be used in the process of quality enhancement, as:

It is widely acknowledged that the quality of ECEC staff and their pedagogical activities, interactions and knowledge have a major impact on children's well-being and development. Effective monitoring of staff is central to the continuous improvement of ECEC services, which indicates the importance of linking staff monitoring to professional development (OECD, 2015, p. 124).

These links between monitoring and professional development are, as such, directly related to child outcomes as well as staff outcomes: "When monitoring is linked to professional development, it can have beneficial outcomes both for children and for staff" (ibid.). And, "one of the typical consequences of monitoring is that it prompts settings and staff to address shortcomings, which is usually achieved through professional development training" (ibid., p. 14).

In WP3's D3.1 (Jensen et al., 2015) the comparative review of professionals' systems in CARE's participating countries revealed that there are only legislated, national quality standards for the professional development of ECEC staff in three countries. England, Norway and Portugal are the three countries that have clearly defined quality standards in national legislation such as in the Early Years Foundational Stage Statutory Framework (England), the Kindergarten Act (Norway) and the Framework Law of Pre-School Education and the Teachers Career Statute (Portugal).

Further, D3.1 identified three system models for quality assurance regulation, monitoring and evaluation of professional development in ECEC. The first is of a highly structured, nationally organised system, conducting regular evaluations by non-governmental representatives who then share results with the public (e.g. England). The second model depicts systems where there are no systematised regulations or evaluation and where self-organised evaluations are used in order to

examine practices, based on national curriculum, per municipality, region or ECEC unit. In the third model, countries have a more interactive regulation model (e.g. Italy). Such interactive models involve a plurality of stakeholders and aim at analysing, discussing and improving educational practice in concert, involving ECEC practitioners, leaders, municipalities, and parents, among others. Also, a plurality of assessment tools helps to enrich the evaluative process, such as through documentation (of practice, of observation, of children's responsiveness, etc.). Therefore, evaluation is not just a process of observation emanating from external stakeholders taking a look into ECEC; but, it also involves an outward and interactive look. The idea of evaluation and assessment being used as feedback mechanisms can result in an ongoing process of quality enhancement in ECEC, open and responsive to changes. Periodic reviews can also become catalysts for incremental improvements and innovation.

In WP3's D3.3's report on *good practices* (Bove et al., 2016), examples of interactive and dynamic evaluation practices of ECEC professional development quality initiatives were presented, as well as the benefits of formative assessment. Overall, evaluations can act as a stimulus "to enrich the possibility for discussion and dialogue" (ibid., p. 59). The evaluations described were all conducted at local ECEC levels for pre-service and in-service professional development and highlight how quality in ECEC yields stronger child outcomes but is largely dependent on professional development.

As a whole, WP3's findings demonstrate a tendency for quality to be defined on the micro- or meso-levels of ECEC systems, whereby recognition and leadership on quality at the macro level (systemically) is lacking. On the one hand, we can expect that quality is self-governed where there is no national intervention. On the other hand, this does not necessarily result in every child gaining access to high-quality ECEC throughout any given system. The findings further highlight that the competence of practitioners to engage in interactive modes of quality assessment is an important part of pre-service education. However, if responsibility is too diffused and localised, this spells the potential for unequal ECEC provisions and perhaps even conflicting developments of what *quality* in ECEC professional development is and should be, from one ECEC setting to another.

Recommendations for policy:

- Commission research that will help elucidate on the aspects of and promote quality in professional development in ECEC.
- Develop and use a monitoring and quality assessment systems for professional development that can inform policy *as well as* practitioners and the public.
- Rather than delegate responsibility for monitoring and quality assessment, engage in a
 participatory process with the various levels of governance and practice so that the process and
 results are equally shared and used to inform future strategies.

