ISOTIS

INCLUSIVE EDUCATION AND SOCIAL SUPPORT TO TACKLE INEQUALITIES IN SOCIETY

T5.2 Inventory and analysis of professional development and models related to inclusiveness

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EXECUTIVE SUMMARY

In view of life-long learning there is a lot of attention for on-going and continuous professional development (PD) that can contribute to changing professionals'[1] competences and behaviour. In our comprehensive conceptual framework we distinguish three main components relating to the *who*, the *what* and the *how* of PD situated within the larger (organisational) context. The first component (who) encompasses the characteristics of the professionals and the context they work in. The second component includes the content of PD (what). Lastly, the third component focuses on the strategies and delivery modes (how) that are used to implement PD. In this transactional model, professionals' knowledge, skills, attitudes and beliefs are hypothesized to have a bidirectional relation with behaviour and practices, which is facilitated by enactment (the translation of new beliefs into action) and reflection. Although there are numerous review studies and meta-analyses into the effectiveness of PD that have identified some important elements, these studies have not fully addressed the underlying mechanisms of PD. Moreover, systematic research into PD aimed at cultural diversity, inclusiveness and multilingualism is currently lacking.

The current study aims to contribute to the existing knowledge base by investigating European PD initiatives that are either focused at the topic of cultural and linguistic diversity and inclusiveness or that are considered promising regarding the PD approach that is used (i.e. including team-based models of PD, using ICT in the intervention or targeting professionals working with hard to reach groups). A total of 81 PD interventions were included in the inventory covering information collected in ten countries: Czech Republic, England, Flemish Belgium, Germany, Greece, Italy, the Netherlands, Norway, Poland and Portugal. Three main components of PD were investigated: characteristics of the professionals and context, the content and the strategies and delivery modes. First, the results will be summarized according to these components, followed by a more integrated discussion of the main findings and conclusions.

CHARACTERISTICS OF THE PROFESSIONAL AND THE CONTEXT

The majority of studies focused on (pre)school teachers as professionals and, relatedly, the type of institution mostly concerned a school setting. Only in about 20% of the interventions the professionals were working in social services, NGO's or other types of public or community services. In the majority of the cases the interventions were not aimed at professionals working with a specific target group. In case interventions were focused at professionals working with specific groups, this most often concerned generally disadvantaged groups, second language learners or Romani families. All of the interventions were focused on the level of the (para)professional, but in 29% of the cases someone at the management level was included as well.

A more in-depth look at the interventions for different types of professionals revealed some differential patterns. It appeared that interventions for professionals working in ECEC provisions and in NGO's focused mainly on knowledge and skills, whereas interventions for professionals working in primary and secondary education more often included a focus on attitudes as well. In addition, interventions for professionals working in social services more often included an emphasis on beliefs. The results showed that interventions for professionals working in primary

[1] In the current study *professionals* refer to agents working with children or families in informal or formal institutions, which could involve a wide variety of professionals such as teachers, social workers and paraprofessionals.

and secondary education more often (also) included a focus on multilingualism, besides cultural diversity or inclusiveness. This suggests that there appears to be less attention for multilingualism in interventions for professionals working with the youngest children and in social services. Another difference concerns the finding that interventions that were aimed at paraprofessionals or carried out in NGO's showed a stronger focus on practice rather than on theory in comparison to interventions for other types of professionals working in a school setting. Finally, interventions aimed at both paraprofessionals and teachers showed a larger variety in PD strategies. Specifically, coaching and reflection were more common, especially in combination with training.

The majority of interventions was universal and not targeted at professionals working with a specific group of children or families. However, the results indicated that interventions that were aimed at working with specific target groups (e.g., second language learners or Romani children) more often included a focus on beliefs and attitudes, besides knowledge and skills, compared to more general interventions.

CONTENT OF PROFESSIONALS DEVELOPMENT

A focus on knowledge and skills appeared to be the common denominator across the majority of interventions (78%). The most common combination of focus domains involved professionals' knowledge, skills and attitudes (38% of the interventions), followed by interventions targeting only knowledge and skills (24%). Overall, the results showed that the majority of interventions were both theory and practice based, but interventions targeting beliefs and attitudes were more often merely practice-based compared to interventions focusing on knowledge and skills. In addition, interventions focusing also on attitudes or beliefs more often relied on face-to-face delivery modes compared to interventions aimed at knowledge and skills only. Moreover, interventions aimed at attitudes and beliefs as well more often used reflection and/or coaching in addition to training compared to interventions targeted at knowledge and skills only. Lastly, interventions with a focus on attitudes were more often targeted at both the individual and the team, compared to interventions aimed at only knowledge and skills.

About 70% of the interventions addressed cultural diversity, multilingualism and/or inclusiveness. However, it appeared that a focus on diversity and inclusiveness was more common for professionals working in ECEC, NGO's and social services, whereas an additional focus on multilingualism was evident in primary and secondary school settings. Other topics included child development, general classroom quality or parent involvement. Further, it appeared that a focus on knowledge and skills was the most common across all topics. However, interventions aimed at child development had a stronger focus on professionals' attitudes compared to interventions aimed at parent involvement.

Interventions targeted at diversity or inclusiveness more often included a focus on beliefs or attitudes, besides knowledge and skills, compared to interventions aimed at multilingualism. This also relates to the type of PD strategy that was used. Interventions focused at cultural diversity and inclusiveness relied more heavily on reflection as PD strategy, whereas interventions aimed at multilingualism more often used a training approach.

PROFESSIONAL DEVELOPMENT STRATEGIES AND DELIVERY MODES

Training was still the most common PD strategy and was used in 85% of the interventions, followed by reflection (73%) and coaching (46%). This suggests that often a combination of

strategies is used of which a combination of training, coaching and reflection was the most common (38%), followed by a combination of training and reflection (24%). In fact, 70% of the interventions relied on more than one strategy. Interventions employing a single strategy mostly used training, whereas coaching was more frequently used in comprehensive interventions that also included training and reflection.

Interventions were mostly delivered face-to-face and also a combination with online delivery was rather common, but a solely online delivery of PD was infrequently reported. Following from this, the use of ICT was necessary at least to some extent in more than half of the reported interventions. The use of ICT ranged from organisational purposes (such as e-mail or website for information) to more elaborate and complex e-learning modules or entire Virtual Learning Environments.

The majority of interventions concerned individually focused PD or a combination with a team-based approach, but a solely team-based approach was less common (only 14% of the interventions). The interventions were implemented either by an internal person within the organization (30%) or it was a joint responsibility between an internal and external person (33%). Interestingly interventions that were implemented by an internal person more often included an emphasis on beliefs and attitudes, besides knowledge and skills, compared to interventions where an external person was involved. Also, interventions addressing cultural diversity and inclusiveness more often involved an internal person whereas interventions focusing on multilingualism only, more often had an external person for implementation.

A more detailed look at the patterns of results concerning the different strategies and delivery modes shows that interventions including training, reflection and coaching more often combined face-to-face and online delivery modes. In addition, these comprehensive interventions also more often combined an individually oriented with a team-based approach. Furthermore, the face-to-face delivery mode was most common for trainings, whereas reflection more often occurred using an online mode. Training was more often individually based, whereas reflection and coaching was more often applied in a combination of individual and team-based PD.

MAIN CONCLUSIONS

First, the results illustrated the importance of reflection as strategy, which is aligned with the idea of continuous forms of PD. Reflection was more often used in combination with other strategies. However, also a few critical issues were raised concerning the use of reflection, such as having enough time. Another aspect relates to the way reflection is used and facilitated. In order to be effective, reflection needs to be critical and constructive, which requires a good support and facilitation of the reflection process.

Second, the findings showed that interventions focused on changing professionals' knowledge, skills and attitudes often used reflection as PD strategy while focusing both at the individual and team level of the organisation. For instance, interventions focused at cultural diversity and inclusiveness included a focus on attitudes using reflection and a combination of individual and team-based PD. It could be that diversity and inclusiveness are more sensitive topics compared to multilingualism that are likely to elicit (strong) feelings, opinions, values or norms from professionals. This might require more dynamic forms of PD, such as reflection, that involve the team as a whole, rather than a single professional and that incorporate a focus on attitudes besides knowledge and skills to change professionals' behaviour and practices. However, the combination of these three components was not equally common across the different topics of the interventions.

Interventions aimed at multilingualism, for example, more often focused only at knowledge and skills while using an individually based 'training only' approach. However, multilingualism might also be related to (strong) feelings, opinions, values and norms, although people might be less aware of this. The sometimes (strong) assimilationist approaches in (pre)school settings with often a negative attitude towards the use of the heritage language is an illustration of this, hence interventions focusing on multilingualism might also benefit from taking a broader approach targeting professionals' attitudes as well. Moreover, it seems important to establish a shared vision and common understanding on how to best support children's heritage language, which might require a stronger focus on joint reflection rather than only a knowledge and skills based training. Overall, the results showed that multilingualism was an understudied topic in interventions for professionals working with the youngest children. Given the importance of (first) language acquisition and the fact that a substantial amount of children is attending ECEC already from an early age, this points to the need for more PD initiatives focusing on multilingualism.

Lastly, the findings revealed a role for ICT in PD. However, it also seems that having a minimum of face-to-face contact remains important, particularly for reflection. The results of the inventory showed some examples of how ICT can be used for a variety of purposes, such as e-learning activities, video-based reflection, online exchange of practices and online tools for self-reflection. However, it seems that in-depth reflection might be more beneficial in a face-to-face setting, which can be done within a team of colleagues or other professionals. Hence, it seems worthwhile to explore the use of ICT to maximally facilitate professionals' learning, but also facilitate opportunities for collegial exchange in real life.

LIST OF DEFINITIONS OF KEY CONCEPTS

A list with the most important definitions and key concepts is presented below.

Attitudes refer to a system of beliefs about ideas, objects and people or situations predisposing one to respond in some preferential manner (Rokeach, 1968).

Beliefs or values are considered to be knowledge-based, but contain an affective element as well, as it implies a certain judgement or evaluation, whereas knowledge is neutral in nature (e.g. Flores & Smith, 2009; Nespor, 1987).

Coaching/mentoring concerns PD activities based on a professional relation between two people, either peers (collegial coaching/mentoring) or a novice and more experienced person. Coaching sometimes is viewed as more strongly focused at skills, whereas mentoring involves an element of counselling (Kennedy, 2005; Rhodes & Beneicke, 2002).

Competence is defined as a combination of knowledge, skills and attitudes that is considered appropriate in a given context (European Council, 2007).

Expectations are a function of professionals' beliefs and attitudes and, in turn, can affect everyday behaviour.

Formal learning is typically provided by an education or training institution, structured (in terms of learning objectives, learning time or learning support) and leads to certification. Formal learning is intentional from the learner's perspective (CEDEFOP, 2003).

Formative assessment is conducted during the implementation of the program and is aimed at improving the PD program. It includes the delivery of the program, the quality of implementation and the assessment of the organizational context, the professionals or technology.

Informal learning concerns learning resulting from daily life activities related to work, family or leisure. It is not structured (in terms of learning objectives, learning time or learning support) and does not lead to certification. Informal learning may be intentional or non-intentional (or incidental/random) (CEDEFOP, 2003). For instance, observing colleagues or asking for feedback on your practices.

Interventions are programs or approaches that are implemented with the intention to change professionals' knowledge, skills, attitudes or current practices.

Intervision concerns reflection and exchange of own (educational) practices with one or more colleagues.

Non-formal learning is embedded in planned activities that are not explicitly designated as learning, but which contain an important learning element (something described as semi-structured learning). It is intentional from the learner's perspective. Non-formal learning does not lead to certification (CEDEFOP, 2003). Examples might be mentoring/coaching, reflection/intervision or having team meetings to discuss the pedagogical goals of the work, design and implementation of (classroom) curriculum/activities.

Professionals are viewed as agents within a wider context of the school, institution or organisation and are considered the people interacting with children directly either in a formal (school) setting or an informal out-of-school (community based) setting.

Professional development concerns the full range of activities aimed at professionals' knowledge, attitudes, beliefs and skills. Given the interrelatedness of all these different components a multidimensional approach to PD is required. PD includes both pre-service education at the vocational, Bachelor or Master (including post-graduate training) level and continued PD activities that take place within a school or organization, such as continued in-service training or lifelong learning initiatives.

Professional development delivery modes concern the different ways of delivering the PD.

- **Individual vs team/organizational.** Professionals can take part in PD individually, which may be based on their own needs and desires or part of obligatory referral, whereas it can also be a team-based effort in which a team (or an organization as a whole) takes part in PD. The choice will likely affect the level of implementation and sustainability of PD in the organization.
- **Face-to-face PD vs online learning with ICT**. Different forms of PD can be conducted using ICT. For instance webinars or examples of good practices presented in a digital learning platform, video-based feedback and coaching from a distance, reflecting on practices and exchanging experiences in a professional learning community.

Professional development strategies consider the different ways of learning that can occur.

- **Training** or a course (either in-service or externally). These are usually relatively short courses in terms of duration and intensity, but can also involve attaining a post-graduate degree.
- **Coaching** on the job or mentoring can either be done by a colleague or pedagogical leader (internal) or an external expert, such as a pedagogue or psychologist. Usually coaching involves the use of (video-based) observation and feedback as main principles.
- **Reflection**, sharing and exchange of ideas, views and beliefs related to daily practices (communities of practices or communities of learners).

Summative assessment concerns the evaluation of a PD intervention focused at the outcomes or impact of the intervention. This could involve outcomes of professionals in the targeted domain: knowledge, skills, attitudes, beliefs, practice and behaviour or outcomes for children.

Training involves PD activities occurring outside of the formal education system, including in-service training, courses and workshops (Maxwell, Field, & Clifford, 2006).

AIMS OF THE INVENTORY

The aims of the current study are twofold. The first goal is to bring together the existing knowledge and research concerning general professional development (PD) that is considered effective or at least promising in changing professionals' competences and behaviour. There are several meta-analyses conducted on PD, which provided the starting point for the current inventory. The current study aimed to extend the existing research base, that is strongly based on studies from the United States and Anglo-Saxon countries, with published and unpublished literature from the participating European countries to identify key ingredients of PD that are considered promising. Special attention was paid to models of team-based learning and the use of ICT. Secondly, the inventory aimed to add to the existing research base concerning PD programs and approaches that specifically addressed cultural and linguistic diversity, multilingualism and inclusiveness in Early Childhood Education and Care provisions, schools and community programs or the work with disadvantaged children and families.

The inventory was carried out in several steps. An initial framework laid out the criteria for searching and selecting studies to be included in the inventory. To further develop this framework an expert meeting was organized with all country representatives and with experts from selected (on-going) projects to share knowledge and increase the understanding of promising ingredients of PD. Next, based on the final framework all partners conducted a literature search to identify promising PD programs or approaches in their own country. The results of the inventory were collected and analysed by the core team with the aim of identifying key ingredients of promising PD programs or approaches in Europe and providing an in-depth description of one interesting case study example of each country.

1. INTRODUCTION

European countries are facing increasing societal cultural diversity, which Vertovec (2007, 2010) has coined as *super-diversity*. This refers to a complex diversity and interplay of variables, including country of origin (and relatedly traits as ethnicity, religion, language, traditions, cultural values and practices), migration channel and legal status. Also Crul (2015) supports the notion of super-diversity and argues that large variation exists within ethnic or cultural groups and he shows how the interplay of different contextual factors, such as the education system and the labour market institutions, are related to upward social mobility. In 2013 around 10% of the population of children was foreign born (Eurostat, 2015), but there is large variation both within and between states of the European Union (E.U.) with particularly high shares of immigrant or multilingual children in urban contexts (e.g. van Gorp & Moons, 2014; Michel & Kuiken, 2014; Young, 2014). Schools in large European cities dealing with children from fifteen different nationalities are no exception (Crul, 2015). Moreover, large differences exist between countries regarding the integration context as affected by national or local policies as well as institutional arrangements in for instance preschool, primary and secondary education and the labour market (Schneider & Crul, 2012). Since 2013, migration has more than doubled in some countries, thus the migrant population of children has likely increased as well (Eurostat, 2015).

Multilingualism is considered an important goal of current language education policies, at least at the E.U. level (Vetter, 2013). The current E.U. stance towards multilingualism emphasizes the positive value of other languages, including minority languages, and welcomes linguistic diversity. Currently the website of the E.U. states: “education systems need to ensure the harmonious development of learners’ plurilingual competence through a coherent, transversal and integrated approach that takes into account all the languages in learners’ plurilingual repertoire and their respective functions” (Council of Europe, 2012). Furthermore, in the Barcelona European Council Conclusions the goal of ‘Mother tongue +2’ was formulated, which focuses on teaching at least two foreign languages from an early age (Council of the European Union (2002). However, the focus seems to be mainly on acquiring foreign languages that are considered useful for the future with a predominance of English as second language and to a lesser extent German and French. Policies on European and national levels, even at local levels, have not yet adopted a consistent approach in dealing with multilingualism in education concerning minority languages (Vetter, 2013), while increasing evidence is available supporting the importance of the mother tongue in developing an (cultural) identity (e.g. Berry, Phinney, Sam, & Vedder; 2006; Cummins, 2001; Phinney, Horenczyk, Liebkind, & Vedder, 2001). Studies have shown that support of the heritage language and culture is related to better well-being, mental health and school achievement (Berry et al., 2006; Chen, Benet-Martinez, & Bond, 2008). Prohibiting or discouraging children and their families to speak their mother tongue, either at school or at home as well, can increase feelings of rejection and disrespect for their cultural heritage. However, currently a predominant focus on the majority language is evident in multiple countries, such as Austria, Belgium, Luxembourg and the Netherlands (Blom, 2015; van Gorp & Moons, 2014; Vetter, 2013; Young, 2014), with examples of school regulations prohibiting children to speak their own language during recess. This focus on learning the majority language is mostly based on the (false) assumption that language acquisition requires full immersion into the majority language and that attention for the mother tongue is detrimental for second language learning. However, increasing evidence suggests otherwise. A strong foundation in the mother tongue has shown to be of importance for second language learning (e.g. Cummins, 2001). Moreover, research has shown that bilingualism can even be beneficial in other domains of development. A recent review and meta-analysis involving over 6000 participants has shown the moderate positive effects of bilingualism on a

number of cognitive outcomes, such as attentional control, working memory, metalinguistic awareness and representation skills (Adesope, Lavin, Thompson, & Ungerleider, 2010).

The increasing cultural diversity and multilingualism of families in Europe is a challenge for teachers working in ECEC or school settings and raises the need for professional development in order to support teachers (van Gorp & Moons, 2014; Michel & Kuiken, 2014; OECD, 2013; Young, 2014). Several professional development programs have been implemented in Europe to support teachers in dealing with cultural diversity and/or multilingualism, although mostly on a local level and on a small scale (e.g. van Gorp & Moons, 2014; Michel & Kuiken, 2014; Young, 2014). However, the professional development strategies used in these countries are divers in both the content they addressed, i.e. use of curriculum or specific materials and regarding the form used, i.e. using courses, coaching or team-based models of learning. A large research base supports the effectiveness of professional development in increasing quality of ECEC and school settings, or in improving teacher's teaching (e.g. Egert, 2015; Fukkink & Lont, 2007; Jensen & Iaonne 2015; Schachter, 2015; Zaslow, Tout, Halle, Whittaker, & Lavelle, 2010), but the effects depend at least partly on the model of professional development. Increasing evidence suggests that merely providing knowledge-based courses is not sufficient to achieve long-lasting effects (e.g. Zaslow et al., 2010). In a review by Villegras-Reimers (2003) some key characteristics were identified to describe a new perspective on PD. Firstly, PD should take a constructivist approach in which professionals are viewed as active learners, rather than a 'transmission-oriented' approach. Secondly, PD should be perceived as an on-going long-term process in which professionals can acquire new knowledge and skills that build on prior experiences. Further, PD occurs within a particular context and is most effective when related to daily practice and experiences. Finally, the professional is conceived as a reflective practitioner who collaborates with colleagues which contributes to the effectiveness and sustainability of PD. Commonly a distinction is made into traditional forms of PD, which involves courses, conferences or workshops, and modern approaches, such as coaching, mentoring, blended learning or communities of learners (Egert, 2015; Villegras-Reimers, 2003). The more traditional forms of PD, such as lectures, conferences and workshops are still among the most common forms of professional development (OECD, 2013), but may not be the most effective (Brajković, 2014). Courses, lectures and conferences usually allow for less reflection and collaborative exchange and tend to have a stronger knowledge-transmission orientation. Effective PD may require more dynamic aspects such as reflecting on practices, observation and feedback on practices or coaching on the job, as a means of continuous progressive enhancement of the quality of work, which calls for other forms of PD.

Several meta-analyses and review studies have highlighted the effectiveness of professional development (PD) in improving professionals' competences and behaviour (Egert, 2015; Fukkink & Lont, 2007; Schachter, 2015; Zaslow et al., 2010). To date the majority of research that has been published is from the United States and only few published studies were conducted in European countries (e.g. Jensen & Iaonne 2015). Therefore, the current inventory is explicitly meant to identify interventions that may not be published in English or in scholarly journals or interventions that have not been well researched yet and to give an impression on the state of affairs in Europe in order to complement the literature review based on the established Anglo-Saxon literature.

Zaslow et al. (2010), in their influential review based on PD interventions in the United States (U.S.), highlighted several gaps in the current knowledge base. For instance, they noted that most of the research focused on the content of the PD rather than on the processes and strategies used in PD, which can inform the improvement of PD programmes in terms of effectiveness. Likewise, Egert (2015) pointed out that little is known about the underlying

mechanism of PD that contributes to its effectiveness. Effectiveness and sustainability of PD might be related to the targeted domain (i.e. knowledge, skills, beliefs or attitudes) and might depend on the type of PD strategies or delivery formats that are used. Zaslow et al. (2010) also highlighted that research on PD focused at cultural and linguistic diversity is currently lacking, which is problematic in view of the increasing societal diversity.

In view of embracing cultural and linguistic diversity and enhancing social inclusiveness it is important to take a multidimensional approach to PD targeting knowledge, beliefs and attitudes and the transfer to actual behaviour and practices. The current inventory aims to put together the existing Anglo-Saxon literature on PD and complement this with European research (published or unpublished in the country language). In doing so the main aims are twofold. The first aim is to gain a better understanding in the processes of PD that seem to be effective. The second aim is related to the content and specifically addresses PD targeted at dealing with cultural or linguistic diversity and promoting inclusiveness. In the next chapter the existing Anglo-Saxon literature is reviewed in order to provide a conceptual model of PD. Chapter 4 presents the results of the inventory of European PD interventions following the conceptual model of PD and with a specific focus on interventions targeted at diversity and inclusiveness.

2. PROFESSIONAL DEVELOPMENT

This section will address the conceptual model that guided our work and will discuss the state of affairs in the current (Anglo-Saxon) literature. In the current review the term "professional" should be viewed in a broad sense, referring to all professionals working with children or families directly, see Key Definitions. However, the majority of research will draw upon the literature from (early) education and will consider *teachers* as the main type of professionals. In the context of professional development we follow the lifelong learning approach - all learning activity undertaken throughout life, with the aim of improving knowledge, skills and competences within a personal, civic, social and/or employment-related perspective (CEDEFOP, 2003). Competences are viewed as the combination of professionals' knowledge, skills and attitudes, resulting in everyday behaviour and practices, see Box 1 below.

BOX 1. DEFINITIONS

Knowledge refers to the information professionals acquire that is related to their work with children and families.

Skills reflect the professionals' capacity to respond in a way that is appropriate in the given circumstances and based on what he/she has learned about effective (teaching) practices.

Attitudes refer to a system of beliefs about ideas, objects and people or situation predisposing one to respond in some preferential manner (Rokeach, 1968).

Beliefs or values concern thoughts and feelings about children and families and about the work related to that. Although these beliefs and values are considered to be knowledge-based, they contain an affective element as well, as it implies a certain judgement or evaluation, whereas knowledge is neutral in nature (e.g. Flores & Smith, 2009; Nespor, 1987).

Behaviour concerns the actual, everyday practices taking place in interaction with children and families.

Professional development (PD) is used as a means to improve professionals' competences or behaviour, as will be discussed in more detail in our theoretical framework. PD refers to all actions and activities focused at education, training and development opportunities for professionals (Sheridan, Edwards, Marvin, & Knoche, 2009). Following Sheridan et al. (2009), the ultimate goal of PD is improving children's developmental or educational outcomes. In the short term PD can serve two main objectives related to the professionals who are involved. First, it is assumed that PD will advance professionals' knowledge, beliefs, attitudes, skills, behaviour and (teaching) practices. Secondly, PD enhances opportunities for on-going professional growth in individuals and organizations, which can be viewed as important in the context of lifelong learning (European Council, 2007). The latter refers to an increasing understanding of the importance of establishing sustainable and continuous approaches of improving (teaching) practice in view of a rapidly changing societal context. This means that PD gradually moves from a more externally initiated or oriented process in which external demands are triggering professionals to engage in PD into a more individual and intrinsically motivated process of self-improvement resulting in a more dynamic attitude of a 'learning professional'. It also highlights a shift in agency in which professionals are perceived as active learners who shape their own learning process through reflective professional development (Clarke & Hollingsworth, 2002). Following this development, different forms of PD (i.e. training, coaching or collegial exchange) targeting different domains (i.e. knowledge, beliefs, attitudes or skills)

might be appropriate during different stages of this process. Next we will present the theoretical framework that has guided the work in the current study.

2.1. CONCEPTUAL FRAMEWORK OF PROFESSIONAL DEVELOPMENT

Figure 1 presents the conceptual framework for professional development. This model builds on work by Buysse, Winton, and Rous (2009) and situates the professional within a larger (organisational) context that provides important preconditions that contribute to the effectiveness of professional development. This context includes aspects as the organisational structures, policy and resources, access and outreach and evaluation procedures. Three core components can be distinguished relating to the *who*, the *what* and the *how* of PD.

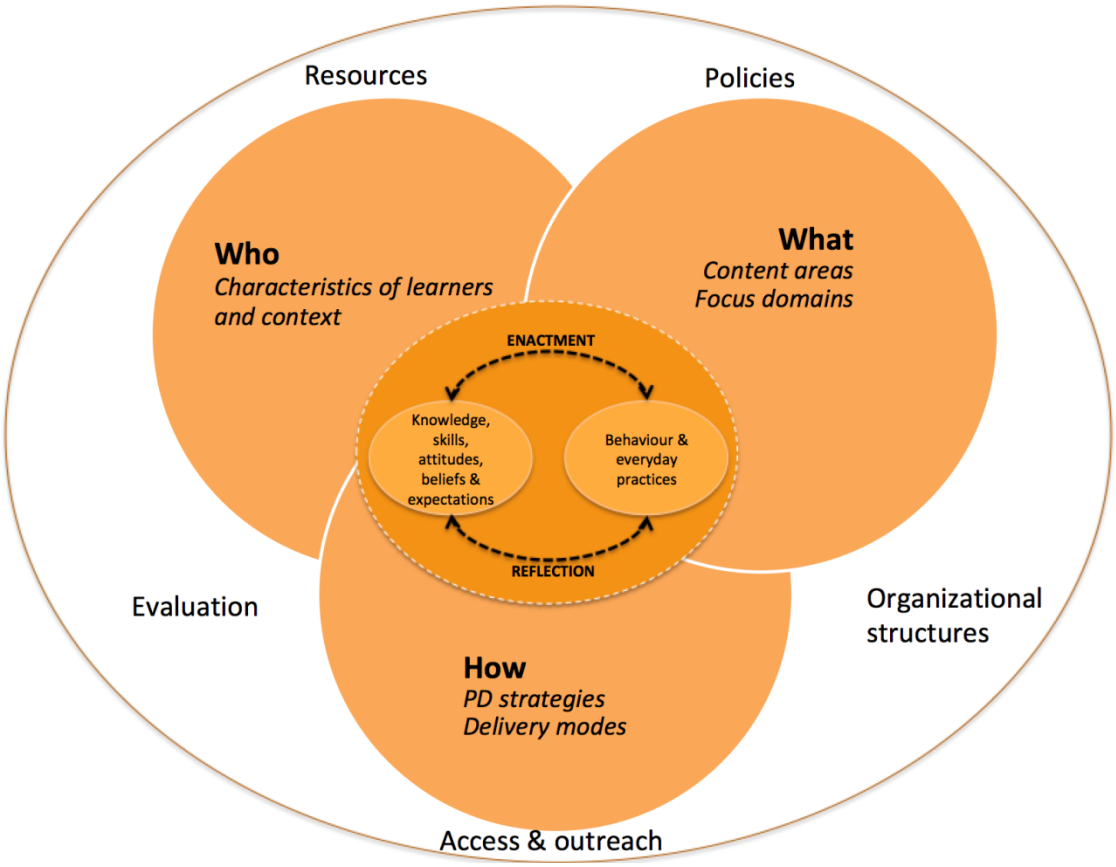

Figure 1. Conceptual framework of professional development

2.1.1. CHARACTERISTICS OF LEARNERS AND CONTEXT

The first component considers the features and background of the professionals taking part in PD as well as the children or families they work with. This concerns the professionals' educational background, work experience, cultural background and the educational, cultural and linguistic background of the families. Effective PD should take into account the specific challenges, needs and desires of the professionals and the population of children and families they work with.

2.1.2. FOCUS DOMAINS AND CONTENT AREAS

This component addresses the focus of the PD program and considers different domains, including knowledge, skills, attitudes, beliefs or expectations, as well as specific content areas, such as diversity and inclusiveness. It is assumed that professionals' knowledge, beliefs, attitudes, expectations and skills affect their practices and thus professional development has focused on addressing one or more of these domains in view of enhancing professionals' behaviour and practices. Besides the focus domains, PD can be very general or have a specific focus on a content area, such as diversity and inclusiveness. Finally, the content of PD can be theory-based, practice-based or a combination of both.

2.1.3. STRATEGIES AND DELIVERY MODES

The third component refers to the PD strategies that are used and the way PD is delivered. Three types of PD strategies are commonly distinguished: training or courses, coaching, consultation or mentoring and reflective practices and exchange, such as communities of learners (Sheridan et al., 2009). Besides the differences in strategies, there are also different ways in which PD can be delivered. Several types of delivery modes can be identified: individually or team-based (or a combination) and face-to-face or online (or a combination). The role of ICT in PD has received growing attention as it increases accessibility and flexibility, is rather cost and time-efficient and it can facilitate collaboration (Villegras-Reimers, 2003).

2.1.4. UNDERLYING MECHANISM OF PROFESSIONAL DEVELOPMENT

Although there are abundant studies into PD and effects on professionals' practices and/or child outcomes, the underlying mechanism has not been extensively investigated (Egert, 2015). The implicit assumption of many PD programs is that targeting professionals' knowledge, beliefs, attitudes or skills impacts their everyday behaviour and practices and ultimately affects child outcomes (Clarke & Hollingsworth, 2002; Egert, 2015; Yoon, Duncan, Lee, Scarloss, & Shapley, 2007). This hypothesizes an indirect effect of PD on actual behaviour. Another line of research, proposed by Guskey (1986), suggests that the mechanism works the other way around: professionals' beliefs and attitudes are likely to change only after having observed changes in actual practice, such as child behaviour or outcomes. Professionals first need to experience that changes in their behaviour are effective in influencing child outcomes before they are able to change their ideas on what constitutes effective behaviour. Building on this view Clarke (1988) proposed a cyclic view on professionals' knowledge, beliefs, attitudes, skills and behaviour in which PD can affect either of these elements that will result in influencing the other elements in a more dynamic way.

Building on these lines of research, we extended the conceptual model proposed by Buysse et al. (2009) and added another layer: the intra-individual level or the process that takes place within a professional, reflected by the inner circle in Figure 1. We view 'reflection and enactment' as facilitators of change (Teacher Professional Growth Consortium, 1994 in Clarke & Hollingsworth, 2002). Change in professionals' behaviour and practices is viewed as a transactional process between professionals' knowledge, beliefs, attitudes, skills and actual behaviour that is facilitated by enactment (i.e. the translation of new beliefs into action) and reflection. Enactment illustrates the on-going interplay between knowledge, beliefs and skills on the one hand and actual behaviour and practices on the other hand. By means of applying newly acquired knowledge, beliefs and skills in everyday practice the professional can (re)evaluate its effectiveness and adapt behaviour and practices accordingly. Reflection can further support this on-going process by explicitly taking the time to think about the

implementation of newly acquired knowledge, beliefs and skills and what are the effects of this change in behaviour and practices.

Following Dewey (1933) and Boud, Keogh, and Walker (2013), we view reflection as a purposeful and goal-directed process in which the professional uses (daily) experience to consider, (re)evaluate and reconstruct knowledge, attitudes, beliefs, skills and behaviour resulting in change in the implementation of this knowledge, attitudes, beliefs, skills and behaviour into everyday practice, see Figure 2. Leberman and Martin (2004) suggest that reflection can take place at different times in the course of PD with different outcomes that ultimately results in transfer of learning to everyday practice. Their evaluation of reflection in a post-course design showed that the participants moved from having affective reflections on the last day of the course to discriminant, judgemental and theoretical reflections two weeks to six months after finalizing the course, highlighting the added value of continued reflection as part of on-going and continuous professional development.

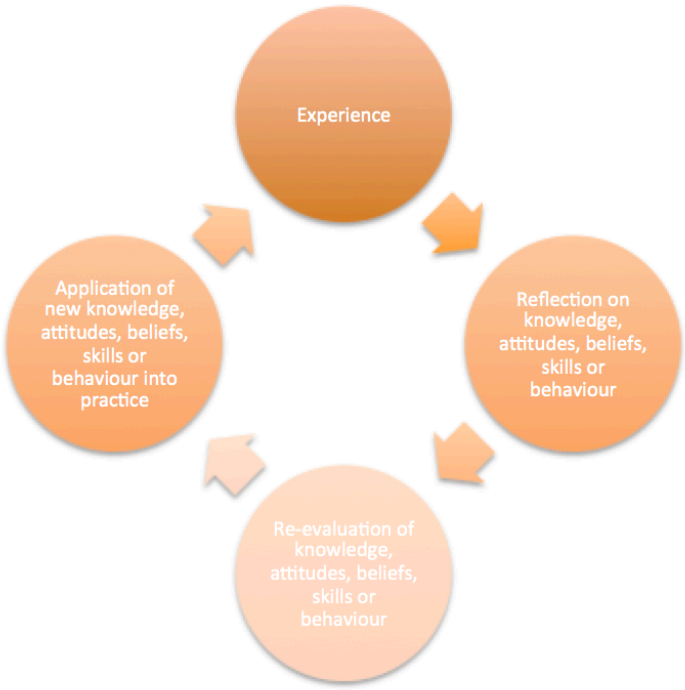

Figure 2. The role of reflection in learning

To conclude, a comprehensive approach towards PD includes three main components involving characteristics of the professionals and the children or families they work with, the content areas and focus domains of PD, and finally the PD strategies and delivery modes. Change in professionals' behaviour and practices is hypothesized to occur through enactment and reflection upon knowledge, skills, attitudes and beliefs. The current report will start with a brief literature review following this theoretical framework. Then we present the methodology and overall approach of the current inventory followed by the description of the results.

2.2. COMPONENTS OF PROFESSIONAL DEVELOPMENT

Following the conceptual framework we distinguish three main components of PD: characteristics of the learners and the context, content areas and focus domains, PD strategies and delivery formats.

2.2.1. CHARACTERISTICS OF PROFESSIONALS AND THE CONTEXT

The role of the context in which PD takes place has not received a lot of attention in the PD literature yet, but it can have an impact on the way PD is shaped and implemented (Villegras-Reimers, 2003). In a broad sense the context considers the features and background of the professionals and the children or families they work with. For the purpose of the current inventory we focused mainly on the characteristics of the families and children professionals work with as previous research has shown that particularly teachers feel ill prepared to deal with cultural and linguistic diversity (DeCastro-Ambrosetti & Cho, 2005; van Gorp & Moons, 2014; Michel & Kuiken, 2014; Siwatu, 2011). Research from pre-service and in-service training programs in the U.S. have illustrated that interventions targeted at working with a specific population of children, such as in highly diverse and urban areas, is needed to better support culturally responsive teaching (Barnes, 2006; Lim, Maxwell, Able-Boone, & Zimmer, 2009; Sleeter, 2001).

2.2.2. FOCUS DOMAINS AND CONTENT ATREAS

A seminal meta-analysis of almost 2000 studies illustrated the relations between teachers' knowledge and actual behaviour (Showers, Joyce, & Bennett, 1987). The authors highlighted that effective professional development entails four different components: 1) theoretical knowledge; 2) demonstration of what this looks like in practice; 3) initial practice in the training or workshop; 4) immediate feedback on their efforts. Moreover, studies have shown the relations between beliefs and actual behaviour, supporting the importance of focusing on beliefs (La Paro et al., 2009; McMullen et al., 2005; Pianta et al., 2005; Stipek & Byler, 1997) and in mediating the relations between knowledge and attitudes on the one hand and practices on the other (Wilkins, 2008). Professionals' attitudes have also shown to be directly related to actual behaviour (Wilkins, 2008).

Another more recent meta-analysis documented the impact of PD on professionals' attitudes, knowledge and skills (Fukkink & Lont, 2007). The included studies all provided training or courses and over half of the studies also included some form of coaching, mentoring or supervision. The majority of studies included in this meta-analysis targeted knowledge, skills and attitudes (53%) and another 29% focused on knowledge and skills, whereas 18% focused solely on skills. The results showed that learning gains were reported in all domains with the largest gain in professionals' attitudes (i.e. effect size of .65) compared to effects on knowledge (i.e. effect size .43) and skills (i.e. effect size .40). The authors proposed that gains in professionals' attitudes might be easier to accomplish in a short time frame, which in turn might be related to gains in skills in the longer term. However, there might be a potential bias in participants' responses after the training leading to an overestimation of training effects.

There is increasing evidence that a combination of training or courses with support in the implementation of the newly acquired knowledge, skills, beliefs or attitudes is needed to ensure transfer of learning and sustainability (Joyce & Showers, 2002; Zaslow et al., 2010). Another meta-analysis indeed revealed that 55% of the studies involved coaching and 36% concerned workshops only (Schachter, 2015). Interestingly, the results also showed that the type of

delivery mode differed depending on the targeted focus domain. PD programs targeted at knowledge, skills and attitudes more often involved a coaching component compared to interventions focused at skills only or knowledge and skills. This means that training or courses alone might not be sufficient to affect attitudes and that additional coaching is needed.

Other studies have also shown that goals or focus domains of PD are important features when considering effectiveness. A meta-analysis has shown that gains in professionals' knowledge were greater when the provision of information is complemented with practice and feedback compared to the provision of information alone (Bennet, 1987; Showers et al., 1987 as cited in Sheridan et al., 2009). Similarly, skill acquisition was more likely to increase when coaching was added to discussion of theory and demonstration. Coaching appeared to be mostly targeted at changing professionals' behaviour (Pianta et al., 2014).

2.2.3. CULTURAL DIVERSITY, MULTILINGUALISM AND INCLUSIVENESS

Several reviews have demonstrated the importance of content focus in professional development (e.g. Kennedy, 1998; Yoon et al., 2007). This not only concerns content on professionals' behaviour, but also includes a focus on professionals' knowledge on a specific topic. There appears to be consensus on the importance of preparing teachers (and other professionals) for the growing cultural and linguistic diversity. However, despite the acknowledgement of the importance, there appears to be little systematic research into PD focused at diversity, multilingualism and/or inclusiveness (Zaslow et al., 2010). The knowledge base for pre-service training is stronger compared to in-service or on-going PD, hence we start by describing the state of affairs concerning pre-service education.

A review into multicultural pre-service education by Sleeter (2001) revealed mixed effects on attitudes of predominantly European American teachers. The reviewed studies all involved coursework, sometimes with the addition of field experience. Overall the studies showed positive effects, but the effects were small and faded out in the few studies that included a follow-up measurement. Although most studies focused on raising awareness and changing attitudes, in some cases the field experience reinforced or produced more stereotypic attitudes. Another study, involving 24 pre-service teachers, revealed that the teachers were at times frustrated by the field experience and had to deal with their own dispositions and regarding the children's backgrounds (Barnes, 2006). Despite these challenges, the results indicated that the teachers applied more culturally responsive teaching methods, learned to better reflect on their practices and showed an increased understanding of children's social and cultural background. These findings illustrate the complexity of adequately preparing teachers for culturally responsive teaching. Sleeter (2001) suggested that merely addressing attitudes and knowledge, although important, might not be sufficient to change behaviour and practices. Providing teachers with concrete strategies might improve their culturally responsive teaching. Indeed, several studies have identified key characteristics for culturally responsive teaching in pre-service training. For instance Brown (2007) highlights the importance of in-depth knowledge and awareness of different cultural groups, moving beyond a basic conception and acceptance of differences, while at the same time establishing a caring, respecting environment and a sense of community.

In a similar vein, Banks (2016) lists five key features of effective PD aimed at diversity: 1) awareness of one's own personal attitudes; 2) knowledge about the history and culture of diverse groups; 3) familiarity with various perspectives in different cultural groups; 4) understanding the ways institutionalized knowledge can perpetuate stereotypes; 5) acquire knowledge and skills for pedagogy that fosters equity.

There is some empirical evidence on PD programs aimed at intercultural competence, diversity and/or inclusiveness. A small-scale long-term project in the U.S. showed gains in teachers' multicultural practices (Zozakiewicz & Rodriquez, 2007). This intervention incorporated three main elements: strong links between theory and practice, on-going and on-site support, and a focus on reflection and collaboration between teachers. Also other U.S. studies illustrated the positive effects of PD on teachers' intercultural competence (DeJaeghere & Cao, 2009; DeJaeghere & Zhang, 2008), especially when PD was tailored to their individual needs or the specific school context (DeJaeghere & Zhang, 2008). Another U.S. study investigated the effects of intercultural exchange among secondary school teachers who visited the U.S. from abroad (Paik et al., 2015). The teachers reported an increase in intercultural awareness and sensitivity, knowledge, and teaching practices. In addition, there is some empirical evidence that PD can change professionals' beliefs and practices related to multilingualism (Ramaut et al., 2013; van der Wildt, van Avermaet, & van Houtte, 2017). These studies from Flanders showed that PD increased professionals' awareness and tolerance towards multilingualism as well as their knowledge about children's background, which resulted in better support in the classroom.

Although there are several PD initiatives across Europe to support teachers in dealing with diversity and/or multilingualism (e.g. van Gorp & Moons, 2014; Michel & Kuiken, 2014; Young, 2014), some of which are collected in a book published by the European DECET (Diversity in Early Childhood Education and Training) network (van Keulen, Malleval, Mony, Murray, & Vandenbroeck, 2004), little is known about the effects of these initiatives on professionals' competences or behaviour.

2.2.4. PROFESSIONAL DEVELOPMENT STRATEGIES

In this section we describe some literature concerning the use of PD strategies and delivery modes. Although there is a wide variety in the strategies that are used in PD, three main types can be distinguished that capture the most commonly applied forms: 1) in-service training or courses; 2) coaching, consultation and mentoring and 3) reflection or communities of practices (Sheridan et al., 2009).