Recommendations for practice:

- Involve several stakeholders in the co-creation of a definition and way forward for quality in ECEC professional development.
- Use continuous monitoring as an individual and organisational learning strategy that supports professional development.
- Promote the ongoing engagement in CoPs and CoIs (see Policy priority iii) that supports ECEC staff to stay current on research and engage in dialogue about culturally responsive quality developments.

Recommendations for research:

- Undertake research which will help clarify what the most effective models for professional development are, including indicators.
- Engage ECEC staff directly in research, through immersive, action research for example.
- Use evidence to further inform practice and policy by actively fostering closer links with decision-makers.

v. Policy priority: Innovative approaches in professional development

A traditional understanding in the literature on innovation (e.g. Fagerberg, 2004) is that it is strongly linked to economic development, which occurs through new ideas, inventions and products. In the field of ECEC, the emphasis of innovation is more closely linked to new processes and practices in relation to a renewal of social services. A useful working definition for the purposes of WP3's work has been one tied to social innovation: "social innovation refers to the processes of collective idea generation, selection and implementation by people who participate collaboratively to meet social challenges" (Dawson & Daniel, 2010, p. 16). The idea of professional development in an innovative perspective concerns the extent to which staff are able or can be enabled to provide higher quality ECEC, as compared to previous offerings.

As mentioned earlier, the keynote address (Snow, 2016) at this year's *EARLI Conference on SIG 5 Learning and Development in Early Childhood*, emphasised how only through curriculum *together with* professional development can child outcomes improve, emphasising professional development's central role in the renewal of and quality enhancement within ECEC. And that is where the innovative approaches WP3 examined, take departure.

Highlights from WP3's D3.1 (Jensen et al., 2015) point to more significance on innovative approaches in ECEC in order to meet societal challenges, placing new demands on the ECEC systems' readiness for change. D3.1 explores and provides examples of how innovative approaches to professional development in ECEC are perceived and implemented in Europe as ways of renewing practices, in striving towards higher-quality ECEC goals and child outcomes, also for the most vulnerable and socially disadvantaged children. The analyses led to insights of how innovative approaches to professional development in ECEC can be differentiated on three levels: 1) a macrolevel (i.e. form, content, delivery modes, e.g. in the reforms of pre-service education); 2) an interorganisational or meso-level, also through inter-sectorial innovative approaches (e.g. staff working together with research, universities, municipal sectors), consisting of new and creative ways of collaborating for change (e.g. living conditions and educational opportunities for all children and young people starting in ECEC); and 3) a micro-level or individual and organisational learning approach (e.g. in-service professional development programmes focusing on innovative competences, through short- or long-term courses and training, also through staff working in CoP and CoI).

Most of CARE's country participants have emphasised that they do not have a national definition of innovative approaches to professional development and only few studies have been noted as contributing to the evaluation of professional development programmes' effectiveness. For example, we can gain some insight into the evidence of innovation through the Danish cases of in-service professional development programmes and outcomes for children aged three to six (Jensen et al., 2013; Jensen et al., 2015; Jensen et al., 2016). However even if there is no definition of innovation at a national level (macro-level) the overall observation gathered from the individual country analyses in D3.1 (Jensen et al., 2015) shows that there is a growing awareness of the importance of strengthening ECEC pre-service and in-service professional development, especially in terms of collaboration between research and practice (meso-level) and thereby training educators' innovative competence development. For instance in Greece, innovative approaches to professional development have been identified (ibid.) as those which consider in-service programmes as part of a continuum of professional development involving ECEC staff via action learning and action research. This kind of professional development engages educators in the planning and implementation of programmes, and receives official recognition from national ministries and local authorities.

Another characteristic of innovative approaches to professional development relates to in-service

education and training, when it uses new methods and techniques in adult education, in order to contribute to changing/transforming educators' beliefs, principles and practices: by introducing new teaching methodologies; promoting the use of new educational materials/means; combining theory with practice; while considering the particular trainee's characteristics, needs and interests. Altogether, innovative approaches strengthen lifelong learning processes for ECEC professionals, by inducing them through innovative approaches and collaborating with them in in-service activities.