2.2.4.1. TRAINING AND COURSES

Training and courses as part of PD encompass all programs offered to professionals already on the job, after they have finalized a pre-service training. Usually, these trainings or courses have a relatively short duration and intensity, and also include workshops of one or a few days, conferences, lectures or tutorials. Training often concerns transferring knowledge (Pianta, 2006) and the contact with the trainer is usually limited and non-sustained. The use of ICT can be supportive in this type of PD as a means of transferring knowledge by providing E-webinars, online tutorials, and the like. This form of PD can be considered a rather static and standardized way of improvement, and is limited in the extent to which it can be adapted to individual needs or desires of professionals. An important question is how effective this way of PD is and whether transfer takes place beyond the training context into the daily work environment with lasting long-term effects (Sheridan et al., 2009).

Three studies, including one meta-analysis, have demonstrated that training and courses were effective in changing professionals' knowledge, beliefs and skills (Fukkink & Lont, 2007; Hamre et al., 2012; Pianta et al., 2014). However, there is also increasing evidence that training and courses might not be sufficient in the long-term and on-going support might be necessary to ensure sustainability.

2.2.4.2. COACHING, CONSLUTATION AND MENTORING

The second type concerns more individualized and interactive forms of PD in which a professional exchanges information or receives feedback on his/her work or questions from an (internal or external) expert, a supervisor or colleague. Although there are many different forms that distinguish the nature of this relation, they all share the feature that the process is interactive and adapted to the individual professional's needs. This is also considered to be a relatively short-term process with a relatively high frequency of contact to affect professional's behaviour, attitudes or skills. Coaching can be based on an egalitarian relationship in the form of a partnership (i.e. two colleagues who coach each other), but can also be given by someone considered to be an expert in which the relationship is more strongly reflecting the one of a trainer and the trainee (i.e. an internal or external pedagogue working with a professional). Consultation focuses on helping the trainee in resolving an issue or concern via problem solving, social influence or professional support. The consultant can be an authority or expert in the field or a colleague, but the consultation is usually based on a collaborative and supportive exchange (Sheridan et al., 2009). Mentoring usually considers a relation between a more experienced and a less experienced professional in which the first is supposed to act as a role model and support the less experienced professional in improving his/her behaviour, attitudes or skills. Empirical evidence highlighted that coaching has shown to contribute to the transfer of the learned skills or behaviour from the training setting to real-life situations (Showers et al., 1987). In fact, a meta-analysis by Egert (2015) showed that solely coaching was the most effective form of PD.

2.2.4.3. REFLECTION AND PROFESISONAL LEARNING COMMUNITIES

Unlike the first two forms, which can be considered examples of relatively short term PD, reflection and collegial exchange, such as in professional learning communities, are considered examples of continuous PD. Reflection is increasingly recognized as important part of PD (e.g. Egert, 2015), but requires some preconditions. Time and space are the most important aspects, but also adequate emotional support at the organizational level is of vital importance (Moon, 2000).

Professional learning communities and communities of practice are a specific form of reflection and exchange between members of the same community. These professional learning communities are defined as groups of new and experienced teachers who gather together to gain and exchange knowledge, reconsider and reflect upon previous knowledge and beliefs and build on each other's ideas and experiences in order to improve practices and children's outcomes (Brajković, 2014). Professional learning communities are highly valued and preferred as model of professional development in secondary school teachers (OECD, 2013). This could also involve using a community approach and including other types of adults working with children during after-school activities, sports or leisure time. This is a form of team-based PD supporting the notion of collective learning (Stoll, Bolam, Mcmahon, Wallace, & Thomas, 2006). A few key components have been identified that have to be in place to establish and maintain a good professional learning community: shared norms, values and beliefs; reciprocal participation and exchange, collaboration, concern and respect for everyone's view and perspective; meaningful relations.

Knowledge is situated in everyday situations and can be best understood through critical reflection with people who share the same experiences (Vescio, Ross, & Adams, 2008). It is assumed that professional knowledge will increase through this critical reflection, which in turn will affect outcomes (actual behaviour). Some learning communities use a formal protocol or

have an external facilitator to safeguard the process of exchange to make sure it continues to be focused, meaningful and constructive (e.g. Sheridan et al., 2009)

To date, the PD literature reports that professional learning communities are not applied very often yet. For instance, the meta-analysis by Schachter (2015) reported that 14% of the included studies used professional learning communities as PD strategy and Egert (2015) mentioned only 5%. Two review studies showed that professional learning communities contributed to professionals' motivation, willingness to collaborate, openness to self-reflection and collegial exchange (Stoll et al., 2006) and also affected their teaching practices (Vescio et al., 2008).

2.2.5. PROFESSIONAL DEVELOPMENT DELIVERY MODES

Face-to-face PD is still very common, which can apply to all different PD strategies. Traditional face-to-face courses, workshops or conferences are still among the most frequently used PD models (e.g. Egert, 2015; Schachter, 2015; Villegras-Reimer, 2003). However, there is an increasing use of online technology in one form or the other (Villegras-Reimers, 2003). For instance, the meta-analysis by Egert (2015) reported that 15% of the included interventions used some form of online training or support. Examples of online forms of PD include video feedback and online learning communities.

A meta-analysis by Fukkink, Trienekens, and Kramer (2011) showed that video feedback was effective in changing professionals' interaction skills. The use of videos allowed professionals to take some distance and to reflect on their own behaviour. Although this could be complemented with other types of PD, such as instruction or modelling, this did not appear to moderate the effects of video feedback, suggesting that video feedback alone was equally effective in changing professionals' behaviour.

Another example concerns online learning communities. Walker, Mahon, and Dray (2017) compared online learning communities with regular face-to-face learning communities that were aimed at promoting cultural and linguistic responsiveness in teacher and revealed some interesting results. First, the online learning communities provided easier access and more insights into the linguistic and cultural diversity in the classroom compared to the face-to-face communities. The use of video and audio provided a more holistic view on the classroom experiences of diverse children that facilitated dialogue and reflection within the team. Teacher collaboration appeared more smoothly and was accompanied by less tension in the online learning community, but it were exactly these tensions that enabled more critical self-reflection and negotiation of differing perspectives in the face-to-face learning community. These tensions arose between teachers teaching different grade levels, from different cultural backgrounds or with different philosophies or work styles. Teachers in the online learning community did not experience any tension related to these aspects. The teachers in the face-to-face learning community reported about a personal transformation and change in their understanding of themselves as professional, whereas the teachers in the online community did not mention this.

It has been suggested that joint participation in PD, as a team, strengthens the outcomes as it supports the establishment or sustainability of a professional culture in the organisation that facilitates the implementation of the newly acquired knowledge, skills, beliefs or attitudes in daily practice, but empirical evidence to support this notion is lacking (e.g. Egert, 2015; Zaslow et al., 2010). It can be hypothesized that joint PD for professionals from different levels, such as the teacher and director or manager, also strengthens the effects of PD if this is based on a clear vision and shared goals. However, supporting evidence is scarce.

3. METHODOLOGY AND APPROACH

The aims of this task are twofold: to identify promising practices of professional development in general and promising practices specifically targeted at supporting professionals in dealing with *diversity, inclusiveness and multilingualism* in particular. For the first aim, we identified *promising approaches to PD* in general, such as dynamic forms of continuous PD (team-based reflection and learning, learning communities, etc.) and the use of ICT (digital learning communities, video-based PD etc.). Hence, the search for promising PD focused on either promising approaches to PD in general or PD specifically targeted at diversity, inclusiveness and multilingualism or, ideally, all aspects.

3.1. OVERALL APPROACH

To guide the inventory two types of interventions, programs or approaches were included. The first concerned interventions identified as **effective** by means of proven positive results in improving outcomes in professionals or children (for instance RCT studies or other published or unpublished evidence). However, many programs or approaches may lack (scientific) evaluation, but can still be regarded as **promising**. We used the following criteria to identify these interventions as promising:

- it uses an innovative approach in PD, such as team-based learning, professional learning communities, or ICT;
- it is highly regarded among experts, such as researchers and/or professionals in the field;
- it has been used or implemented in a community or region for quite some time, but has not been thoroughly evaluated through research;
- it involves professionals working with hard-to-reach groups.

In this task we include a wide range of PD interventions, programs, approaches or practices to get a comprehensive picture of the work on PD that might be relevant in this regard. Interventions refer to programs that are implemented with the intention to *change* professionals' knowledge, skills, attitudes, behaviour or current practices and are often investigated in studies to evaluate effectiveness.

Two types of evaluation are commonly distinguished: formative and summative evaluation. Where formative assessment is aimed at the process and on-going PD intervention, summative assessment is focused at the outcome or impact of the intervention under study. Process evaluation, as a specific form of formative evaluation, is usually a first step in the evaluation of a PD program and concerns aspects of the delivery of the program or technology and often includes the satisfaction of participants as well. Some approaches or practices in (pre)schools, social or community services might not be interventions in a strict sense (with a clear goal of changing professionals' knowledge, beliefs, skills and practices), but can rather be part of the 'everyday' practices and hence, for that reason, still considered as interesting to include.

3.2. PROCEDURE

The inventory followed a number of steps in order to collect the information from partners, analyse the findings and synthesize them in an integrated and meaningful way.

3.2.1. EXPERT MEETING

The ISOTIS team organised an expert meeting on June 22nd-23rd 2017, hosted by the partner institution International Step by Step Association (ISSA) in Leiden, The Netherlands. For this meeting several experts regarding professional development were invited to share knowledge and experiences on the topic. The conclusions of these discussions were used as input for designing the inventory template that will be introduced in the next paragraph. In addition, several of the presented interventions during the expert meeting were included in the inventory. Moreover, two of these interventions are further elaborated on in the form of case studies (from The Netherlands and Flemish Belgium).

3.2.2. TEMPLATE

A template was prepared by the core team to support all partners in conducting the literature search in their own country. In the manual the procedure was detailed and important definitions were provided to align the work across countries, see Appendix 1. Based on the findings from the literature study the template was drafted by the core team and then sent out to partners to pilot how it worked. The country feedback and pilot as well as the discussion during the expert meeting resulted in some refinements to the template and manual, which were subsequently sent out to partners to conduct the complete inventory for their country. In line with the conceptual model introduced in the introduction, partners were asked to provide information on the characteristics of the learners and context, content areas and the focus domains of the intervention, professional development strategies and delivery modes and assessment through close-ended questions in the template. In addition, partners were asked to provide additional information regarding the goals and duration of the intervention, the use of ICT, assessment and why they consider the intervention to be promising through open-ended questions in the template. The information collected is reported in both quantitative and qualitative ways. The quantitative approach focused on summarizing the results on the key components of PD across all interventions, whereas a more qualitative approach was used to illustrate what these PD components looked like in particular cases and to provide more in-depth information on the use of ICT and aspects of evaluation.

3.2.3. COUNTRY RESULTS AND CASE STUDY EXAMPLES

The findings of all partner countries were combined into one file and entered into an SPSS file to quantify some of the variables. In addition, two interventions from Flanders that were presented during the expert meeting were included as well. We asked partners to describe one intervention more elaborately to illustrate some of the results in a more qualitative way. The case studies were selected based on promising key components of the intervention related to the overall findings of the inventory. Moreover, as the goal of the case studies is to illustrate some of the results, a diverse set of interventions was chosen as case study example. Therefore, we do not always consider these examples to be the most promising interventions each country has to offer, but we do consider certain components of these interventions as promising and relevant for the report.

4. RESULTS

A total of 81 interventions were included in the inventory representing ten different countries (Czech Republic, England, Germany, Greece, Italy, the Netherlands, Poland, Portugal and Flemish Belgium). In line with the conceptual model of PD presented in the introduction, we describe interventions based on the characteristics of the professional and the context, the content of PD and the strategies and delivery modes of PD. Next, we look at patterns between these three components. In addition, results regarding the use of ICT and evaluation will be presented separately. Furthermore, some of the quantitative results are illustrated by case study examples. These examples are presented in separate boxes throughout the entire Results section. Lastly, some general conclusions are highlighted in small boxes at the end of each subsection.

4.1. CHARACTERISTICS OF PROFESSIONALS AND CONTEXTS

Six characteristics of learners and contexts were distinguished: the targeted *professionals*, in which *institutions* the intervention took place, what type of *families* the professionals are working with, which levels of the *organisation* are involved, who is responsible for the *implementation* of the intervention and the *geographical scope* of the intervention.

Several types of professionals were distinguished. Figure 3 shows the percentage of interventions that targeted a particular type of professional. As interventions could be simultaneously targeted at multiple professionals, the figure shows some overlapping (hence the percentages add up to over 100%). Concerning the category 'other professionals' partners listed academic teachers and language specialists.

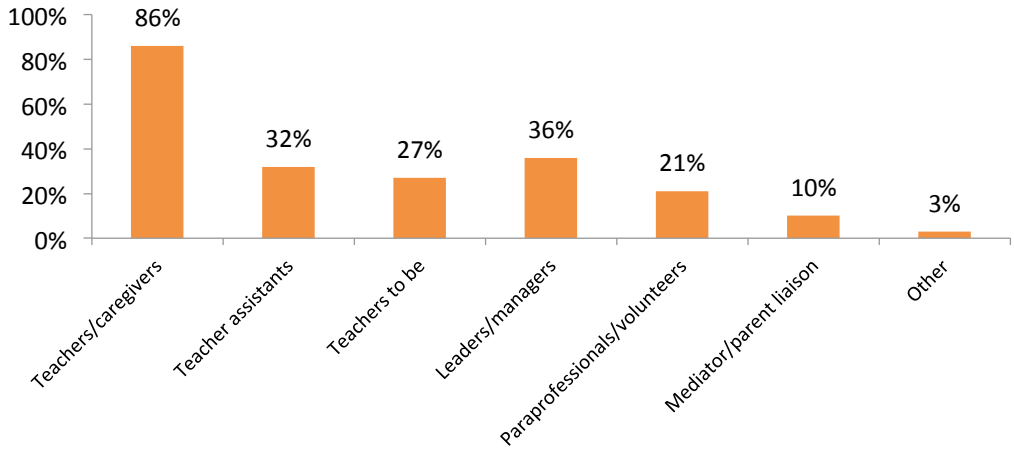

Figure 3. Percentage of interventions targeted at different types of professionals

All interventions, except two, were focused on professionals working with children and families in a (pre)school based setting as a caregiver or teacher (to-be). Of these interventions 25% was targeted both at the teachers and their leaders or managers and 12% was targeted at both teachers and paraprofessionals. Only 2 interventions focused solely on paraprofessionals. None of the interventions were exclusively directed at leaders or managers. A total of 9 interventions (11%) were targeted at teachers and paraprofessionals as well as leaders/managers.

The professionals that were mentioned worked in: ECEC centres (42%), Kindergartens (43%), primary schools (75%), secondary schools (58%), social services (12%), NGO's (6%), after school care (1%), community venues (1%) and school libraries (1%). These categories were not mutually exclusive (hence the percentage add up to over 100%) and the majority of interventions was conducted in more than one type of provision (e.g. primary and secondary school).

In over half of the cases (68%) these professionals were working with a general population fi families and children. The second most common target groups involved generally disadvantaged families/children (10%), followed by second language learners (9%). Romani families were targeted in 6% of the cases and native low-income families and North-African/Turkish families were both targeted in 4% of the interventions.

All of the interventions were implemented at the level of the (para)professional with the majority of the interventions being exclusively focused at the professional level (64%). Management levels (direct manager/team leaders and/or higher level management) were included in 29% of the cases. A total of 5 interventions (6%) included all levels.

In 35% of the cases external trainers/specialists were responsible for the implementation. Other more common implementation strategies were implementation by a professional within the organisation (19%) or a combination of a professional and external trainer/specialist (16%). Overall, in 30% of the interventions the responsibility for implementation lied within the organisation, whereas in 33% of the cases the responsibility was shared between external trainers/specialists and professionals/managers within the organisation.

With regard to the geographical scope, most of the interventions were implemented at a national level (40%), followed by a regional level (20%) and at the local level including multiple organisations/institutions (20%). All interventions were voluntary and not part of compulsory programs.

To summarize, the majority of studies focused on (pre)school teachers as professionals and relatedly the type of institution mostly concerned a (pre)school setting. Only in about 20% of the interventions the professionals were working in social services, NGO's or other types of public or community services. In the majority of cases the interventions were not aimed at a specific target group. In case interventions were focused at specific groups, this most often concerned generally disadvantaged groups, second language learners or Romani families. All of the interventions were focused on the level of the (para)professional, but in 29% of the cases someone at the management level was included as well. Furthermore, the number of interventions where the responsibility of implementation lied either within or outside of the organisation (a combination of both) was rather equal. Lastly, the majority of interventions included was implemented at a regional or even national level.

4.2. CONTENT OF PROFESSIONAL DEVELOPMENT

The interventions were targeted at different content areas, which were not mutually exclusive. The majority, 69%, was specifically focused on cultural diversity, multilingualism or inclusiveness. Furthermore, 46% of the interventions were aimed at child development, 37% at general classroom quality and 25% at parent involvement.

Based on the literature, we distinguished five main focus domains: knowledge, skills, attitudes, beliefs and expectations. These domains can be addressed in different combinations. The findings of the current inventory showed a few main categories. The majority of interventions were focused on one of the following three combinations: knowledge, skills and attitudes (28%), knowledge and skills (25%) or knowledge, skills, attitudes and beliefs (12%). Altogether 78% of the interventions at least included a combination of knowledge and skills, illustrating that these two focus domains appeared the most important in the current interventions. This relates to another finding. Namely, the majority of interventions was based on both theory and practice (78%), followed by interventions that were exclusively practice-based (18%) or theory-based (4%).

4.2.1. RELATIONS BETWEEN CONTENT AREAS AND FOCUS DOMAINS

Concerning the content areas that were addressed, it appeared that interventions oriented at parent involvement mostly focused on knowledge and skills (25%) or knowledge, skills and attitudes (25%). Regarding child development the majority of interventions focused on knowledge, skills and attitudes (30%) or knowledge and skills (16%). A total of 20% of the interventions was targeted at improving overall classroom quality included all five focus domains. Another 20% focused on knowledge, skills and attitudes (20%) or knowledge and skills (13%). Overall, the results show that interventions aimed at child development had a stronger focus on attitudes compared to interventions aimed at parent involvement. Interventions targeting overall classroom quality more often took a comprehensive approach involving all focus domains.

For interventions aimed at diversity and inclusiveness a focus on knowledge, skills and attitudes was also very common. Box 2 below describes an example from Norway that targeted knowledge, skills and attitudes in an intervention aimed at cultural diversity and multilingualism.

BOX 2. CASE STUDY NORWAY: COMPETENCE MEASURES PROJECT

An example of an intervention that combines a focus on cultural diversity as well as multilingualism is the Competence Measures Project. This intervention addresses knowledge, skills and attitudes and uses a combination of all three PD strategies to do so. Moreover, the intervention not only targets kindergarten employees at the municipality but addresses the University and University college (UUC) sector as well, by creating arenas for cooperation between the UUC sector and the kindergartens.

Goal

The background for initiating this project has been The Norwegian Ministry of Education and Research`s aim to reduce inequality in the Norwegian society through developing an educational system that contributes to social cohesion. The aim of the project has been to contribute to cooperation on the development of systems designed to strengthen kindergarten staff competence in language stimulation and multicultural pedagogy. The focus on language stimulation and multicultural pedagogy is part of a government initiated competence initiative to implement the Framework Plan for the kindergarten's content and tasks. Moreover, the project aims to strengthen the UUC sector as competence providers. Lastly, the project also entails attitudinal changes and awareness-raising processes that have occurred as a result of competence enhancement.

Method

The intention behind the project has been to give the participating kindergartens frequent professional and theoretical input, while they get the opportunity to spread new knowledge within the staff and implement new knowledge in practice in the kindergartens. Through thoughtful organization of the resource groups in the participating kindergartens, the competence project has had a wide out-reach in the staff, as both centre managers, pedagogical leaders and assistants in the kindergartens have had the opportunity to participate in the competence measures project. A total of 249 kindergartens from all 19 Norwegian counties participated in the project. The structure of the implementation comprised training, group discussions and supervision. Each semester contained one county meeting, consisting of theoretical courses provided by Universities or University Colleges. The participating kindergartens developed and implemented interventions, focusing on language stimulation and multicultural pedagogy in their own kindergartens. Three network meetings where conducted, where participants shared their experiences with the implementation of their interventions and were supervised by professionals from the UUC sector. The UUC sector in this project thus provided theoretical knowledge through courses on language stimulation and multicultural pedagogy for the kindergartens and the kindergartens provided experience and insights from practice, which in turn can support the UUC sector to provide more practice based education in the future.

Lessons from the Competence Measures Project

The kindergartens that were involved in the intervention emphasize that in addition to the professional and theoretical input, they have also found it useful to participate in networks with other participating kindergartens. Participation in kindergarten networks is stated to have given the participating kindergartens the opportunity to exchange experience, reflect and establish contact with other kindergartens, from which they can benefit also on other occasions. Based on the evaluation of the project, the researchers believe that it is more likely to track effects on changes in practice and strengthening of education services at different levels through long-term and systematic competence initiatives.

4.2.2. RELATIONS BETWEEN CONTENT AREAS AND THEORY OR PRACTICE

Across all content areas interventions based on both theory and practice were the most common (ranging from 60% for interventions focusing on parental involvement and up to 85% for diversity in general), followed by practice-based (ranging from 12% of interventions focusing on multilingualism up to 32% on classroom quality) and hardly solely based on theory (ranging from 3% of interventions focusing on classroom quality up to 10% on parent involvement).

Although the vast majority of interventions was theory- and practice-based (78%), there appeared some different patterns depending on the focus domain. For the interventions that were both theory- and practice-based, this concerned a focus on knowledge and skills in 29% of the cases and included an emphasis on attitudes as well in 27% of the cases, whereas in 11% of the cases this involved the addition of beliefs as well. For the practice-based interventions this concerned an emphasis on knowledge, skills and attitudes in 40% of the cases and included a focus on beliefs as well in 20% of the cases. For the interventions that were theory-based this concerned a focus on knowledge only (30%) or knowledge and skills (30%). Overall, the results show that a combination of theory and practice was most common. However, targeting attitudes and beliefs more often concerned interventions that were merely practice-based.

4.3. PROFESSIONAL DEVELOPMENT STRATEGIES AND DELIVERY MODES

Three main professional development strategies were distinguished: training, coaching and reflection. Of the 81 interventions, 85% used some type of training as a PD strategy. Reflection was used in 73% of the cases, followed by coaching with 46%. The majority of the interventions combined one or more of these strategies. A single strategy was used in only 31% of the interventions (training 22%, coaching 3% and reflection 6%). Over a third of the interventions (38%) combined all three strategies. Of the interventions that combined two out of three strategies (28%), the combination of training and reflection is mostly used (24%) compared to the combination of coaching with reflection (4%) or with training (1%). The PD strategy of two interventions (3%) was unknown. Overall, it appeared that a combination of all three PD strategies was the most common across interventions (38%), followed by a combination of training and reflection (24%) and merely training (22%).

Interventions were also examined regarding their delivery modes. Two types of delivery modes were distinguished: *face-to-face vs. online* and *individual vs. team-based*. Of the 81 interventions 53% was delivered face-to-face, 37% combined a face-to-face and online approach, and 10% used solely an online approach. Hence, the face-to-face mode (as the only delivery mode or in combination with online mode) was noticeably more often used (90%) than the online mode (as the only delivery mode or in combination with face-to-face mode; 47%). Moreover, more than half of the interventions (63%) used a single type of delivery mode (face-to-face or online). Regarding individual vs. team-based PD, the vast majority of the interventions included an individual PD (86%) component. In 42% of the cases this involved individual PD only, whereas in 44% of the interventions this involved a combination of individual and team-based PD. Only 14% of the interventions focused exclusively on team-based PD.

When comparing the PD strategies in relation to the chosen delivery modes, some patterns could be distinguished. First, some patterns appeared to be related to the number of PD strategies that are used and the delivery modes. For instance, as the number of PD strategies increases, there is an increasing use of a combination of both face-to-face and online delivery (24% one strategy vs 26% two strategies and 55% three strategies). In addition, team-based PD or a combination of individual and team-based PD more often used a larger number of PD strategies (33% one strategy vs 41% two strategies and 84% three strategies). An example of an intervention from Portugal that is in line with the observed patterns can be found in Box 3.

BOX 3. CASE STUDY PORTUGAL: MODERN SCHOOL MOVEMENT

The Modern School Movement (Movimento Escola Moderna) is a pedagogical association of teachers and other professionals working in the field of education. The intervention does not have a fixed program regarding duration or intensity of the program, as the main purpose is the permanent training of teachers in a cooperative self-training system. Therefore, the intervention entails all three professional development strategies, is delivered both face-to-face and online and uses a combination of individual and team-based PD.

Goal

MEM has been developing new proposals for school education and democratic development. Its pedagogical model is focused on educational cooperation. Students and teachers negotiate activities and projects to be developed around the programmatic contents, based on the interests and knowledge of the students and on the cultural context of the communities. Teachers share with their students the management of time, resources and contents (for instance, using piloting instruments such as calendars and task maps). The goal is to promote the involvement and co-responsibility of the students in their own learning, as well as their democratic and socio-moral development. MEM aims to build inclusive responses in schools by promoting and valuing class heterogeneity as an educational value.

Method

MEM has an annual training plan with systematic actions integrated in cooperative self-training structures and in a framework of on-going training of professionals. Cooperative self-training structures include cooperative groups, monthly pedagogical meetings, annual congress and national training meetings. Continuous training is also promoted through the provision of a bulletin and of a resource centre with literature.

MEM offers accredited training (courses, workshops, internships and projects) for teachers for career progression purposes within the scope of the national continuous training system. MEM training model is based on a philosophy of critical reflection on the practice. Training sessions in schools (e.g. on pedagogical differentiation) may also be offered by teachers of these schools who are MEM trainers with the goal of promoting educational quality, school success and an inclusive perspective in schools. MEM also has protocols with several municipal councils and with ten Portuguese higher education institutions. These protocols may include: collaboration in training activities, research and intervention projects; scientific-pedagogical support to on-going teacher training programs; and cooperation in the development of services in the community (particularly to promote inclusion and educational success and to decrease school absenteeism).

Lessons from Modern School Movement

Though MEM consists of several practices for supporting on-going professional development, it does not include a defined methodology. Therefore, the overall conclusion is that MEM essentially implies a bottom-up approach, since it provides alternative pedagogical models developed by teachers for other teachers. However, at the same time, it plays a fundamental role in the dissemination of ideas and ways of critical reflection on teacher's work. These are disseminated in the Portuguese educational culture and create the opportunity to introduce changes in the political agenda in the contemporary school. This combination of a bottom-up and top-down approach of PD allows for maximal adaptation to the local context with teachers deciding on their desirable outcomes using their autonomy within the existing hierarchical structure.

To summarize, training is the most frequently used strategy in promising PD interventions, both as a single strategy as well as in combination with other strategies. Coaching on the other hand occurs predominantly in more comprehensive approaches that include all three strategies, but is hardly used as a single strategy (8%) or in combination with only one other strategy. Further, it seems that when the complexity of the intervention – in terms of the number of PD strategies – increases, interventions more often use a combination of delivery modes rather than just one. Overall, it appeared that a combination of all three PD strategies was the most common across interventions (38%), followed by a combination of training and reflection (24%) and merely training (22%).

4.3.1. RELATIONS BETWEEN STRATEGIES AND DELIVERY MODE

Of the 69 training interventions, the face-to-face delivery mode was used most frequently (57% vs. 7% online and 36% combination). The use of face-to-face delivery was the highest for interventions using training as a strategy in comparison to coaching or reflection. If training was the only PD strategy that was used, only 33% of the interventions used a form of online delivery (both solely online or a combination of face-to-face and online). None of the 37 interventions that involved coaching as a PD strategy used an online delivery mode. However, the number of interventions that used a combination of face-to-face and online (54%) was the highest among the coaching interventions compared to interventions involving training (36%) or reflection (42%). Half of the 59 interventions (48%) that used reflection as a PD strategy was delivered face-to-face. However, of the interventions that used reflection as a single PD strategy only 20% was delivered solely face-to-face whereas 60% of these interventions was delivered only online, compared to 0-16% for any other (combination of) PD strategies.

Individually oriented PD was most often reported in interventions that included training (45%), whereas coaching more often involved some form of team-based PD (78%). For interventions using reflection as strategy, a combination of individual and team-based PD was used in 51% of the cases. However, if the strategy encompassed a combination of reflection and training, most of the interventions focused on individual PD (63%).

Overall, interventions involving training were most often delivered face-to-face, whereas interventions including coaching mostly used a combination of face-to-face and online and interventions concerning reflection most often used an online mode of delivery. Further, we can conclude that training, whether or not in combination with reflection, appeared to be stronger individually focused, whereas coaching and reflection as single strategy more often included a team-based component.

4.3.2. RELATIONS BETWEEN DELIVERY MODES

Besides a comparison between PD strategies and delivery modes, it is also worthwhile to investigate the relations between the two types of delivery modes (face-to-face vs online and individual vs team-based). Both individually targeted interventions and team-based approaches were provided face-to-face in half of the cases and in the other half concerned an online mode of delivery. For combinations of individual and team-based interventions 37% was provided face-to-face and the same percentage was delivered online. An example of an intervention from England that used an online delivery mode and is focused on a combination of individual and team-based PD can be found in Box 4. Looking at interventions delivered both face-to-face and online, the combination of individual and team-based PD was the most common approach (57%) followed by individual PD and team-based PD used in respectively 30% and 13%.

BOX 4. CASE STUDY ENGLAND: EARLY YEARS E-LEARNING

The E-learning Increase Wellbeing and inclusion in Early Years has been designed for practitioners who work in state-run or independent nursery schools, private or voluntary nurseries, faith-based early years settings, pre-schools, out-of-school clubs, holiday play schemes and/ or children's homes. In contrast to many other interventions, the delivery mode of the intervention is solely online. Though the focus is primarily individual, the course gives access to a discussion forum (knowledge hub) as well, allowing for more team-based PD as well.

Goal

The e-learning module has been designed around the principle that understanding the importance of wellbeing is crucial for achieving inclusive outcomes. The overall goal of the intervention is to improve quality, inclusion and flexibility of provision within early years settings. The intervention aims to achieve this through reflective learning and community engagement, as well as by helping professionals better understand their own wellbeing and awareness on inclusion. In addition, the goal of the Early Years E-learning is to increase parent's confidence to close the attainment gap by supporting them to create a positive home learning environment and by empowering families to help themselves break generational cycles of deprivation.

Method

Throughout the course participants are required to access and complete their online learning modules, undertake work-based learning assignments and document their learning journey via reflective diary entries. Each one of the eight modules contains the latest messages from research. The information, tasks and homework must be completed before moving on to the next module. It is anticipated that each module will take 2-3 hours to complete (except for module five which may take slightly more).

Users are also welcomed to participate in the 'Knowledge Hub' – which has been identified as an inclusive community, which allows opportunity to regularly interact with fellow practitioners and an eTutor. Support from an eTutor is available – if questions or unexpected circumstance arise. The eTutor is responsible for monitoring and advising on practice progress; understanding learning outcomes; giving support and guidance; and signposting or identifying when additional support or guidance on more specialist services is required.

Three months after having completed the course, participants are invited to receive a short Refresher Module – designed to remind practitioners of the key messages of wellbeing inclusive practice and to measure the changes made to practice as a result of accessing the resource.

Lessons from Early Years E-learning

Participants of the e-learning have access to many resources (discussion forums, wellbeing scales, learner action plans, etc.) and the solely online delivery mode of the course allows for maximum flexibility regarding access of these resources, both in terms of time and location. However, this also implies that the majority of interaction between professionals is asynchronous. In addition, his course mainly promotes planning opportunities, (where practitioners can design and test their attempts to engage with families/ communities), which are designed to be reflected upon afterwards, suggesting the emphasis on individual motivation for the self-led learning of professionals. This should be considered, as it may affect the impact of individually accessed course content.

Concluding, regarding the use of single delivery modes (face-to-face or online), the most common focus is on individual PD, followed by a combination of individual and team-based PD and then solely team-based PD. A combination of face-to-face and online delivery modes was more often reported for interventions focusing both on the individual and the team.

4.4. RELATIONS BETWEEN THE DIFFERENT COMPONENTS

As shown in the conceptual model in Figure 1, the components of *what*, *who* and *how* show overlap. In the following sections, this overlap will be further explored. First, we will describe results regarding the relationship between the content with the characteristics of learners. Second, we will investigate the relation between the content with the PD strategies and delivery modes on the other hand. Lastly, the PD strategies and delivery modes in relation to the characteristics of learners are explored.

4.4.1. RELATIONS BETWEEN CONTENT AND CONTEXT

The following section entails the results regarding the relationship between the content of the interventions (five different focus domains and the theory vs. practice basis) and the six characteristics of the context (professionals, institutions, families, organisation, implementation and geographical scope). The relation with specific content areas – though part of the *what* – will be discussed in a separate section in the presentation of the findings concerning interventions focused at diversity, inclusion and/or multilingualism.

4.4.1.1. FOCUS DOMAINS AND CONTEXT

Regarding the professionals, about 28% of the interventions targeted at teachers concerned knowledge and skills, 31% focused on attitudes as well and another 10% also included beliefs. For interventions aimed at both teachers and leaders or managers 10% was focused at knowledge and skills, whereas 30% targeted attitudes as well, and another 20% included a focus on beliefs as well.

There appear some differences in focus depending on the type of institutions the professionals work in. Interventions for professionals working in ECEC centres or NGO's were mostly focused on knowledge and skills (29% and 40% respectively), whereas interventions for professionals working in primary and secondary education were mostly aimed at knowledge, skills and attitudes (28% and 34% respectively). Of all types of institutions, interventions targeting professionals working in social services more often included a focus on knowledge, skills, attitudes and beliefs (20%) compared to all other institutions, except NGO's.

There also appeared some patterns related to the families and children the professionals worked with. Interventions that were aimed at all children mostly focused on knowledge and skills (29%) or knowledge, skills and attitudes (29%). Although the majority of the interventions were focused on all families and children, some of the interventions were focused on professionals working with specific target groups of children or families. Of the interventions targeted at professionals working with second language learners, 43% was focused at knowledge and skills and another 43% was aimed at knowledge, skills, beliefs and attitudes as well. Concerning professionals working with Romani families, 60% of the interventions were focused on knowledge, skills and attitudes.

A different pattern was found when looking at the level of the professional (i.e., a professional working directly with children or a manager/leader). Interventions focused at knowledge and skills or knowledge, skills and attitudes mostly targeted professionals (65%-70%) compared to the level of managers or a combination of both levels. However, when a focus on beliefs was also included in the intervention, it was more often targeted at both professionals and managers (25%-40%), followed by professionals only (13%-40%).

Regarding the implementation of the intervention, different patterns emerged depending on whether the responsibility for the implementation was attributed to an internal person (part of the staff), an external person (e.g., external trainer or specialist) or a combination of the two. For interventions implemented by an internal person,17% targeted knowledge and skills, 25% aimed at knowledge, skills and attitudes and another 17% was focused on knowledge, skills, attitudes and beliefs. For interventions implemented by an external person, 31% was aimed at knowledge and skills, another 31% was targeted at knowledge, skills and attitudes and only 7% was focused on knowledge, skills, attitudes and beliefs. For the combination of internal and external experts, 27% of the interventions was focused at knowledge and skills and 31% was aimed at knowledge, skills and attitudes.

Lastly, the geographical scope of the intervention was associated with differences in the focus domain of the intervention. Interventions at the local level mostly focused on knowledge and skills (44%) and knowledge, skills and attitudes (31%). Regional interventions mostly concerned knowledge, skills and attitudes (38%) and knowledge and skills or knowledge, skills, attitudes and beliefs in 19% of the cases. National interventions mostly concerned knowledge, skills and attitudes (25%) or knowledge and skills (19%).

To sum up, the results illustrate that interventions targeted at both teachers and leaders more often addressed attitudes and/or beliefs in addition to knowledge and skills compared to interventions targeted on teachers only. It also appeared that a focus on attitudes was less common for professionals working with the youngest children and in NGO's compared to interventions aimed at professionals working in primary or secondary education. Further, the interventions in social services more often included an emphasis on beliefs as well.
The findings show that interventions that were targeted at professionals working with a specific target group, more often included a focus on attitudes, besides knowledge and skills. A stronger focus on beliefs, in addition to knowledge, skills and attitudes, more often occurred in interventions aimed at both the professionals and managers, compared to interventions for professionals only. Interventions that were implemented by an internal person more often concerned a focus on knowledge, skills, attitudes and beliefs compared to implementation by an external person or a combination of the two. Lastly, local interventions more often focused only on knowledge and skills, whereas regional or national interventions more often targeted attitudes as well.

4.4.1.2. THEORY OR PRACTICE AND CONTEXT

A combination of theory and practice based PD was the most common in interventions for teachers (85%) and teachers and leaders (80%), whereas this was slightly less often the case for interventions targeted at paraprofessionals or paraprofessionals as well as teachers (both 50%). Solely practice based PD was noticeably less common for teachers and teachers combined with leaders (10% and 20% respectively), but concerned interventions aimed at paraprofessionals and teachers in half of the cases. Only three interventions were solely theory-based of which two targeted teachers and one was aimed at paraprofessionals.

All types of institutions shared the same pattern of interventions being predominantly based on both theory and practice (ranging from 60% in NGO's up to 78% in primary schools), followed by practice based PD (ranging from 20% in primary schools up to 40% in NGO's) and theory based in primary schools (12%) and secondary schools (4%).

For practitioners working with all kinds of families, except Romani, the most common PD was based on both theory and practice (ranging from 68-100% depending on the target group). The second most frequent type of PD was practice-based. However interventions for practitioners working with Romani families were involved most often in practice based PD (60%) and then in PD combining theory and practice (40%).

Furthermore, 40% of the interventions that were both theory- and practice-based was implemented by an external person, followed by a combination of an internal and an external person (34%) and an internal person (26%). About half of the practice-based interventions were implemented by a person within the organisation, followed by one third of the interventions implemented by both an internal and external person. The two theory based PD interventions were delivered by an external expert.

Lastly, regarding the geographical scope, the interventions that were practice-based or a combination of theory and practice were mostly implemented at a national level (33% and 41% respectively) and then equally often at the regional and local level. The few theory-based interventions concerned both the national and local level.

To conclude there seems to be a pattern that for interventions with a theoretical base an external person is involved in the implementation of the intervention. Moreover, interventions with a theoretical component more often concerned primary and secondary schools and involved teachers as well as managers. Interventions that were more practice-based were more often provided in NGO's, targeted at paraprofessionals and focused on professionals working with Romani families.

4.4.2. RELATIONS BETWEEN STRATEGIES, DELIVERY MODES AND CONTENT

The following section entails the results regarding the relationship between content of the interventions (five focus domains and theory vs. practice) with the three PD strategies (training, coaching and reflection) and the two delivery modes (face-to-face vs. online and individual vs. team-based). The relation with some of the content areas is addressed as well, but content areas will be discussed more in depth in a separate section later on, when we analyse the overall features of interventions focused at diversity, inclusion and/or multilingualism.

4.4.2.1. CONTENT AND STRATEGIES

Firstly, focus domains were explored in relation to the PD strategies that were used. There appeared some patterns related to the focus and the strategy used for PD. For instance, 30% of the interventions targeted at knowledge and skills used a 'training only' approach, 25% involved a reflection component as well and another 35% included all three strategies. For interventions that also focused on attitudes, besides knowledge and skills, the majority of interventions included training, coaching and reflection (39%) and 22% involved 'training only' and another 22% included training and reflection. For the interventions focusing on knowledge, skills, attitudes and beliefs, 60% used a combination of training, coaching and reflection as PD strategy.

Several patterns emerged when looking at the topic of the intervention and the PD strategies. Across all topics of the interventions the combination of training, coaching and reflection was the most commonly used form. However, for interventions concerning diversity, inclusiveness and/or multilingualism this occurred the least often (34%), whereas for parent involvement and child development this applied to 45% and 49% of the cases respectively and for interventions aimed at overall classroom quality this was the most frequent with 57%. For interventions focused on classroom quality the second mostly used strategy concerned training and reflection (37%), whereas the usage of training and reflection or only training was roughly equal for the other topics.

Further, there appeared some patterns related to the topic of the intervention and the number of PD strategies that are used (covering a wider number of strategies as it includes other less frequently used strategies as well, such as 'reflection only'). For instance, interventions focused on child development more often used a combination of PD strategies (36% one strategy compared to 44% two strategies and 55% three strategies). A somewhat similar pattern was found for improving classroom quality, although there were no differences between the use of two or three strategies (24% one strategy compared to 44% two strategies and 45% three strategies). In contrast, if interventions were aimed at diversity, inclusiveness and/or multilingualism, a combination of PD strategies was less likely (80% one strategy compared to 65% two strategies and 61% three strategies). With regard to parental involvement, no differences were found.

A combination of theory- and practice-based was predominant in all the interventions regardless of the (combinations of) PD strategies that were used (78%). However, using a practice-based approach occurred relatively frequently in interventions using training, coaching and reflection as strategies (19%) and in interventions using a 'training only' approach (17%). Interventions using an only theory-based approach were very uncommon (4%) and included training or training in combination with reflection as PD strategies.

To summarize, the findings show that interventions including a focus on attitudes and/or beliefs, besides knowledge and skills, more often used reflection and coaching as more dynamic forms of PD. Across all interventions a focus on training, coaching and reflection was the most common and for interventions focused at classroom quality also training and reflection was frequently used. When looking at the full range of PD strategies that could be used and the combinations of strategies it appeared that the use of all three strategies was most common in interventions focusing on classroom quality and child development. For interventions focusing on diversity, inclusiveness and multilingualism a single strategy was most common compared to the other topics. Lastly, the vast majority of interventions focused on a combination of theory and practice, although solely practice-based approaches were also used in trainings or interventions incorporating training, coaching and reflection.

4.4.2.2. CONTENT AND DELIVERY MODES

First, focus domains were explored in relation to the delivery modes. Of the interventions focusing on knowledge and skills, 60% used a combination of face-to-face and online delivery modes compared to 25% face-to-face and 15% online only. Interventions that also included a focus on attitudes or beliefs and attitudes more often concerned face-to-face delivery modes (61% and 50% respectively).

Concerning the level of the organisation that was targeted, it appears that individual PD mostly concerned knowledge and skills (29%), followed by a focus on knowledge, skills and attitudes (26%). For team-based PD the focus was mostly on knowledge and skills (27%) or with the addition of beliefs (27%) and/or attitudes (18%). A combination of individual and team-based PD more often concerned a focus on knowledge, skills and attitudes (33%) compared to knowledge and skills (19%) or knowledge, skills, attitudes and beliefs (14%).