Moreover, one of the most poignant characteristics of innovation in professional development concerns reflection in practice. Several examples of the use and introduction of reflection have been shared in WP3's publications. Notably, through reflective practice, the link between research and practice is established and developing practice-based educational research becomes enriched.

As argued in D3.1 (Jensen et al., 2015), ECEC staff can no longer be content with acquiring specific knowledge and skills related to ECEC contexts. The demands and new challenges in a postmodern society require professionals with competences that allow them to apply knowledge and skills towards an ongoing renewal of practice based on the situations in which they find themselves as well as children's needs. Thus, reflective practice offers practitioners – who are competent in using this approach – the means through which observations can be made, areas in need of improvement can be identified and new courses of action can be selected. Reflection in practice becomes inseparable from innovative approaches. There are differences in the ways in which reflection is implemented and emphasised in the various national contexts, but, nevertheless, it is becoming integral to all aspects of ECEC in every one of CARE's participating countries (e.g. pre-service qualification and pedagogy, quality assurance, in-service professional development, etc.).

However, there are obstacles to reflection in practice which make it difficult to implement. A lot of time is required, with time not easily afforded in under-resourced systems. Nevertheless, making reflection in practice a priority in pre-service and in-service professional development can lead to sustained, continuously improved quality and positive child outcomes (ibid.). And, as presented by CARE's Greek partners (ibid., p. 71), critical reflection on practices is central to inspiring several new programmes and changes in ECEC, despite budget cuts at the national level.

Innovative approaches differ a lot throughout Europe: from new, emerging ways of considering ECEC systems, both politically (macro-level) and among service providers (meso-level), such as in the Netherlands (Leseman & Slot, 2013), to countries such as Italy, where there has been a long tradition for innovative approaches to ECEC on all three levels (micro, meso and macro). To be innovative in the Italian ECEC system, practices should involve whole areas or networks, including parents and communities, and should link the acquisition of educational skills with an awareness of the cultural, social and political missions of ECEC. There, innovation includes change that is sustainable, systemic (not episodic or realised in single centres), and which exploits the possibilities offered by technology.

Additionally, the meta-review conducted and reported in D3.2 presented two examples of innovative approaches to professional development, including randomised controlled studies, which were found to have a significant impact on child outcomes (Jensen & Rasmussen, 2016). However, there still exists a gap in knowledge regarding the processes and mechanisms of innovative approaches that are positively linked to desired ECEC outcomes.

Recommendations for policy:

• Take the initiative in addressing innovative approaches to ECEC professional development in order to promote social innovation and education and care for *all*, especially social inequality.

• Initiate and participate in communities of practice (CoP) and communities of innovation (CoI) (see policy priority iii) in order to ensure sustainable innovation for *all*.

Recommendations for 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.
- Wherever possible, incorporate the use of emerging technologies in order to enhance learning on the classroom and organisational levels, also cross-institutionally.

Recommendations for research:

- Collaborate with practitioners directly in the research process so as to enable cross-fertilisation of research initiatives.
- Undertake empirical studies regarding the processes and mechanisms of innovative approaches that are positively linked to desired ECEC outcomes.

vi. Policy priority: Addressing the vulnerable, and a focus on inclusive ECEC

One of the main focuses of WP3's D3.1 (Jensen et al., 2015) was to identify professional development (pre-service and in-service) that enhances child outcomes for *all*. Underlining this is the objective of uncovering new ways of tackling social inequality. CARE partners were asked to "provide information on how professional development systems are addressing the issues of socially disadvantaged children/families [and what] professional development efforts are being made to integrate [...] and thus help ensure a successful transition [of the vulnerable] to primary schools" (ibid., p. 147). In the data collected, a wide range of individual country and regional definitions were provided as to *who* the vulnerable are: "special needs' children, 'immigrant' children, 'disabled' children, children from 'low income' households, children with 'unemployed parents', 'poor' children, 'at-risk' children and families, and children from 'single-parent' families" (ibid.).