For interventions focused at either parental involvement or improving classroom quality around half was delivered face-to-face, whereas the use of face-to-face delivery was somewhat higher when interventions addressed child development (62%) or diversity, inclusiveness and/or multilingualism (64%). The second common type concerned the combination of face-to-face and online, which was highest for interventions focused on overall classroom quality (43%) and parent involvement (38%) and lowest for interventions aimed at child development and diversity, inclusiveness and multilingualism (30% and 29% respectively). Online delivery only was the least common and occurred most frequently in relation to parent involvement (15%) and least frequently for interventions on classroom quality (7%).

Overall, individual PD or a combination of individual and team-based PD was the most common across all interventions. However, few differences emerged depending on the topic. For interventions focused at overall classroom quality and child development a combination of individual and team based PD were the most common (47% and 46% respectively) and also solely team-based PD was more common for these two topics compared to the other topics (20% and 17% respectively). Box 5 below illustrates an intervention from Greece focusing on both the individual and team-level using a bottom-up approach.

BOX 5. CASE STUDY GREECE: ITPL

The International Teacher Leadership Project (ITLP) is an example of an intervention that aims to improve classroom quality by addressing professionals' knowledge, skills and attitudes. The intervention is a bottom up approach of PD at both the professional level as well as the organizational level (based on the community learning approach) and uses teachers' initiatives to develop shared leadership within the school. The Greek version of the ITLP places particular emphasis on professional development portfolios and educational leadership.

Goal

The program focused on the teachers and their ability to exercise individual leadership in their school, in a sense that they undertake innovative development initiatives and collaborate with other teachers and professionals affecting their school. The final goal of the program was experimentation in planning, organizing, implementing and evaluating innovative programs in the classroom, which to a large extent was based on teachers' initiatives as well as formulation of their professional development portfolios using documentation techniques.

Method

There were 8 key elements for the G-ITL with an emphasis on the training tools, a new form of support-training for teachers, as well as on the roles of the members of the support team. These elements could be described in 8 axes:

1. Adaptation or creation of school-based training tools for the professional development of teachers;
2. A "tutor" that supported teachers in planning and organizing their programs as well as in structuring their portfolios for the school-based professional development. Each school was assigned two tutors and these tutors formed a support team to help further development of professional networks.
3. Providing possibility for collective and individual growth focus and support;
4. Teachers, individually or in groups, were encouraged to develop initiatives for visits in different schools;
5. A Moodle platform for blended learning with all the training materials posted (power point, photos, texts, tools, etc.),
6. Networking among participating schools, as well as wider networking with others schools from the international network;
7. Portfolio of professional development;
8. Academic dynamics and certification which could be used to certify corresponding modules in pre or post graduate courses, depending however on the quality assurance of the program.

The intervention consists of four well organized and carefully prepared laboratories per year that lasted for two to three hours each. These were carried out in three groups of schools, on working days and immediately after the working hours. There were also two five-hour workshops during the plenary meeting of the volunteer groups on Saturdays (one in the middle and one at the end of each school year). At the same time, members of the support team visited the schools when invited, while there was communication via telephone and electronic mail for issues that arose in a group or its members in schools.

Lessons from ITPL Greece

A key element in the intervention is how the use of a bottom up approach in combination with an overarching support team. This allowed for a balance in very well adjusted individual professional development as well as a more overall basis for team-based development through collaboration and networking among teachers and schools. Teachers formulating their professional development portfolios increased their leadership skills and took control of their own PD in collaboration with other teachers and professionals. At the same time they contributed to the improvement of school effectiveness addressing issues of high priority according to local/individual needs and circumstances.

The combination of theory and practice was most common across all interventions, regardless of whether the intervention had a face-to-face, online, or a combination of face-to-face and online delivery mode. However, a solely face-to-face delivery mode was the most common for interventions that were either completely theory-based (all interventions) or solely practice-based (80%). A combination of online and face-to-face was most common for interventions focusing on theory and practice (90%).

There appeared different patterns related to whether the intervention was individual or team-based. Individual PD was delivered in all interventions that were theory-based, in 43% of the theory- and practice-based interventions and in 27% of the practice-based interventions. Team-based PD targeted practice-based or a combination of theory and practice equally often, whereas a combination of individual and team-based PD mostly concerned a combination of theory and practice.

Concluding, a face-to-face delivery mode occurred more frequently in interventions targeting attitudes in addition to knowledge and skills and in interventions aimed at the topics of child development and diversity, inclusiveness and multilingualism. Further interventions that were either theory-based or practice-based more often concerned a face-to-face delivery mode, whereas interventions aimed at both theory and practice more often concerned a combination of face-to-face and online modes of delivery.
Overall, individual PD or a combination of individual and team-based PD was the most commonly used form of delivery. However, it appeared that interventions aimed at the topics of classroom quality and child development used an only team-based approach more often than interventions targeting other topics. Furthermore, there appeared a pattern in which individually based PD more often contained a theoretical element and was more often provided face-to-face.

4.4.3. RELATIONS BETWEEN STRATEGIES, DELIVERY MODES AND CONTEXT

The following section entails the results regarding the relationship between the three PD strategies (training, coaching and reflection) and the two delivery modes (face-to-face vs online and individual vs team-based) with the six characteristics of learners and context (professionals, institutions, families, organisation, implementation and geographical scope).

4.4.3.1. CONTEXT AND STRATEGIES

Nearly half of the interventions solely focused on teachers, but this focus seems to be related to the number of PD strategies that were used. Of the interventions that used all three types of PD strategies, only 29% was merely focused on teachers (compared to 56% for two strategies and 70% for one strategy). In addition, interventions that used all three types of PD strategies also included paraprofessionals more often (39% for three strategies compared to 20% for two strategies and 13% for one strategy). However, within these interventions paraprofessionals were always included in combination with teachers (and leaders). Lastly, if all types of professionals were included, a combination of three PD strategies was used most often (19%).

Interventions that included some form of training focused most often at only teachers (51%) or paraprofessionals (50%), with even 67% of the ‘training only’ interventions focusing on solely teachers. After teachers, training interventions were most often aimed at both teachers and leaders. Interventions concerning paraprofessionals as well as teachers showed a larger variety

in PD strategies that also involved coaching or reflection with a combination of training, reflection and coaching as the most common form. An intervention from Italy is presented in Box 6 as an example of how training could also benefit paraprofessionals. Lastly, coaching was the only PD strategy where interventions focused equally on teachers (32%) and teachers with leaders (30%).

BOX 6. CASE STUDY ITALY: LIMERIC

In contrast to many other interventions, the Language Meets Intercultural Competencies project (LIMERIC) was developed to strengthen the competences of paraprofessionals. The intervention is a non-formal blended learning method in which both face-to-face and e-learning strategies were used. The overall intervention consisted of 10 modules that were tested and implemented in four European countries (Austria, Switzerland, Turkey and Italy). Italian paraprofessionals (childminders) took part in modules 6 (intercultural behaviour) and 7 (culture and territory).

Goal

The aim of the project was to develop a non-formal training programme with blended learning methods for adults working in the extra-institutional early childhood education in order to strengthen their competences in the field of fostering language development and understanding intercultural issues. Considering that the target group consists of paraprofessional who do not belong to institutions/organizations and often work alone, the focus of this programme was on individual PD. However, the face-to-face learning sessions and some of the e-learning activities were implemented as group activities in order to support dialogue and discussion among participants.

Method

The LIMERIC training programme consisted of ten modules, each comprising four e-learning units (200 minutes) and six face-to-face units (300 minutes). Module 6 (intercultural behaviour) focused on behaviours and attitudes that facilitate intercultural dialogue and allow the deconstruction of stereotypes. An ethos which recognises different points of view and nurtures an understanding of the real needs, development and growth opportunities inherent to the educational relationship (with children, families and within the social context) was introduced in this part of the training. Module 7 (culture and territory) focused on childhood as the starting point of possible positive connections among different cultures in order to build innovative conditions for the development of equal opportunities and reciprocal recognition. The training was provided by external trainers. Several resources were developed and combined into a handbook to support the course trainers. The authors suggest that there is at least one month between modules in order to allow the participants to implement what they have learned.

Lessons from LIMERIC

Strengths of the LIMERIC project lie within the relevance, flexible delivery mode and transferability. Evaluation of participants' feedback showed an extremely positive response to the pilot as the majority of the participants were satisfied and deemed the modules highly relevant to their daily work. Moreover, the combination of a face-to-face and online delivery mode makes the training quite flexible and suited to meet the needs and constraints of paraprofessionals that are generally dispersed across the region and also have child care obligations. Lastly, the development of the handbook can be considered transferable as it provides a blueprint for organizing a training course to strengthen the competences of paraprofessionals about language development and intercultural issues.

A possible barrier of the intervention regards participant commitment during the e-learning activities. The activities were quite time consuming and most of the activities required some form of reflection (with other participants) based on tasks that the participants were asked to do. Participants' commitment/engagement and tutor's ability to motivate and guide participants through this part of the course are thus key elements in order to ensure that this part of the training is as relevant as the face-to-face one.

The professionals targeted in the interventions worked most often in primary schools, followed by secondary schools, ECEC centres/kindergartens and social services/NGO's. No patterns or differences regarding these institutions could be distinguished except for the secondary schools. Interventions targeting secondary schools most often used only one strategy (75%) instead of a combination of two (61%) or three strategies (45%). Regarding the families they work with, the inventory showed that if specific families were targeted, more often a single PD strategy was chosen (44% one strategy vs 30% two strategies and 26% three strategies). No differences were found regarding families for the different types of PD strategies.

Furthermore, for interventions that included all three types of PD strategies, interventions were less often solely implemented at the professional level (45% compared to 64-65% for one or two strategies). The management level (either direct managers or higher level managers) was included in 45% of the cases. Coaching was the only PD strategy where the majority of the interventions targeted multiple levels of the organisation (57%) in comparison to training (43%) and reflection (44%) strategies. The combination of levels mostly consisted of the professional level with the direct management level. Lastly, for interventions using reflection a focus on teachers only (professional level) was used most (44%) followed by a combination of teachers and leaders (25%).

For interventions that focused on one strategy, the person responsible for the implementation mostly concerned an external person (44%), followed by the combination of an external and internal person (36%). Interventions using two strategies were either implemented by an external person (38%) or someone with the organisation (38%). For the most comprehensive interventions using three strategies a combination of an external person with someone within the organisation was the most common (39%), followed by only someone within the organisation (35%). In case of a 'training only' approach this was mostly implemented by either and external person (44%) or a combination of an external and internal person (39%). For the combination of training and reflection the person responsible for implementation was someone within the organization in 44% of the cases, whereas this concerned an external person in 39% of the interventions. For interventions focused on training, reflection and coaching the person responsible for implementation was either someone within the organisation (35%) or a combination of an internal and external person (39%).

Finally, some patterns were found between the number of PD strategies and the geographical scope of the interventions. Interventions using one PD strategy more often concerned local initiatives (40%), whereas the use of all three PD strategies more often concerned national interventions (50%). Lastly, 44% of the interventions that were implemented locally only used training as a PD strategy.

Overall, the findings show that the use of strategies differed depending on aspects of the context. The use of a single PD strategy is more likely for interventions that are more targeted or narrower in terms of focus. For instance interventions targeted at teachers or implemented at a local level, more strongly relied on a single strategy, often training. Moreover, training as single strategy more often concerned teachers as the only professionals (not involving managers) and was mostly implemented by one person, either internal or external. Coaching, on the other hand, mostly targeted professionals as well as managers and included someone from the organisation who was responsible for the implementation (although sometimes with an external person as well). Thus, more comprehensive programs in terms of the professionals involved, the lack of a specific target group or a broader geographical scope more often used a combination of PD strategies.

4.4.3.2. CONTEXT AND DELIVERY MODES

Face-to-face interventions were the most common for teachers (61%) and teachers and managers (55%) in comparison to a combination of face-to-face and online approach (26% and 35% respectively) and solely online (13% and 10% respectively). Regarding the interventions involving both teachers and paraprofessionals, the pattern differed, as the majority of cases was delivered by a combination of face-to-face and online (70%) and less often solely face-to-face (30%). In terms of interventions that solely included paraprofessionals or that addressed all types of professionals, there was a balance between face-to-face and combination of face-to-face and online mode (50% and 44% respectively).

Interventions involving ECEC centres, kindergartens, primary schools and secondary schools were most often delivered face-to-face (ranging from 47% to 50%), followed by a combination of online and face-to-face (ranging from 38% to 41%). For interventions concerning social services and NGO's, this pattern differed slightly as a combination of online and face-to-face approach was the most frequent model (40% and 60% respectively), whereas the face-to-face and online mode as were equally represented.

The face-to-face mode was most common for professionals working with generally disadvantaged, Turkish/North African, low-income and second language learners the face-to-face mode was the most common one (ranging from 67% to 100%). This tendency did not apply to the other groups. With regard to professionals working with Romani the interventions using a face-to-face or an online approach were equally high (40% of cases per delivery mode), whereas in terms of professionals working with the most heterogeneous group (all children and families) the most common delivery mode was the combination of online and face-to-face (47%), followed by solely face-to-face (45%) and online (7%).

The face–to-face mode was also most common for interventions targeted at professionals or professionals and managers (57% and 53% respectively), whereas the combination of online and face-to-face delivery was the most common for interventions targeting professionals and volunteers together (60%), as well as professionals, managers and higher level manager (100%). For face-to-face interventions the person responsible for implementation more often concerned someone within the organization (58%) as compared to an external person (48%), whereas a combination of face-to-face and online was the most frequent delivery mode for interventions that were implemented by both an internal and external person (50%). Lastly, face-to-face interventions were the most common for national (53%) and regional interventions (59%), whereas a combination of face-to-face and online was most common for local interventions (53%)

Individual PD most often occurred when targeted at single types of professionals such as teachers (56%) and paraprofessionals (100%). In case of different types of professionals/levels a solely team-based approach (ranging from 15% to 40%) or a combination of individual and team-based were most common (50%). Some different patterns emerged depending on the institution the professionals worked in. Interventions for professionals working in kindergartens and secondary schools individual PD was used most frequently (43% and 47% respectively), followed by the combination of individual and team-based delivery (40% and 38% respectively). However, for professionals working in ECEC, primary school, social services and NGO's a combination of individual and team-based approach was most common (ranging from 47% to 80%)

Professionals working with Turkish, North African, low-income and Romani families were mostly taking part in individually based interventions (ranging from 67% to 80%), followed by a combination of individual and team-based PD (ranging from 20% to 33%). For professionals working with second language learners the individual approach was also most common, but followed by a team-based approach (57% and 29% respectively). Professionals working with all families or generally disadvantaged families used a combination of an individual and team-based approach in half of the cases, followed by an individual approach (37% and 34% respectively).

For interventions targeted at individual professionals (teachers or paraprofessionals), an individual approach was most common (56% and 100% respectively), however among combinations of different professionals a combination of individual and team-based PD was most common (50% to 56%). An example on an intervention from the Netherlands that is targeted at all levels of the organisation and uses a combination of both individual and team-based PD is presented in Box 7.

BOX 7. CASE STUDY THE NETHERLANDS: NVLU

The Now for later Utrecht (NVLU) project is a rather broad intervention that focuses on general PD of staff within the municipality of Utrecht by targeting all levels of the ECEC system in the municipality. In order to do so, a combination of more individual based and team based PD was used.

Goal

The main goal of the project is to provide children (age 2.5-6) in the city of Utrecht with the most optimal care and education. In order to achieve this, three sub goals were formulated. First, a citywide framework on high quality ECEC should be constructed in order to provide guidelines for professionals. Second, to ensure on-going professional development learning networks would be established, as life-long learning should be done together. Third, a rise in professionals' skills and knowledge at the individual level should benefit the overall ECEC quality and thus professionals would be provided with additional opportunities for individual PD (education).

Method

The project started in 2013 and was extensively funded till the end of 2016. In order to meet the project goal, three main activities were undertaken. First, a citywide quality framework was developed regarding 12 developmental goals to focus on in early childhood. This quality framework (Utrechts kwaliteitskader) was developed with experts within the field and is accompanied by an online platform that provides additional information on the framework, good practice videos and a forum for professionals to discuss their profession. Second, professional learning networks were established in which professional from different organisations focus on sharing and creating knowledge together, regarding a specific topic. Third, funds were made available for further professional development, varying from single workshops/lectures to enrolment in educational trajectories and college degrees. The online platform and the several learning networks are still operational.

Regarding the intensity of the intervention, the professionals within the networks meet on average once every two/three months. The intensity of the individual professional development varied widely, based on the different PD options professionals could choose from. Some professionals attended one or two master classes (usually two or three meetings with an external expert/trainer), whereas others received weekly coaching on the job and some enrolled in other educational trajectories obtaining college degrees.

Lessons from NVLU

The NVLU intervention shows an interesting mix of targeting general PD in early childhood by using a variety of PD strategies and delivery modes in order to address multiple content areas and focus domains by implementing the intervention simultaneously at all levels of the ECEC organisation within the city. At the local governmental level a citywide framework for ECEC quality was developed to guide professionals. At the organization/team level professional learning networks were implemented for professionals to continue learning from one another. At the individual level, professionals were offered the opportunity to follow several forms of education to enhance their professional knowledge and skills. It therefore illustrates how a more comprehensive approach can address multiple goals regarding professional development.

The person who was responsible for the implementation of the intervention differed depending on whether it was individual or team-based PD. Individual PD was mostly implemented by an external expert (48%) compared to someone within the organisation (21%) or a combination of an internal and external person (30%). In team-based PD either an internal person (45%) or a combination of an internal and external person (36%) was responsible, whereas a combination of individual and team-based PD was delivered by an internal, external or a combination of both equally often. Further it appeared that interventions that were implemented at the local level and regional level most often used an individual approach (56% each), whereas interventions at the national level were most often delivered using a combination of individual and team-based PD (59%).

To conclude, face-to-face delivery of PD was overall most common concerning teachers working in a school setting, whereas a combination of face-to-face and online was more common for professionals working in NGO's or social services or when a combination of professionals was targeted (e.g. teachers and paraprofessionals). Face-to-face was also most common for interventions aimed at professionals working with specific target groups, except Romani, whereas interventions focused at broader groups more often used a combination of face-to-face and online PD.

Further, individually based PD was most common for single groups of professionals (e.g. teachers or paraprofessionals), whereas a combination of individual and team based PD was more common when both professionals and managers were targeted. Individual PD was mostly implemented by an external expert whereas individual PD was either implemented by someone from the organization or jointly with an external expert. Lastly, interventions implemented at the local or regional level more often concerned individual PD whereas national interventions were more often a combination of individual and team-based PD.

4.5. INTERVENTIONS FOCUSED AT DIVERSITY, MULTILINGUALISM OR INCLUSIVENESS

In order to better understand the characteristics of programs that align with the overall ISOTIS aim to decrease social inequality, we analysed the interventions focused at diversity, multilingualism and/or inclusiveness more thoroughly. The 56 interventions that were included in this analysis were explored on all three components: what, who and how.

4.5.1. CHARACTERISTICS OF LEARNERS AND CONTEXT

The vast majority of interventions (88%) were aimed at teachers and caregivers working with children in the classroom in ECEC, kindergarten, primary or secondary school. In addition, some interventions also focused on leaders or managers (38%), paraprofessionals (18%) or mediators/parent liaisons (13%). Some interventions adopted a very broad approach aimed at all different professionals working on different levels within the organisation. One such example of an intervention from Germany is presented in Box 8.

BOX 8. CASE STUDY GERMANY: EARLY-YEARS LANGUAGE LEARNING

The federal program Early-Years Language Learning: Because Language is the Key to the World is an example of a broadly implemented intervention focused at diversity and inclusiveness, in terms of (types of) professionals that are reached. The nationwide intervention funds 7000 day care centres within socio-economically disadvantaged communities. As a consequence, the number of children with an immigration background and the number of children who grow up in families with low socio-economic or educational status in these centres are higher than average.

Goal

The federal program aims at raising the level of language-related quality in the day care centres and advance children´s language development. At the program´s core lies the attempt to use recurring daily routines within child care centres for children's language development. Inclusive pedagogy and close cooperation with the parents are two crucial spheres of activity tied to this attempt.

Method

The intervention follows a train-the-trainer approach. For the duration of the program, every centre receives financial aid to employ one language expert joining the centre's staff. Working together with the centre's head, the language expert trains the staff and supervises the initiated change processes. This tandem of the head and expert, closely cooperating, is itself being advised by an external quality consultant. Since the quality consultant cooperates with quality consultants working with other tandems of other centres, he/she can tie experiences and hand them over to his/her respective centre. The quality consultant him/herself also receives training.

Cooperation of and exchange between the quality consultants of the participating centres shall be enabled not only through regular meetings but also by means of an online platform, which is a further important component of the program. The platform contains additional information and materials, provided by the Federal Ministry and the federal program's Service Point. Also, the tandems working within the centres, consisting of the language expert and the centre's head, are welcome to use the platform if they wish to do so. More learning opportunities offered to the tandems by the program contain, among others, handouts on various topics, conferences on a regional level and telephone calls. For the tandems however, the quality consultant in particular is the central opportunity for learning and receiving support.

Lessons from Early-Years Language Learning Program

The training's top-down structure inherent to the program entails a dynamic process of knowledge transfer, since the different key persons can be considered as both the mentor as well as the mentee. The quality consultant trains and supports the centre's tandem, yet on the other hand, he/she is still someone to learn him/herself, as he/she receives training. This can also be applied to the language expert who is guided by the quality consultant, yet at the same time turns into the mentor with regard to the centre's staff. Furthermore, the big geographical scope of the intervention allows for further spread of knowledge and skills as it can be assumed that employees in the centres will take advantage of their newly gained knowledge and further developed skills – when pursuing their careers and working in other fields, thereby again creating spill-over effects going beyond the initial program.

The institutions mainly involved schools, covering a wide age range from early childhood up to secondary school, and a minority was carried out by social services (13%), NGO's (5%) or after school care (2%). Interventions in ECEC and kindergarten mostly focused on diversity and inclusiveness (43% and 56% respectively) or on inclusion (17% and 22% respectively). In primary school there appeared to be more variation, with 33% of the programs focused on diversity and inclusiveness and 23% focused on inclusiveness, and another 23% aimed at all three content areas. A similar picture emerged for programs aimed at secondary schools (with 29%, 23% and 29% respectively). For interventions aimed at professionals working in social services or NGO's the focus was mostly on diversity and inclusiveness (57% and 100% respectively).

Different patterns emerged depending on the targeted groups of families and children the professionals worked with. For professionals working with Romani or low-income families (almost) all interventions were aimed at diversity and inclusiveness, whereas programs for professionals working with generally disadvantaged children and second language learners were more often aimed at diversity, inclusiveness and multilingualism (43% in both cases).

In 36% of the interventions there was a combination of an external person and someone within the organisation who was responsible for the implementation of the intervention. In 31% of the cases a person within the organisation was responsible for the implementation of the intervention, whereas in 32% of the cases an external person who was responsible. A few different patterns emerged depending on the content area of the program. For interventions focusing solely on multilingualism, an external person was responsible for the implementation in 60% of the cases, whereas in programs focusing on diversity and inclusiveness or diversity, inclusiveness and multilingualism it was usually a person within the organisation (39% and 33% respectively) or a combination of internal and external people (39% and 42% respectively).

The vast majority of programs concerned a national intervention (41%) and a smaller proportion concerned a regional intervention (20%). The national interventions more often focused on diversity and inclusiveness (30%) or only inclusiveness (30%), whereas the local interventions showed a larger variety of different combinations of the three content areas.

Overall, the results showed that for professionals working in ECEC, kindergarten, social services and NGO's, the focus was mostly on diversity and inclusiveness, whereas a focus on multilingualism (as well) was more common in interventions for professionals working in primary and secondary schools. The findings illustrate that interventions focusing on diversity and inclusiveness (eventually in combination with multilingualism) most often relied on a person within the organisation, with or without the support from an external person, whereas interventions focusing solely on multilingualism mostly relied on an external expert. The majority concerned national interventions that were more often focused at diversity and/or inclusiveness. At a local level more variation in the three content areas was visible.

4.5.2. CONTENT OF PROFESSIONAL DEVELOPMENT

Of all programs, 69% focused at one or more content areas involving cultural diversity, multilingualism or inclusiveness. The majority focused on cultural diversity and inclusiveness (32%) or on all three content areas (23%). Another 21% of programs focused on inclusiveness, whereas a minority of interventions focused solely on multilingualism (9%). The vast majority of programs (57%) were not specifically focused at certain target groups. Almost 13% of the programs were targeted at professionals working with generally disadvantaged groups. Another 13% was targeted at professionals working with second language learners and 9% concerned interventions focused specifically on Romani.

Regarding the focus domains, 30% of the interventions focused on knowledge in combination with skills and attitudes, whereas 18% aimed at only knowledge in combination with skills (18%) and another 16% involved knowledge skills, attitudes and beliefs. In addition, 80% of the interventions aimed at multilingualism were oriented towards knowledge and skills, but did not include a focus on attitudes or beliefs, whereas interventions focused on cultural diversity and/or inclusiveness showed a stronger emphasis on attitudes and beliefs as well (73%).

Some different patterns emerged depending on the type of professional. Interventions targeted at knowledge and skills, or knowledge, skills and attitudes most often targeted the professional level (71% to 80%) in contrast to other (combinations of) levels. The combination of the management level and professional level (20% to 29%) was mostly addressed by the remaining interventions. There appeared to be a shift in this pattern when beliefs were included. Interventions that focused on knowledge, skills, attitudes and beliefs mostly targeted a combination of professionals and managers (40% to 44%), followed by the professional level only (0% to 22%).

Concerning the type of target groups, the interventions for professionals working with Romani were all aimed at skills, attitudes and/or beliefs or expectations. The interventions focused at professionals working with second language learners were in 43% of the cases targeted at knowledge and skills and in another 43% of the cases also included attitudes and beliefs. For programs aimed at professionals working with generally disadvantaged children or families, 43% targeted all focus domains.

The majority of interventions focused on both theory and practice (78% of the interventions). However, of the interventions for professionals working with Romani, 60% was practice-based compared to 40% for a combination of theory and practice. Also for professionals working with generally disadvantaged families, a solely practice-based intervention was used in 29% of the cases. Concerning the different topic areas, it also appeared that interventions aimed at diversity and inclusion were practice-based in 33% of the cases and in 23% of the cases for interventions aimed at diversity, inclusiveness and multilingualism. There was one example of a solely theory-based approach for an intervention aimed at only multilingualism.

Concluding, the findings showed that most of the interventions addressing diversity, inclusiveness and multilingualism were not targeted at professionals working with specific groups. Of the more targeted interventions, the largest groups concerned professionals working with generally disadvantaged families and second language learners. Overall, the results show that a focus on attitudes and/or beliefs was more common than a limited focus on knowledge and skills, particularly for interventions focused on cultural diversity and/or inclusiveness compared to multilingualism only. Further, the findings highlight that interventions for professionals working with Romani and generally educationally disadvantaged families showed a stronger focus on attitudes, beliefs and/or expectations compared to interventions for professionals working with second language learners. Although the majority of interventions used a combination of theory and practice, it appeared that interventions focused at diversity and inclusiveness also more often used a solely practice-based approach, whereas there was one intervention aimed at multilingualism that used a solely theory-based approach. Lastly, the results show that interventions aimed at Romani or generally disadvantaged families used a solely practice-based approach besides a combination of theory and practice.

4.5.3. PROFESSIONAL DEVELOPMENT STRATEGIES AND DELIVERY MODES

Virtually all interventions included a training approach (solely training 29%) complemented with reflection (25%) or coaching and reflection (34%). Three interventions (5%) only used reflection as PD strategy.

Of the interventions focused on multilingualism, 60% involved a 'training only' strategy, whereas interventions addressing diversity and/or inclusiveness more often included components of coaching and/or reflection. Interventions focused at diversity, inclusiveness and multilingualism mostly used training, coaching and reflection (46%), whereas interventions targeted at diversity and/or inclusion showed a variety of strategies that were roughly used to the same extent. The most comprehensive interventions aimed at cultural diversity, inclusiveness and multilingualism reported the use of three different PD strategies the most (46%) compared to interventions targeted at diversity and inclusiveness (28%) and inclusion (25%). Interestingly, the interventions focusing solely on reflection were all targeted at diversity and inclusiveness.

The interventions within the content areas of cultural diversity, multilingualism and inclusiveness showed some different patterns depending on the focus domain of the intervention. Interventions focusing on knowledge and skills relied on 'training only' in half of the cases and in the other half showed some different combinations of training with reflection and reflection with coaching. For interventions focused on knowledge, skills and attitudes, 29% relied on 'training only', whereas another 29% relied on training and reflection or even in combination with coaching (24%). Interventions that were also aimed at beliefs more often included training, reflection and coaching as strategy (67%).

The interventions for professionals working with Romani more often had a stronger emphasis on reflection as a PD strategy, potentially in combination with training and coaching (80%). The interventions using a 'training only' approach more often concerned professionals working with all families (56% of the cases) compared to interventions for professionals working with specific target groups.

The majority of interventions was delivered face-to-face (61%) and there were some combinations of face-to-face with online delivery (29%). Half of the interventions that used an

online only mode of delivery focused on diversity and inclusiveness. Further interventions focused at diversity and inclusiveness or diversity, inclusiveness and multilingualism also more often used a combination of face-to-face and online modes compared to the other topics (38% and 25% respectively).

Lastly, there appeared different patterns regarding the individual or team-based delivery mode and some of the PD strategies that were used. Particularly a combination of training, coaching and reflection showed to be a more team-based strategy as reported in the current interventions (58%), whereas 'training only' was more often an individual endeavour (81%). Approximately an equal number of the interventions was individually based or both individual and team-based (45% and 43%, respectively). The results also showed that interventions focused at multilingualism and/or inclusiveness more often adopted an individual approach (68%), whereas programs focused at diversity and inclusiveness were individual in 44% of the cases and both individually and team-based in 39% of the cases. Moreover, interventions targeted at diversity, inclusiveness and multilingualism adopted a combination of individual and team-based PD in 79% of the cases.

Overall, the results indicate that interventions focused at diversity and inclusiveness more often concerned a variety of strategies, including reflection and coaching, whereas interventions aimed at multilingualism used a training only approach. Also, the more comprehensive interventions used a larger variety of different PD strategies. Lastly, the results indicate more use of a combination of individual and team-based PD when the interventions included a focus on diversity or diversity, inclusiveness and multilingualism.

4.6. THE USE OF ICT

Four types of ICT usage were distinguished: no ICT component, optional use, necessary but limited use, and necessary use. In 22% of the cases there was no ICT component. Furthermore, in about one fourth of interventions the use of ICT was optional (22%). ICT tools listed within this category consisted of more organisational tools (the use of email or a webpage with information) and several tools that were complementary to the invention. For instance, these tools include e-tutorials for extra practice, video clips or an online platform that could be used to interact with other professionals. The use of the platform (as well as the other tools) was optional.

In less than one fifth (17%) of the interventions the use of ICT was not optional but necessary within the intervention, however, to a limited extent. The majority of these interventions included some type of ICT toolbox with materials that were either provided on a webpage or provided during a session within the intervention. These ICT materials most often concerned videos in order to provide some examples of good practices or to provide input for reflection on practice. Some other less often mentioned tools were online documents with various forms of information (e.g. guides or working sheets), online test, exercises, or a more interactive use of an online portfolio.

Additionally, in over one third of all interventions (38%) the use of ICT was necessary. A wide variety of ICT tools was listed as necessary within the intervention. These tools varied in terms of complexity, range and interaction. Some interventions used rather elaborate and complex e-learning modules or entire Virtual Learning Environments that allow for a variety of interactive activities. For instance, a web-based environment in which professionals can upload videos of their practice with an online tool that allows them to give time stamped feedback and

communicate with other professionals. In addition, several interventions use some form of an online platform to allow for reflection and interaction between professionals. Lastly, several interventions use an ICT toolbox with a variety of materials, such as different apps, exercises and training videos.

Altogether there appeared to be a (limited) role for ICT in more than half of the interventions. The interventions showed a large variety of ICT tools ranging from (solely) organisational purposes (e-mail or website with information) to a fully integrated part of the PD intervention (e.g., exchange of good practices, e-learning modules or an entire virtual learning environment).

In the following paragraphs, we will explore the use of ICT regarding the three main PD components.

4.6.1. ICT AND CONTEXT

The use of ICT as a requirement of the intervention was the most common for interventions targeted at teachers (38%), teachers and managers (40%) and teachers and paraprofessionals (40%). The two interventions aimed at only paraprofessionals also required the use ICT at least to some extent. The use of ICT in interventions appeared to increase as professionals work with older children, ranging from 29% for teachers in ECEC until 49% for teachers in secondary schools. Interventions carried out for professionals working in social services or NGO's used ICT in 40% and 20% of the cases.

Concerning the targeted families, the results showed that the use of ICT was most often part of interventions targeted at professionals working with the general population (84%) compared to specific target groups (16%). There was a tendency that interventions targeted at professionals working with Romani families (80%) more often used ICT to some extent compared to interventions for professionals working with Turkish/North African families (33%).

The extent of ICT usage varied depending on the levels at which PD was delivered. Obligatory use of ICT was more common than optional use or no ICT use at all when interventions were targeted at professionals (53%), professionals and managers (68%) or all types of professionals (80%).

Investigation of the relations between the usage of ICT and the implementation in the organisation shows that when the PD is implemented by both someone from within the organisation and an external expert, the use of ICT is more often necessary to some extent (65%) than in terms of single implementation structures (within the organization 42% or an external person 55%). Interventions implemented by someone within the organization most frequently did not require ICT or the use of ICT was optional (58%). Regarding the geographical scope it appeared that local and regional interventions most often used an ICT component (respectively 62% and 63%), whereas at the national level this only involved 31% of the interventions.

Overall, the findings show that the use of ICT is already quite common in school settings and increasingly so for professionals working with older children. Moreover the use of ICT was more common for interventions that targeted different types of professionals or working at different levels. Also, interventions that were implemented by both an internal and external person more often made use of ICT. Lastly, interventions that were either local or regional

more often had an ICT component compared to national interventions.

4.6.2. ICT AND CONTENT

The necessity of ICT in interventions differed depending on the focus domain of the intervention. For interventions that did not include any ICT at all, this concerned a focus on knowledge, skills and attitudes in 56% of the cases and including a focus on beliefs as well in 17% of the cases. For interventions where the use of ICT was optional, there appeared no clear differences depending on the focus domain. Interventions that involved the use of ICT to a certain extent, mostly concerned interventions focused on knowledge and skills (49%) and to a less extent interventions focused on knowledge, skills and attitudes (31%) or including beliefs as well (11%).

Regarding the content areas, (limited) ICT was necessary in about half of the interventions regardless of the topic. However, the extent to which ICT was used varied greatly, ranging from providing information on a website or providing support via email to full-blown Virtual Learning Environments. An example regarding an intervention from Flemish Belgium focused on diversity, inclusiveness and multilingualism that extensively relies on ICT use, can be found in Box 9.

BOX 9. CASE STUDY FLEMISH BELGIUM: POTENTIAL

In the school year 2017-2018 the Potential – power to teach all – is implemented in 32 primary schools and 24 secondary schools. The intervention is focused on diversity and inclusiveness and aims to develop teachers' competences to create inclusive classrooms. In addition, the use of ICT is not only necessary; it plays a vital role in both the execution and evaluation of the intervention.

Goal

The goal of the intervention is to develop teachers' competences to create more inclusive classroom, with a specific focus on 2 key competences: (1) appreciating and exploiting diversity in the classroom (through differentiated instruction, high-quality interactions, universal design for learning) and collaborative teaming (among teachers, external supportive professionals, parents and children).

Method

A core team of 3 to 10 teachers works on context-specific learning goals that are set in the first session of the intervention. In total, 6 sessions of 3 hours are planned with the core team during the school year. These sessions are guided by two coaches. Each session follows an action research cycle. Between the sessions the members from the core team experiment in their own context. At the end, a school wide educational seminar is organised by the members of the core team to disseminate insights from the program. The program ends with an evaluative session that looks back to the progress made and looks forwards to set goals for the next school year.

At the beginning of the intervention, a state of the art of teachers is measured through three online instruments: (1) a video-based comparative judgement instrument called e-PIC that measures teachers' professional vision of inclusive classrooms; (2) a social-network instrument that gives an image of teachers' networks related to creating inclusive learning environments (3) a survey to measure teachers' attitudes towards collaboration and diversity in the classroom. The results of these instruments are used in the PD to reflect on the current state within the school and set further learning goals. Furthermore, an online platform is provided for the coaches of the sessions with a script for the PD sessions and materials that can be used during the sessions. An online knowledge centre (website) is provided for the teachers in the core team with additional information, inspiration and good practices on creating inclusive learning environments.

Lessons from Potential

As the intervention is within its first year of implementation, there is not much information regarding the evaluation of the intervention. However, Potential uses a set of innovative measurement instruments that take the use of ICT within an intervention one step further. In contrast to many other interventions, the ICT tools are not merely used to guide and support PD, but they are a central part of the evaluation as well, both with regard to the participating professionals, as well as the researchers.

Lastly, ICT appears to be stronger reflected in interventions that are combining theory and practice (59%) compared to practice-based interventions (40%). Also two out of three theory-based interventions were mentioned as using some ICT, but to a limited extent.

Taken together, these findings show that focusing on knowledge and skills only, more often required the use of ICT to a certain extent whereas focusing on attitudes as well more often did not include a focus on ICT in the interventions. The topic of the interventions showed no relations with the use of ICT, but it appeared that interventions involving a theoretical component more often used ICT to a certain extent.

4.6.3. ICT, STRATEGIES AND DELIVERY MODES

In light of the number of PD strategies, we found that for interventions using only one strategy the use of ICT was the most common (45% for one strategy) compared to interventions using two or three strategies (23% for two strategies and 32% for three strategies). When exploring the PD strategies separately, we found that 50% of the interventions that only used training as a PD strategy indicated that the use of ICT was necessary. In 17% of the training only interventions limited use of ICT was necessary. Interventions using coaching showed more variation with 24% of the interventions not using ICT at all and 32% of the interventions where ICT is necessary. Lastly, for 54% of the interventions that used some form of reflection the (limited) use of ICT was necessary. For all of the interventions that used only reflection as a PD strategy the use of ICT was necessary (20% was limited use though). An example of such an intervention from the Czech Republic that only used a reflection strategy and indicated that use of ICT was necessary can be found in Box 10.

BOX 10. CASE STUDY CZECH REPUBLIC: PROFIVI VIDEOCLUBS

The ProfiVi Videoclubs intervention is an example of an intervention that uses a reflection strategy at both the individual and team level. The intervention is designed as a series of video club meetings for small groups of non-native English language teachers. The use of ICT is necessary as teachers videotape themselves and these videos are analysed and discussed with colleagues and experts.

Goal

ProfiVi Videoclubs is based on the situated learning theory and social constructionist concept of learning communities and has the aim to support professional vision of teachers to enhance communication skills of their pupils in English as a foreign language. Moreover, the intervention aims to develop a professional community and to promote a long-term cooperation between groups of teachers. The strength of the intervention thus lies in enhancing the culture of cooperation and overcoming the teachers´ isolation.

Method

The main activity of the intervention is the regular meeting of a small group of teachers, where video recordings of their (or somebody else´s) lessons are discussed and this discussion is mediated by facilitators. The groups usually consist of three or four teachers and two skilled facilitators. There are 5 meetings for every group and every session takes 90 minutes. The sessions are held throughout one year.

On the first meeting, the ProfiVi Videoclubs program is introduced and video recordings of lessons, chosen by the facilitators, are discussed. This way the participating teachers have an opportunity to learn how to reflect and discuss video recordings and to get acquainted with their colleagues in a secure environment, before they are urged to reflect upon their own recordings. From the second meeting on, the teachers begin to analyse video recordings of their own lessons. Each meeting consists of reflection and discussion of two selected recordings.

The intervention uses the medium of video recordings as a main instrument to support professional development of the participants in two ways. Firstly, it is used by the external facilitators of the intervention who introduce video recordings of teachers who are not members of the Videoclub. Secondly, the participating teachers bring the video recordings of their own lessons for further group analysis. After the meeting the participants reflect upon their impressions and experiences of the meeting by e-mail.

Lessons from ProfiVi Videoclubs

The main barrier of the intervention rests in the expected lack of experience in sharing the teacher´s own practice. Sharing their own practice can be a very challenging and uncomfortable task for the teachers. The pressure to criticize their colleagues may also be perceived as a burden. This issue was mentioned in the surveys as the participants' complained about the lack of critical feedback from their colleagues, while analysing the recordings of their lessons. Pressure to avoid conflicts and preserve good relations can halt the effectiveness of the intervention.

Here we can see the importance of the role of facilitators as those who can (leading by their own example) set the discussion's standards. Moreover, extending the number of meetings might also help to improve mutual understanding and trust of the participants, thus allowing them to provide and receive more open and honest critique.

Regarding the delivery modes, the use of ICT is by definition necessary for interventions that chose a solely online delivery mode. In 38% of the cases, this entailed limited use of ICT. If a combination of online and face-to-face was used, ICT use was necessary in 70% of the interventions (3% limited). Only one intervention had no ICT component. Consequently, the number of interventions with no ICT component was highest in the group that had face-to-face delivery mode (40%). Nevertheless, around a third of the face-to-face interventions indicated that the use of ICT is still necessary. The ICT usage that was indicated as necessary within the face-to-face interventions can be roughly divided into two categories. In some of the interventions ICT tools are predominantly used for organisational or communication purposes. This entails, for instance, the use of e-mail or chat in order to ask questions or a web environment to distribute the program of the intervention. Other interventions mostly use ICT tools as complementary to the intervention. For instance, the use of video materials is often mentioned as an ICT tool that is necessary for the intervention. However, the videos can be considered as materials that merely provide input for a face-to-face discussion or training and thus the overall delivery mode of the intervention can still be considered as face-to-face delivery.

Furthermore, obligatory use of ICT was most common amongst the interventions employing individual PD and combination of individual and team-based PD (respectively 41% and 42%). In contrast, in team-based PD the necessary use of ICT was the least common (18%). Box 11 provides an example of an intervention from Poland focused on both individual and team-based PD that used ICT as well.

BOX 11. CASE STUDY POLAND: GPTE

The Graduate Programme in Teaching English to Young Learners (GPTE) is an MA programme which aims to prepare students to work as English language teachers in ECEC centres as well as lower primary school level (grades 1-3) in diverse cultural and language teaching contexts, including bilingual settings. An online portfolio is used to guide both individual and team based PD.

Goal

The general objectives of the intervention include development of the MA program in teaching English to young learners with a special focus on English language teaching in Content and Language Integrated Learning (CLIL) and bilingual contexts, as well as strengthening the role of professional development with the means of teaching portfolio and various forms of teacher inquiry such as action research and exploratory practice.

Method

The GPTE is a two-year program delivered by lectures, seminars, on-line courses, practice teaching, study visits, workshops and summer courses. The programme of the intervention is adjusted to the experiences and the needs of stakeholders and the available resources.