From this, we gain insight into the challenges that ECEC systems face from the core: if the *vulnerable* are ill-defined, then professional development responses to their needs might not be targeted, investments in professional development might be misguided, ad-hoc and reactive, or curriculum might be too general, while structural changes and interventions might also be ill-affected. Moreover, consideration must be taken into account regarding the needs of children from a second-language background and how these may vary greatly from those who are identified as disadvantaged due to violence or socio-economic circumstances. As a result, it is crucial to further elaborate on the distinctions between what is *vulnerable*, what is *special needs*, what is *at-risk*, what is *disadvantaged* and so on. For example, "In many countries, training for working with children at risk is an integral part of initial training, but many other aspects of diversity are not sufficiently covered" (European Commission, 2011, p. 6).

In terms of structure, in most European countries, specialised training for ECEC practitioners exists in pre-service formation. However, arrangement for in-service professional development is disparate:

While in some countries specific training is compulsory for all ECEC staff (Belgium (French Community), Denmark, Spain, France, Austria, Slovenia and Turkey), in others, it is only compulsory for staff preparing to work with older children (Romania, Slovakia and Switzerland) [and] continuous professional development [in-service] programmes specifically designed for staff dealing with disadvantaged children are recommended [...] more often for those working with older children (Eurydice, 2014, p. 18).

The range within, and near invisibility of *disadvantage* WP3 encountered in ECEC systems such as Finland's and Poland's, as compared to coordinated efforts and investments identified in the Netherlands, illustrates wide European divergence on such a pressing part of today's ECEC settings. There is also a lack of knowledge with respect to the changing challenges posed by the vulnerable (Jensen et al., 2015). Questions thus remain as to best practices, particularly for in-service professional development, the effectiveness of such programmes on high quality ECEC and impact on child development.

Shedding light on some of the issues, a European Commission report that examined European literature and case studies, with a focus on children from disadvantaged backgrounds revealed:

All studies focusing on sub-samples of vulnerable children report that high quality ECEC benefits especially children from the most disadvantaged backgrounds, whose gains in cognitive and socio-emotional development are higher than for middle-class children. The research further suggest that a universal service providing good quality

programmes for all, in which special attention is given to disadvantaged children, is preferred over separate provision focussed exclusively on targeted populations. In addition, children from disadvantaged backgrounds gain most when ECEC services are closely linked to employment, health and social policies that promote a more equal redistribution of resources across a population (Bennett, 2012, p. 8).

In the same report, some "good examples" of professional development that would realise positive child outcomes were suggested, including those implemented by the Open Society Foundations/ International Step by Step Association. In this programme, certification for "teaching excellence" was integral, a mentoring system was implement, including monthly visits by mentors (now replaced with "local and on-line professional development communities" (see Policy priority iii in this report for CoPs) – demonstrating a move from hierarchical teaching to the horizontal, co-construction of knowledge and practice – and online professional development support, including a communication forum, a library of resources and online education in the form of courses (ibid., p. 46). Urban et al.'s (2011) recommendation of using CoPs was also highlighted for the renewal of trainings that would encompass work with the broader stakeholders of ECEC, including local communities and parents.

Tackling inequality must also encompass measures and practices to preventing inequality. Integration in an open EU space, alongside immigration challenges as well as social and economic affairs call for continued professional development. These must include "intercultural approaches, approaches to second languages, working with children with special needs, working with children at risk and a special focus on language acquisition (Eurydice, 2009)" (quoted in OECD, 2012, p. 149). In terms of the challenges to ECEC staff in particular, identified are issues regarding:

Lack of pedagogical quality among teachers, for example, lack of empathy for diversity or disadvantage; lack of training in the skills necessary to practice effective outreach to marginalized communities and children; lack of knowledge and understanding of the early childhood curriculum and how young children learn; inadequate teacher-child verbal interactions; lack of skills in engaging parents in children's learning; lack of attention to ongoing quality improvement through, for example, team documentation, research, and professional development. Many of these issues can be resolved by better initial training and ongoing professional development, but pay, working conditions, and the motivation of staff may also need consideration (Bennett, 2012, p. 37).