The integral part of the program is an on-line teaching portfolio, which is a purposefully assembled collection of documents created by each student participating in the MA course. It consists of two parts. The first part is the GPTE Learning Portfolio, which is a tool encouraging students to reflect on their professional growth by documenting their experiences as they move through the programme and reflect on the process of developing new skills and knowledge with a special focus on the interplay between theory and practice. The strength of the Learning Portfolio is its integration with the whole programme as student teachers develop it during all coursework. In addition, student teachers create personal statements concerning learning and teaching of foreign languages and learning content in a foreign language. They identify their own weaknesses and strengths as teachers, as well as personal goals for professional development. While assembling their portfolios, students are asked to document materials, which address the key areas identified as the core for the programme. These are pupil learning, individual needs and learner autonomy, instructional strategies, planning instruction, learning environment, assessment, communication, reflection and professional development, collaboration ethics and relationships as well as subject matter. Teachers-to-be are encouraged to use the help of other students, teacher mentors and academics in creating their portfolios and to use a variety of means to do so, such as PowerPoint presentations and photos.

The second part of the Teaching Portfolio is The Pedagogical CV which is a document developed by students during the last part of the course which is to demonstrate their skills (exemplars and artefacts) to other students, supervising academics, teacher mentors and future employers. The portfolios of students are developed online and presented on Weebly. Students are strongly encouraged to continue to develop their portfolios after graduation.

Lessons from GPTE Poland

Even though formal assessment of the program outcomes for students or children has not been conducted some conclusion after four years of implementation can be drawn. Firstly, it is important that language teachers-to-be get acquainted with specific subject methodologies, for example mathematics, art or health education, as well. This will allow students gain better understanding of the complexities of language and content integration Secondly, the development of teachers-to-be seems to be more effective when this is considered as a shared responsibility of students, teacher mentors (together with the practitioners of the settings organizing practical training for students) and academics, therefore active cooperation among them through the whole course (planning, implementation and evaluation) is a necessity. Thirdly, the use of ICT may strengthen the continuity between pre-service and further in-service PD of teachers.

Overall, the use of ICT was most common in interventions using one strategy, followed by the interventions using three different strategies. Further, ICT was mostly used in interventions that included training and/or reflection as PD strategies and to a less extent in interventions involving coaching. Although ICT was used in all interventions using a solely online delivery mode, this usually concerned a rather limited use of ICT, whereas interventions using a combination of face-to-face and online delivery appeared to use ICT more extensively. Lastly, ICT as a necessary component was used more often in (partly) individual based PD compared to team-based PD.

4.7. EVALUATION

The studies included in the current inventory were chosen by the national researchers from each team based on their subjective assessment of the interventions as promising. There was great variation of the characteristics mentioned by the researchers, which referred to several aspects of the interventions, such as the delivery modes, content, opinions of stakeholders and experts, or having a research component. The two most mentioned reasons concerned the delivery mode and the evaluation of stakeholders or experts. Firstly, interventions were regarded as promising when it involved the use of ICT or concerned the collaborative involvement of professionals (team-based PD). Secondly, the choice for promising PD was based on arguments from stakeholders or external experts' positive judgement. When interventions were selected because of their content, researchers appreciated PD interventions that were targeted at the needs of professionals working with hard to reach groups, such as multilingual families and children. Lastly, some interventions were chosen because they had a research component, for example adoption of a design-based-research (DBR) approach or evidence from a RCT study. However, information on the effectiveness was usually scarce, as will be addressed in the paragraphs below.

A number of studies included some form of formative or summative evaluation. For 63% of the studies some kind of formative evaluation was available, compared to 40% of the studies that reported some kind of summative assessment. Concerning the formative evaluation, the majority of studies reported positive effects on professionals' experiences or satisfaction with the program (49%). Further, studies reported about the implementation of the program (24%) or delivery (10%). The following presentation of results concerns more qualitative findings to illustrate the kind of evaluation that occurred rather than providing strong statistical evidence.

One of the positive aspects mentioned concerned whether the content of the program was relevant for professionals' everyday experiences. They, for example, mentioned increased multicultural awareness in their practices and in the use of materials and activities. Another aspect concerned professionals' increased awareness of the role of their expectations in enhancing inclusiveness in school.

Also the degree of collaboration with colleagues and the effectiveness of having a shared vision within the team were mentioned as positive aspects. For example, the formation of professional learning communities was mentioned in multiple studies, which was greatly appreciated by the participants. They mentioned that they valued the opportunity to reflect and share experiences with other professionals.

Some interventions studied aspects of parental engagement or the parent-professional relationship. For example, several studies reported increased participation in ECEC provisions or family support programs. Moreover some studies mentioned aspects of outreach and establishing constructive and collaborative partnerships with parents.

Some of the interventions evaluated the use of ICT within the program, which overall appeared positive (83%). In two interventions participants mentioned some technical challenges or difficulties. This concerned accessibility of information, the availability of a high-speed internet connection and the simplicity of the tool.

Some of the feedback from participants concerned the option of having more time for reflection and having ample time for face-to-face contact. No direct assessments of professionals' knowledge, skills, attitudes, beliefs or expectations pre- and post-intervention were available, but some of the studies investigated professionals' efficacy, which appeared to be improved after the intervention.

There were also some critical reflections made by the professionals. A few studies mentioned the issue of not having enough time devoted to PD, especially regarding reflection practices. It was also mentioned that having more opportunity for exchange (for instance via an online community) would be very valuable. Finally, the importance of critical (self)reflection was stated. Reflection was considered to be useful only if participants are truly willing to be honest and critical in order to improve practices.

The interventions that were included in the current inventory were regarded as promising. The reasons for selecting the interventions were mostly related to the delivery mode, such as including a role for ICT or using a team-based approach. Also the focus on hard to reach groups was considered a reason for selecting the intervention. The interventions only reported on formative assessment, which provides some insights in the promising aspects based on professionals' experiences. The most commonly mentioned aspects referred to the use of reflection and collegial exchange. Some challenges were also mentioned, such as technical difficulties with ICT tools. Other feedback concerned the lack of sufficient time for reflection and exchange.

5. CONCLUSION

The results of the current review draw upon the findings reported in 81 interventions identified as promising approaches of professional development (PD). We will first present some general findings from the inventory and relate this to previous research. Next, we will elaborate more on patterns of results for specific topics that emerged from the inventory. Given the specific focus on diversity, multilingualism and inclusiveness and the role of ICT, these topics will also be discussed separately. Lastly, we will address how the results from this inventory can inform future work in PD.

5.1. GENERAL FINDINGS

The results of the current inventory showed that the majority of interventions was focused on teachers working in (pre)school settings, which seems to be in line with the majority of the literature that was introduced in Chapter 1. Interventions that were addressed to paraprofessionals or professionals working in social services or NGO's differed from interventions focused on teachers in a number of ways. First, the results showed that interventions focusing on professionals working in social services more often included a focus on professionals' beliefs in addition to knowledge, skills and attitudes, compared to interventions for teachers. Interventions for professionals working in NGO's less often included a focus on attitudes in comparison to interventions for teachers. The current results do not provide information on effectiveness of the PD, thus it is unclear whether this is reflecting a difference in professionals' needs or whether there are other reasons for this difference. Another difference concerns the finding that interventions that were aimed at paraprofessionals or carried out in NGO's showed a stronger focus on practice rather than on theory in comparison to interventions for other types of professionals working in a school setting. Finally, interventions aimed at both paraprofessionals and teachers showed a larger variety in PD strategies. Specifically, coaching and reflection were more common, especially when combined with training. The case study from Italy (Box 6) highlights an example of an intervention aimed specifically at paraprofessionals and shows how a blended-learning training was implemented. The combination of online delivery and face-to-face contact was mentioned as strength as it allowed for the necessary flexibility for the paraprofessionals who were dispersed across the region.

Furthermore, the current interventions were usually not focused at professionals working with a particular target group of children or families. In case an intervention was aimed at a specific target group, this mostly concerned generally disadvantaged children (10%) or second language learners (9%), followed by Romani families (6%). Nevertheless, in 70% of the cases the topic of the interventions involved cultural diversity, multilingualism or inclusiveness. This suggests that the interventions were general enough to be applicable for professionals working with a diverse population of children and families. However, the interventions focused on cultural diversity and inclusiveness or targeting professionals working with second language learners or Romani families differed from the other interventions in a number of ways. We will return to this issue in the section devoted to diversity, inclusiveness and multilingualism.

Although the provision of training was still a common form of PD, in line with previous findings (Schachter, 2015), the current results also showed that training was mostly combined with coaching and reflection (38%) or only reflection (24%). Merely training was only provided in 22% of the interventions and thus less common than a combination of strategies. The findings reported by Schachter (2015) also showed that coaching, usually in combination with other forms of PD, was the most common (55%), although mere training or workshops were reported

in 36% of the interventions. The present results thus seem to point to an increasing understanding of the importance of more dynamic forms of PD such as coaching and reflection, which has also been suggested by other scholars (e.g., Egert, 2015; Sheridan et al., 2009). This appeared especially important in view of changing professionals' attitudes.

Another finding concerns the focus domains that were targeted in the current interventions. The present results show that the largest share of interventions was aimed at changing professionals' knowledge, skills and attitudes (28%), followed by a focus on knowledge and skills (25%), and knowledge, skills, attitudes and beliefs (12%). Although this general pattern is in line with previous findings, a meta-analysis by Fukkink and Lont (2007) showed that more than half of the included studies involved a focus on attitudes, which is considerably more than found in the current inventory. We will further explore the results for interventions aimed at attitudes, as this showed some patterns in comparison to interventions focusing only on knowledge and skills.

Another pattern of results relates to the extent to which interventions have a narrow focus or take a broader, more comprehensive approach. Interventions that are narrow in the sense that they rely on a single PD strategy – i. e., training, coaching or reflection – also appear to have a more narrow focus concerning other characteristics. For instance, these interventions were more often aimed at teachers only, more often focused at a specific target group, mostly involved training only and appear to be implemented by either an external expert or someone within the organisation. Comprehensive interventions, on the other hand, showed to be oriented towards different levels of professionals, involving different PD strategies and aimed at all professionals, rather than professionals working with specific target groups. The Portuguese case study (Box 3) is an example of a very broad and comprehensive intervention that provides on-going professional development using a bottom-up approach by targeting different types of professionals, supporting all types of PD strategies and using different delivery modes. One of the strengths of the intervention is that the broad approach allows for maximal adaptation to the needs in the local context.

5.2. INTERVENTIONS AIMED AT PROFESSIONALS' ATTITUDES

A focus on attitudes appeared more common for interventions that addressed professionals working with specific target groups, such as second language learners or Romani children. Another pattern of results related to the type of setting professionals worked in. A stronger emphasis on attitudes was apparent in interventions for professionals working in primary and secondary school and social services, but appeared to be less common for professionals working in ECEC provisions or NGO's. Lastly, the results also showed that interventions targeted at professionals' attitudes were more often focused at cultural diversity and inclusiveness.

Interventions including a focus on professionals' attitudes were more often based on practice, rather than (partly) theory-based, in comparison to interventions focusing on only knowledge and skills. Relatedly, it appeared that it was more common to have someone within the organisation to be responsible for the implementation of the intervention, sometimes together with an external expert, compared to interventions aimed at knowledge and skills. This might point to the fact that interventions aimed at changing professionals' attitudes reflect a stronger bottom-up approach that is better adapted to the individual or local needs of the professionals. Lastly, the results also revealed that interventions aimed at professionals' attitudes were more often a team-based endeavour rather than individually based PD, as the interventions more often targeted professionals as well as leaders. This suggests that changing attitudes may be

more effective when this is a combined effort at both the individual and team level. The case study example from Norway (Box 2) illustrates what an intervention aimed at changing professionals' knowledge, skills and attitudes might look like in practice. This example highlights the collaboration between the university and university colleges, which provide theoretical courses on cultural diversity and multilingualism, and the participating kindergartens, which are responsible for the development and implementation of the intervention in their own kindergarten. One of the strong points concerns the involvement of staff from all levels, including assistants, teachers, pedagogical leaders and managers.

Another finding was related to the delivery mode of interventions aimed at changing professionals' attitudes. These interventions more often relied on a face-to-face delivery mode, compared to an online mode of delivery, or a combination of both. This might point to the fact that face-to-face contact is necessary to address harder to change aspects, such as beliefs and attitudes, which requires more dynamic exchange and interaction in a personal and more private atmosphere.

Another pattern that emerged concerns the use of different PD strategies. Interventions aimed at changing professionals' attitudes, more often used reflection in addition to training. This illustrates that a more dynamic PD component might be necessary to change professionals' attitudes as compared to focusing on knowledge and skills only. This result fits well with the theoretical framework as proposed in the Chapter 1, which highlights a major role for reflection. Reflection can facilitate the process in which professionals use their (daily) experiences to (re)consider, (re)evaluate and (re)construct knowledge, skills, attitudes and behaviour resulting in changes in everyday practice (Boud, Keogh, & Walker, 2013; Dewey, 1933). However, to facilitate reflection some preconditions are important to consider, such as time and space, and an emotionally supportive environment (Moon, 2000). Based on the findings in formative evaluations of some of the studies included in the inventory, it appeared that participants felt they needed more time for reflection. They indicated that more opportunity for exchange would have been very valuable. They underlined the importance of (self)reflection, but also mentioned that this only works if participants are willing to be honest and critical towards their own practices as well as their colleagues' practices. The case study example from the Czech Republic (Box 10) illustrated that a fear for conflicts and the will to preserve good collegial relations, in fact, limited the opportunity for critical reflection and feedback. A recent study compared how learning communities operated when reflecting face-to-face or via an online platform (Walker, Mahon, & Dray, 2017). The findings indicated that face-to-face reflection and exchange was related to more conflict and tensions within the group, but in the end the participants felt they had shown personal growth and had an increased understanding of themselves as professionals. Altogether, these findings seem to underline the importance of critical (self)reflection in order to affect a person's attitudes and ultimately behaviour and practices.

5.3. TEAM-BASED PROFESSIONAL DEVELOPMENT

Although exclusively team-based PD was not very common (14%), it was often combined with individual PD (42%). As mentioned in Chapter 1, there is a knowledge gap concerning team-based PD and its effectiveness (e.g. Egert, 2015; Zaslow et al., 2010). It is hypothesized that team-based PD is beneficial because it enables establishing a professional culture within the organisation that supports the implementation of newly acquired knowledge, skills and attitudes into daily practice, hence facilitating the sustainability in the long term. The current inventory does not provide evidence on effectiveness of team-based in comparison to individual PD, but it does illustrate some patterns of different combinations of PD components.

The present findings showed that coaching and reflection, as single strategies, were more often used in team-based PD, whereas training usually concerned individual PD. It can be hypothesized that particularly coaching and reflection as more dynamic forms of PD can contribute to creating or (re)negotiating a shared vision of the work and the goals that need to be accomplished. It can facilitate the process of thinking about which goals to work on, both in the short and longer term, and what is the best way to reach those goals. Moreover, it can contribute to establishing feelings of shared leadership and joint responsibility for the work, which can support feelings of professionals' self-efficacy. However, more research is needed to further investigate this. The case study example from Greece (Box 5) illustrates how team-based PD and collaboration between teachers can contribute to the development of shared leadership within a school as well as individual professional development.

In team-based interventions it was more common to have an external expert and someone from within the organisation who shared the responsibility for the implementation of the intervention in the organisation. This could reflect that an external expert is necessary to provide the (theoretical) input on a given topic and that the person within the organisation builds on this to further implement it within the organisation as he or she better knows the team and how the organisation works.

Concerning the topics of the intervention, the results showed that team-based PD was more often focused at child development or at improving overall classroom quality. Particularly in (pre)school settings this finding seems to make sense. In view of supporting children in their development and learning it is important to make sure that there is common understanding of children's development and how best to support this. An example of this was presented in the case study from the Netherlands (Box 7). This example of an intervention implemented across all layers of the ECEC system in the municipality Utrecht illustrates the development of a joint quality framework in ECEC as a starting point for a life-long learning initiative. However, it also seems important to have a shared understanding on supporting cultural diversity and multilingualism, but apparently this was not very common in the interventions that were part of the current inventory.

In terms of delivery modes, it appeared that interventions aimed at both individual and team-based PD more often relied on both face-to-face and online strategies. However, the extent to which ICT was used varied greatly, which will be discussed in the next section.

5.4. ROLE OF ICT

In over half of the interventions the use of ICT was necessary to some extent. However, this use of ICT showed large variation and ranged from the use as organisational tools (use of e-mail or website for information) to rather elaborate and complex e-learning tools or entire Virtual Learning Environments that were integrated parts of the interventions. The case study example from Flanders (Box 9) illustrates the use of ICT for different purposes in the intervention aimed at creating more inclusive classrooms. It describes the use of different ICT tools to measure, execute and evaluate the intervention, and to build an online knowledge centre that can be used as source of information and examples of good practices. The results of the inventory showed some patterns depending on the targeted professionals, the content and the use of PD strategies.

The use of ICT appeared to be increasingly more common as the group of children the professionals work with gets older, thus it is more common practice in primary and secondary

school settings than in ECEC and kindergarten. Further, the results showed that ICT was more often used in combination with face-to-face modes of delivery for professionals working in NGO's or social services. Likewise, the use of ICT was more common when different types of professionals were targeted with the interventions, such as teachers and paraprofessionals. Lastly, the use of ICT was most common for general interventions, not aimed at professionals working with a specific target group.

Although there were no differences in ICT use depending on the topic of the interventions, it was evident that interventions that were more theory-based, in combination with a focus on practice, more often relied on ICT than merely practice-based interventions. It could very well be that these interventions used ICT as a support for the theoretical part, such as the provision of webinars, lectures or e-learning activities on a certain topic. The case study from England (Box 4) illustrates an E-learning module that participants can complete. One of the strengths of this intervention is the many resources that are available for participants, which they can access flexibly. Moreover, it appeared that the use of ICT was more common for interventions focused at knowledge and skills, but less common when the focus was on professionals' attitudes.

Coaching was more often used with an online mode of delivery compared to the other two PD strategies: training and reflection. Further, it appeared that the use of ICT was more common across individually based PD or combinations of individual and team-based PD, but it was quite unusual for solely team-based PD. The case study example from Poland (Box 11) revealed how an online portfolio was part of the teacher-training program and highlighted the use of this portfolio for reflection and on-going professional development as students progressed through the master program. Lastly, the use of ICT was more common when both an external expert and someone within the organisation were responsible for the implementation of the intervention. It seems that ICT is more often used for individual support, but that it can be part of a team-based approach, especially when it is implemented by both an external expert and someone from within the organisation.

Some challenges in the use of ICT were mentioned as part of the formative evaluation of the studies or as part of the case study examples. One example concerned the reliance on solely online delivery of PD. Although this provides maximal flexibility in the access and usage of the PD activities, this also requires a strong individual motivation from participants. The professional's motivation, and thus the effectiveness of PD, could be strengthened when collegial exchange and support is an integral part of the intervention. Thus, this would require a combination of individual and team-based PD. Another challenge mentioned by the participants was related to technical difficulties in accessing the website or materials, problems with the internet or the simplicity of the tool.

5.5. INTERVENTIONS FOCUSED ON DIVERSITY, INCLUSIVENESS AND MULITILINGUALISM

Altogether about 70% of the interventions were aimed at cultural diversity, inclusiveness and/or multilingualism. Some different patterns emerged related to the specific focus of these interventions, distinguishing interventions aimed at cultural diversity and/or inclusiveness, on the one hand, from interventions with a focus on multilingualism, on the other hand.

In general, interventions aimed at diversity and inclusiveness were mostly targeted at professionals working in ECEC, kindergarten, social services and NGO's, whereas interventions focused on multilingualism were mostly targeted at professionals working in primary and secondary school. Interventions aimed at diversity, inclusiveness or multilingualism were more

often targeted at both the individual and the team level. In addition, these interventions showed a stronger focus on face-to-face delivery modes.

Another difference concerned the focus domains. Interventions aimed at diversity and inclusiveness showed a stronger focus on attitudes and beliefs, in addition to knowledge and skills, compared to interventions aimed at multilingualism. Likewise, interventions for professionals working with generally disadvantaged or Romani children showed a stronger emphasis on attitudes and/or beliefs compared to interventions aimed at second language learners.

Relatedly, this was also associated with a difference in PD strategy and the person responsible for the implementation of the intervention. The use of reflection and coaching was more common in interventions aimed at cultural diversity and inclusiveness, and this was usually implemented by someone from within the organisation, sometimes in combination with an external expert. For interventions focused at multilingualism the use of training was mentioned more often and this was usually implemented by an external expert.

Although, overall the interventions were both theory and practice-based, it appeared that interventions aimed at diversity and inclusiveness more often showed a stronger practice-orientation as well. However, this pattern differed depending on the type of provision the professionals worked in or the target group the professionals worked with. For professionals working in primary and secondary school the interventions still showed a stronger theoretical basis, whereas interventions for professionals working in NGO's or paraprofessionals were more practice-based. Also for professionals working with generally disadvantaged or Romani families, the interventions showed a stronger basis in practice. For the theoretically oriented interventions, an external expert was more often the one responsible for the implementation compared to practice-based interventions where someone from the organisation implemented the intervention. The case study example from Germany (Box 8) shows how an external expert collaborates with professionals within the organisation to implement a broad intervention aimed at supporting children's language learning and promoting inclusiveness.

5.6. OVERALL CONCLUSIONS AND STEPS FORWARD

Overall, the inventory revealed some interesting findings in considering ways to move forward in professional development in general and concerning cultural diversity, inclusiveness and multilingualism in particular.

First, the results revealed that interventions focused on changing professionals' knowledge, skills and attitudes often used reflection as PD strategy while targeting both the individual and team level of the organisation. This particularly appeared to be the case for interventions aimed at cultural diversity and inclusiveness. However, the number of interventions featuring all these characteristics is not very large yet and this model did not apply to all topics equally. For instance, interventions targeting multilingualism more often focused only at knowledge and skills and relied on a 'training only' approach. It might be that diversity and inclusiveness are more sensitive topics compared to multilingualism, that might be prone to evoking (strong) feelings, opinions, values or norms from professionals. Thus, interventions should incorporate a focus on attitudes besides knowledge and skills to change professionals' behaviour and practices. However, multilingualism might also be related to (strong) feelings, opinions, values and norms, although people might be less aware of this. The sometimes (strong) assimilationist approaches in (pre)school settings concerning the use of the heritage language is an illustration of this.

Hence interventions focusing on multilingualism might also benefit from taking a broader approach targeting professionals' attitudes as well.

Second, it appeared that a focus on multilingualism was more common for professionals working in primary and secondary school, and less common for professionals working with younger children. However there are two reasons for a stronger focus on multilingualism from an early age. First, language acquisition starts from birth, thus it is important to support the both the heritage and the second language from an early age, especially given the fact that a substantial amount of children is attending ECEC already from an early age. Interventions starting at an earlier age can contribute to closing or decreasing the education gap before children enter formal schooling. The second reason concerns the fact that second language learning builds on the proficiency in the first language, thus support for the heritage language can also contribute to second language learning. in the end. However, professionals working with the youngest children often lack the knowledge and skills to support multilingualism in an appropriate way, hence professional development is needed for professionals working with this group as well.

The results showed the role of reflection as PD strategy in several interventions, which fits well with our theoretical framework and the idea of life-long learning. However, the effectiveness of reflection depends on a number of conditions. Previous research has demonstrated the importance of having enough time for PD, which was mentioned by several participants in the formative evaluation of the interventions in the current study as well. Another aspect relates to the way reflection is used and facilitated. In order to be effective, reflection needs to be critical and constructive, which is a skill in itself. Hence, depending on professionals' skills and experience professional development should first be aimed at developing the skills to reflect upon your own knowledge, skills, attitudes, beliefs, behaviour and practices. Ideally, this should be part of the pre-service training of professionals, enabling continuity between pre- and in-service professional development, thereby increasing the sustainability of the trained skills.

Lastly, the results showed that ICT could play an important role in professional development. However, it seems that having a minimum of face-to-face contact remains important, particularly for reflection. ICT can be used for a variety of purposes and the current inventory illustrates some very interesting examples of the use of e-learning activities, video-based reflection, online exchange of practices and online tools for self-reflection among other things. However, it seems that in-depth reflection is more beneficial in a face-to-face setting in a team of professionals. Hence, it seems worthwhile to explore the use of ICT to maximally facilitate professionals' learning, but also to facilitate opportunities for collegial exchange in real time.

RECOMMENDATIONS FOR POLICY AND PRACTICE

- Reflection appeared to be an important strategy for changing professionals' knowledge, skills and attitudes. Therefore, reflection should have a stronger and more prominent role in the organisation of continuous professional development within organisations. This requires providing ample time for reflection and constructively facilitating the reflection process, either by an external expert or by someone within the organisation.
- A focus on professionals' knowledge, skills and particularly attitudes seems to be especially important when addressing topics that can be considered more sensitive, such as cultural diversity or inclusiveness, or when working with specific target groups, such as second language learners or Romani families.
- A comprehensive approach involving a combination of theory and practice, together with combined face-to-face and online delivery modes as well as the use of different strategies, such as training, coaching and reflection, appears to work best when targeting different types of professionals and professionals at different levels in the organisation
- Professionals working with the youngest children in Early Childhood Education and Care provisions could benefit from a stronger focus on multilingualism in professional development initiatives, as this appears to be scarce now.
- The use of ICT could be enhanced in professional development initiatives, but at the same time face-to-face contact appears to be essential as well. Thus it seems important to strike a balance between the two in a way that they strengthen each other.

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APPENDIX

Appendix 1 concerns the manual provided to partners for filling out the inventory.

1. AIMS OF THE TASK

The central aim of Task 5.2 is to conduct an inventory and review of current professional development models employed in different countries both inside and outside of Europe that are considered examples of promising practices, including also the role that ICT can play.

This task will conduct an inventory, using several search strategies and review of professional development programs and approaches focusing at multilingualism, diversity and inclusiveness in ECEC centres, schools and community programs working with parents and volunteers. Special attention will be paid to models of team-based learning, organizational policy and use of ICT. Based on the inventory, a number of the most promising approaches will be selected for in-depth analysis. To this purpose, a meeting with country representatives and experts from selected (on-going) projects will be organized to share knowledge and increase understanding of effective ingredients of professional development. The findings will provide the basis for the staff survey T5.3 and will be used to develop a transferable model of a professional development approach in T5.4

2. PROFESSIONAL DEVELOPMENT

PD includes all actions and activities aimed at improving professionals' knowledge, beliefs, attitudes, skills, behaviour and (teaching) practices. Concepts like knowledge, beliefs, attitudes, skills and behaviour are clearly related and show reciprocal influences see the Key Definitions for conceptualisations in the current study. Beliefs and attitudes can be more or less based on explicit or implicit knowledge and have an affective element of evaluation or judgment in it. Beliefs and attitudes, in turn, are hypothesized to drive one's expectations and everyday behaviour and actions, although the strength of this relation remains open for debate. In view of embracing cultural and linguistic diversity and enhancing social inclusiveness it is important to take a multidimensional approach targeting knowledge, beliefs and attitudes and the transfer to actual behaviour and practices.

In the context of professional development we follow the lifelong learning approach - all learning activity undertaken throughout life, with the aim of improving knowledge, skills and competences within a personal, civic, social and/or employment-related perspective (CEDEFOP, 2002). In this perspective a distinction can be made between formal learning, informal learning and non-formal learning, see the Key Definitions.

Although the main aim of this task is to identify promising practices in supporting professionals in dealing with *diversity and inclusiveness*. The other part of the task concerns *promising approaches to PD* in general, such as more dynamic forms of continuous PD (team-based reflection and learning, learning communities, etc.) and the use of ICT (digital learning communities, video-based PD etc.). Hence, the search for promising PD will focus on either one of these aspects or, ideally, both aspects.

To guide the inventory two types of interventions, programs or approaches will be included. The first concerns interventions identified as **effective** by means of proven positive results in improving outcomes in professionals or children (for instance RCT studies or other published or unpublished evidence). However, many programs or approaches may lack (scientific) evaluation, but can still be regarded as **promising**. We use the following criteria to identify these as promising:

- it uses an innovative approach in PD, such as team-based learning, professional learning communities or use of ICT
- it is highly considered among experts, such as researchers and/or professionals in the field
- it has been used or implemented in a community or region for quite some time, but has not been thoroughly evaluated through research
- it involves professionals working with hard-to-reach groups

In this task we are including a wide range of PD interventions, programs, approaches or practices to get a comprehensive picture of all the work on PD that might be relevant in this regard. Interventions refer to programs that are implemented with the intention to *change* professionals' knowledge, skills, attitudes, behaviour or current practices and are often investigated in studies to evaluate effectiveness.

Two types of evaluation are commonly distinguished: formative and summative assessment. Where formative assessment is aimed at the process and on-going PD intervention, summative assessment is focused at the outcome or impact of the intervention under study. Process evaluation, as a specific form of formative evaluation, is usually a first step in the evaluation of a PD program and concerns aspects of the delivery of the program or technology and includes also the satisfaction of participants. Some approaches or practices in (pre)schools, social or community services might not be interventions in a strict sense (with a clear goal of changing professionals' knowledge, beliefs, skills and practices) but can rather be part of the 'everyday' practices and hence, for that reason, still considered as interesting to include.

3. KEY DEFINITIONS

Attitudes refer to a system of beliefs about ideas, objects and people or situation predisposing one to respond in some preferential manner (Rokeach, 1968).

Beliefs or values are considered to be knowledge-based but contain an affective element as well, as it implies a certain judgement or evaluation, whereas knowledge is neutral in nature (e.g. Flores & Smith, 2009; Nespor, 1987).

Coaching/mentoring concerns PD activities based on a professional relation between two people, either peers (collegial coaching/mentoring) or a novice and more experienced person. Coaching sometimes is viewed as more strongly focused at skills, whereas mentoring involves an element of counselling (Kennedy, 2005; Rhodes & Beneicke, 2002)

Expectations are a function of professionals' beliefs and attitudes and, in turn, can affect everyday behaviour

Formal learning is typically provided by an education or training institution, structured (in terms of learning objectives, learning time or learning support) and leads to certification. Formal learning is intentional from the learner's perspective (CEDEFOP, 2002).

Formative assessment is conducted during the implementation of the program and is aimed at improving the PD program. It includes the delivery of the program, the quality of implementation and the assessment of the organizational context, the professionals or technology

Informal learning concerns learning resulting from daily life activities related to work, family or leisure. It is not structured (in terms of learning objectives, learning time or learning support) and does not lead to certification. Informal learning may be intentional or non-intentional (or

incidental/random) (CEDEFOP, 2002). For instance, observing colleagues or asking for feedback on your practices.

Interventions are programs or approaches that are implemented with the intention to *change* professionals' knowledge, skills, attitudes or current practices.

Intervision concerns reflection on own (educational) practices with one or more colleagues

Non-formal learning is embedded in planned activities that are not explicitly designated as learning, but which contain an important learning element (something described as semi-structured learning). It is intentional from the learner's perspective. Non-formal learning does not lead to certification (CEDEFOP, 2002). Examples might be mentoring/coaching, reflection/intervision or having team meetings to discuss the pedagogical goals of the work, design and implementation of (classroom) curriculum/activities.

Professionals are viewed as agents within a wider context of the school, institution or organisation and are considered the people interacting with children directly either in a formal (school) setting or an informal out-of-school (community based) setting.

Professional development concerns the full range of activities aimed at professionals' *knowledge, attitudes, beliefs* and, *skills*. Given the interrelatedness of all these different components a multidimensional approach to PD is required. PD includes both pre-service education at the vocational, Bachelor or Master's (including post-graduate training) and continued PD activities that take place within a school or organization, such as continued in-service training or lifelong learning initiatives.

Professional development delivery modes concern the different ways of delivering the PD.

- Individual vs team/organizational. Professionals can take part in PD individually based on their own needs and desires, whereas it can also be a team-based effort in which a team (or an organization as a whole) takes part in PD. The choice will likely affect the level of implementation and sustainability of PD in the organization.
- Face-to-face PD vs online learning with ICT. Different forms of PD can be conducted using ICT. For instance webinars or examples of good practices presented in a digital learning platform, video-based feedback and coaching from a distance, reflecting on practices and exchanging experiences in a professional learning community.

Professional development strategies consider the different ways of learning that can occur. This includes:

- Training or a course (either in-service or externally). These are usually relatively short courses in terms of duration and intensity, but can also involve attaining a post-graduate degree
- Mentoring or coaching on the job. This can be either by a colleague or pedagogical leader (internal) or an external expert, such as a pedagogue or psychologist. Usually coaching involves the use of (video-based) observation and feedback as main principles.
- Reflection, sharing and exchange of ideas, views and beliefs related to daily practices (intervision).

Summative assessment concerns the evaluation of a PD intervention focused at the outcome or impact of the intervention. This could involve outcomes of professionals in the targeted domain: knowledge, skills, attitudes, beliefs, practice and behaviour.

Training involves PD activities occurring outside of the formal education system, including in-service training, courses, workshops (Maxwell, Field, & Clifford, 2006).

4. PROCEDURE

STEP 1. Search for interventions

- Ask local/regional/national stakeholders/experts
- Search university databases
- Search national specialized journals
- Search governmental and NGO publications and websites

- Use **keywords** related to our task:

INTERVENTION/APPROACH: Intervention OR practice OR approach OR strategies OR program* OR prevention

AND

TARGET GROUP: professional OR teacher OR caregiver OR staff OR pedagogues OR managers OR volunteer OR paraprofessional OR teaching assistant OR leader OR mediator OR parent liaison OR teacher trainee OR student teacher

OR

FOCUS OF INTERVENTION/PROGRAM: knowledge OR skills OR attitude OR belief OR expectation OR value OR cultural diversity OR multilingualism OR parent partnership OR parent relation OR equal opportunities OR equality

AND

DELIVERY MODE AND STRATEGIES: ICT OR face-to-face OR course OR training OR coaching OR reflection OR observation OR team-based OR learning community OR community of learners OR intervision OR video-based OR feedback OR theory-based OR practice OR in-service OR pre-service OR education OR professionalization OR teach* education OR teach* skill* OR teach* improvement OR mentor*

AND

SETTING: Preschool OR early childhood education OR school OR classroom OR primary OR basic education OR Kindergarten OR Prekindergarten OR child* care OR early education

AND

AGE GROUP: 3-10/12 years

AND

TIME: 2007-2017

NOT

EXCLUSION CRITERIA: Disability OR disabled OR impairment OR impaired OR handicapped

STEP 2. Select interventions

We are especially interested in documenting **interventions that are difficult to find**:

- Interventions published in your own language (not available in English);
- Interventions described in grey literature.

The following **selection criteria** should be used:

- The intervention is described in a **written document**, specifying the intervention's goals and strategies (minimum requirements);

- The intervention was designed/implemented in the **last 10 years** (2007-2017).

STEP 3. Describe the interventions

- After searching and selecting the interventions, you need to describe each intervention.
- A **framework** was developed for this process, which can be found in Table 1 and in the excel file. This is the document you will use to describe each intervention. Open the file and fill in the information in English. There are three examples to facilitate your task. Each line of the Excel file should correspond to an intervention. We created five rows for you to fill in. Do not copy paste the rows yourself if you are starting with intervention number 6. Just create a *new* file using the original format again.
- See below a **Table** with each code and respective definition. This is structured around four sections, each one divided into several codes.
  - Under the General Information section, we ask you to include general information concerning the identification of the intervention.
  - Under the Scope of the intervention we ask you to fill out the basic descriptive information of the intervention.
  - Under the Characteristics of the Intervention section, we ask you to identify specific characteristics of the intervention concerning the topic, the targeted professionals, use of PD strategies and delivery modes. This information will be used to describe key features of existing interventions.
  - Under the Subjective Appreciation section, you are asked to provide your opinion regarding the intervention using a 5-point Likert scale.
  - Finally, in the Coder ID section, please fill the name of the person who filled out the intervention.
- For several aspects different answering options are provided that can be easily selected (delete what is not applicable) in the excel file to facilitate filling out the excel file. However, if you feel that the information from your intervention does not fit any of the pre set options, please use the "Other: …" option when provided, or use the *Additional Remarks* column that is provided at the end of each section (e.g. columns K, T. AI, and AO) to provide any information that you consider important.
- **Questions** regarding this task can be sent to Pauline Slot (p.l.slot@uu.nl) with CC to Olga Wyslowksa (olga.wyslowska@gmail.com).

Table 1. Framework for T5.2

1. GENERAL INFORMATION	**Intervention (Colum B)**	Insert the name of the intervention and version (if applicable). For instance, some interventions comprise different versions for professionals working with younger or older children. Provide an English translation of the title as well.
	Authors (Colum C)	Name of the authors that designed the intervention.
	Country (Colum D)	Name the country where the intervention took/is taking place. Since you are

		searching for interventions in your own country, it will be easy to fill in this category.
	Language (Colum E)	Original language of the intervention. Explicate if the intervention is originally designed in more than one language or if there are other translations besides English available.
	Translation (Colum F)	Are English translations of the intervention available? If there are English translations, explicate to what extent (e.g. complete translations or only partially).
	Link (Colum G)	Whenever available, insert the link for relevant websites or written documents. Relevant literature on the formative or summative assessment of the intervention excluded (see category later on).
	Type of Institution (Colum H)	Type of the institution that is leading the intervention (multiple answers possible). - educational - social - governmental
	Funding (Colum I)	Is the intervention funded or not? If so, specify the type of funding (e.g. research funding, government funding, institutions own resources, etc.). If there is a relevant funding history, describe the entire funding history.
	General Description (Colum J)	Briefly describe the intervention to provide a very general overview of the intervention. Your description should allow others to understand the general concept of the intervention.
	Additional Remarks (Colum K)	If you have any additional remarks regarding the part GENERAL INFORMATION, explicate them below.
2.SCOPE OF THE INTERVENTION	**Topic (Colum L)**	Topics addressed in the intervention/program (multiple answers possible). - PD in general (no specific focus) - Diversity (in general) - Cultural diversity - Multilingualism - Inclusiveness - Parental involvement - Cognitive development - Socio-emotional development - Improving (classroom) quality

		- Other
	Professionals (Colum M)	Targeted professionals (multiple answers possible). - Teacher/caregiver - Teaching assistant - Teacher to be/trainee - Paraprofessional/volunteer - Professional/pedagogical leader or manager - Mediator/parent liaison
	Institutions (Colum N)	In what type of institutions do these professionals work (multiple answers possible). - ECEC centres - Kindergarten - Primary schools - Secondary schools - Community centres - Social services - NGO's - Other
	Families/Children (Colum O)	Is the intervention targeted at professionals that work with specific families/children (multiple answers possible). - Turkish - North-African - Romani - Native low income - Generally educationally disadvantaged - All families/children (no specific target group) - Other
	Scope (Colum P)	Geographical scope of the intervention in reaching and targeting the professionals who work with families/children (see manual for definition of geographical scope). - Local (one organisation/institution) - Local (multiple organisations/institutions) - Regional (voluntary) - Regional (obligatory) - National (voluntary) - National (obligatory)
	Organisation (Colum Q)	Which levels of the organization are targeted (multiple answers possible)? - Professionals

		- Volunteers - Direct managers/team leaders - Direction board/higher level managers
	Implementation (Colum R)	Who is responsible for the implementation of the intervention (multiple answers possible)? - Professional within the organisation - Specialist within the organisation - Manager/leader within the organisation - External trainer - External specialist - Other
	Focus strategy (Colum S)	In what areas is the intervention aiming for change (multiple answers possible)? - Knowledge - Skills - Attitudes - Beliefs or values - Expectations - Other
	Additional Remarks (Colum T)	If you have any additional remarks regarding the part SCOPE OF THE INTERVENTION, explicate them below.
3. CHARACTERISTICS OF THE INTERVENTION	**Goal (Colum U)**	What is the main goal of the intervention?
	Duration & Intensity (Colum V)	Duration and intensity of the program (e.g. number of sessions or weeks + hours per session).
	PD strategies (Colum W)	What PD strategies are used in the intervention (see manual on definition of PD strategies, multiple answers possible)? - Training/courses - Mentoring/coaching on the job - Reflection/intervision - Other
	Delivery mode (Colum X)	How is the PD delivered? - Face-to-face - Online - Combination of online and face-to-face
	Theory vs Practice (Colum Y)	Is the intervention more theory-based or practice-based? - Theory-based - Practice-based - Both
	Individual vs Team	Is the intervention focused on individual

	(Colum Z)	professionals or team-based learning (see manual for definition)? - Individual PD - Team-based PD - Both
	ICT (Colum AA)	Does ICT play a specific role in the intervention? - No there is no ICT component - Yes, but use of ICT is optional - Yes, limited use of ICT is necessary - Yes, use of ICT is necessary
	ICT (2) (Colum AB)	Explicate what forms of ICT are used and how they are used in the intervention.
	Additional remarks (Colum AC)	If you have any additional remarks regarding the part CHARACTERISTICS OF THE INTERVENTION, explicate them below.
4. SUBJECTIVE ASSESSMENT	**Innovation (Colum AD)**	How innovative is the intervention? - Not innovative at all - Somewhat innovative - Moderately innovative - Innovative - Very innovative
	Spread (Colum AE)	How widespread is the intervention? - Not widespread at all - Somewhat widespread - Moderately widespread - Widespread - Very widespread
	Well known (Colum AF)	How well known is the intervention? - Totally unknown - Unknown - Moderately known - Known - Well known
	Acceptation (Colum AG)	How well accepted is the intervention? - Totally unaccepted - Unaccepted - Moderately accepted - Accepted - Well accepted
	Promising (Colum AH)	Why do you consider this PD intervention promising (see manual for definition of promising interventions)?
	Additional Remarks (Colum AI)	If you have any additional remarks regarding the part SUBJECTIVE ASSESSMENT, explicate them below (for instance, explicate your reasons for

		your assessment regarding *spread*, *acceptation*, etc.)
5.RESEARCH	**Formative Assessment (Colum AJ)**	Are results of (scientific) research on the formative assessment of the intervention available? Informal research within the organisation should be mentioned here as well (multiple answers possible). - No - Yes, regarding delivery - Yes, regarding implementation - Yes, regarding professionals' experiences/satisfaction - Other
	Formative Results (Colum AK)	Briefly describe the relevant (scientific) findings of these studies and to what extent these findings are (still) used.
	Summative Assessment (Colum AL)	Are results of (scientific) research on the summative assessment of the intervention available? Informal research within the organisation should be mentioned here as well (multiple answers possible). - No - Yes, effect study/studies - Yes, as a part of a meta-analysis - Yes, as a part of a review - Yes, as a paper/poster presentation - Other
	Summative Results (Colum AM)	Briefly describe the relevant (scientific) findings of these studies and to what extent these findings are (still) used.
	References (Colum AN)	Relevant references (APA).
	Additional Remarks (Colum AO)	If you have any additional remarks regarding the part RESEARCH, explicate them below.
6. CODER ID	**ID (Colum AP)**	Name of the person who filled out the inventory.

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ISOTIS

INCLUSIVE EDUCATION AND SOCIAL SUPPORT TO TACKLE INEQUALITIES IN SOCIETY

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