Tackling this will require ECEC systems to make use of multi-dimensional professional development resources, interventions and evaluation processes, with the aim of supporting practitioners in their competence development (Peters & Sharmahd, 2014) in fulfilling the demanding tasks of increasingly heterogeneous daycares and classrooms. There are several standalone studies on the vulnerable but a dearth of large-scale, cross-country analyses on these aspects of ECEC and professional development, and even less on the link with child outcomes (Jensen et al., 2015).

Recommendations for policy:

- There is a need for placing inclusiveness high on the priority agenda for ECEC, as a means to tackling social inequality.
- Identifying the vulnerable and defining inclusive education must be mandated at the highest possible decision-making level.

Recommendations for practice:

- Involve the wider community, policy and parents in the pedagogical practices ascribed for greater inclusiveness.
- A greater engagement of ECEC centres and staff in CoPs, including higher education institutions will better inform changes/innovations to curriculum and the formal education of future ECEC staff so as to better prepare for the vulnerable and their needs.

Recommendations for research:

- There is a need for comprehensive and focused studies on who the *vulnerable* are across Europe and how they encounter/experience ECEC.
- There is 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.

Part IV - Conclusions and perspectives

This report has condensed insights gained through WP3's research on professional development in ECEC and its impact. Despite a current lack of conclusive findings that shed light on which specific elements of professional development influence child outcomes, there is a clear positive effect overall, making this a facet in ECEC of strategic and social importance.

Six priority areas have been identified as being of high value to strengthening professional development and its role in ECEC. With respect to the academisation of ECEC practitioners, there are arguments that both support and express apprehension. 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.

For the second priority, tensions around the organisation of support (financial or other) for professional development were highlighted – vastly unequal across Europe. The main argument presented was that in light of the positive effect of professional development on child outcomes, greater awareness and concrete initiatives should take place for organising and making – especially – in-service professional development compulsory at all levels.

Thirdly, we presented how CoPs and CoIs are being leveraged today as a source of sharing knowledge and insights between ECEC newcomers and experts – as a sort of ongoing professional development and a source of renewal for practice. Given their increasing importance to professionalisation and sustainable workforce development, innovation and social change, engagement in CoPs and CoIs at all levels must be extended.

In a fourth priority area, we turned to quality in professional development and how this consists of structural and processual quality that lead to improved child outcomes. Evidence for and elucidations on the precise relationships between aspects of quality is still needed. Yet, monitoring and evaluation can help, while also serving as professional development tools. Overall, we found that leadership on quality at the macro level (systemically) is lacking in Europe even though micro and meso levels of ECEC take the prerogative.

The fifth policy priority addressed innovative approaches in professional development and how ECEC professionals draw upon innovation in order to meet societal challenges and change. We distinguished innovative approaches on threes levels: 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 CoPs and CoIs). Especially highlighted was reflective practice, which is becoming integral to all levels of ECEC throughout Europe (both for in-service and pre-service). Yet, there is still a clear knowledge gap in terms of the processes and mechanism of innovative approaches that are positively linked to child outcomes.

Finally, we have called attention to the policy priority area of the vulnerable in ECEC 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.

For each of these priority areas, recommendations were made for policy, practice and research so as to target the issues that are most in need of attention and that can yield high impact for positive change. These are not intended to prescribe, but rather, to inspire actors in each of the various European contexts and levels. The recommendations offered can help raise European standards, yet cultural sensitivities and systemic needs will influence how best to implement changes within each of the national, regional and local settings, keeping at the forefront, the paramount goal of enhancing child outcomes for *all*.

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