



Review article

Increasing teachers' intercultural competences in teacher preparation programs and through professional development: A review

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HIGHLIGHTS

- Intercultural competences of in-service and pre-service teachers need to improve.
- We conducted a review of professional development targeting intercultural competences.
- Guided reflection and enactment are important facilitators of change.
- An embedded, contextual approach is necessary to improve intercultural competences.

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ABSTRACT

This article reviews professional development efforts that aim to improve intercultural competences of in-service and pre-service teachers working in primary and early childhood education. A specific purpose was to evaluate the impact of the wider context and the use of reflection and enactment as facilitators of change. An analysis of 23 in-service and 22 pre-service papers shows that an embedded and contextual approach to professional development, in which reflection is guided and enactment is fostered, is most likely to effectively increase teachers' intercultural competences. However, such an approach is still uncommon in the field of teacher preparation and support.

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As Western societies are facing growing cultural, linguistic and socio-economic diversity, dealing with this diversity becomes the everyday reality of the (early childhood) education workforce. Though the need for intercultural competent teachers is increasingly recognized, many teachers still feel ill-prepared in working with culturally and linguistically diverse children (e.g., Slot, Romijn, & Nata, 2019; Banjeree & Luckner, 2014; Michel & Kuiken, 2014). This raises the need for professional development (PD) that better prepares pre-service teachers (student teachers) for the challenges of diverse classrooms and better supports in-service teachers in working with these children and their families. Recent reviews on this topic (e.g., Bottiani, Larson, Debnam, Bischoff, & Bradshaw, 2018; Civitillo, Juang, & Schachner, 2018; Parkhouse, Lu, & Massaro, 2019) show that PD efforts to raise teachers' intercultural competences can be effective, though several studies indicate participants did not grow as much as initially expected. Parkhouse et al. (2019) noticed that most authors explain a lack of effect as a result of teacher or program aspects (i.e., low motivation or too little attention for culturally specific knowledge within the program). Only one study offered a more comprehensive explanation for a lack of effectiveness, addressing the teachers' readiness for change, the complex relationship between beliefs and practices, and how the policy context of the school and state provided major challenges for the PD intervention to be successful (i.e., Lee, Luykx, Buxton, & Shaver, 2007). The current review elaborates on this and explicitly addresses how characteristics of the wider context in which PD takes place can support or hinder change. Furthermore, we address the underlying mechanisms of change in terms of reflection and enactment as key facilitators of changing teachers' competences and investigate how these mechanisms impact PD effectiveness. Moreover, as intercultural competences are important to master for both student teachers as well as teachers currently working in the field, we simultaneously examine the differences and similarities in PD strategies that are used to prepare student teachers and support (in-service) teachers.

1. Professional development: a comprehensive model

Professional development is often used to describe a broad variety of facilitated learning opportunities, ranging from single-off workshops and consultations to comprehensive curricula and communities of practice (Buysse, Winton, & Rous, 2009). It encompasses all actions and activities focused on education, training and development opportunities for professionals with the ultimate goal of improving children's developmental or educational outcomes (Sheridan, Edwards, Marvin, & Knoche, 2009). Buysse et al. (2009) propose a conceptual framework that can be used when creating, implementing or evaluating effective professional development efforts. Their framework conceptualizes professional development as three intersecting components (the *who*, the *what* and the *how*) within a wider context. Several researchers (e.g.,

Egert, Fukkink, & Eckhardt, 2018; Siraj Kingston, & Neilson-Hewett, 2019) have used this model to address the effectiveness of PD, however, they acknowledge that the model lacks theory on the underlying mechanisms that facilitate change. This underlying mechanism, which Siraj, Kingston, and Neilsen-Hewett (2019) refer to as the translation of new levels of understanding into sustainable practice, is important to consider and therefore we adopt a recently proposed theoretical model of Slot, Romijn, & Wyslowska (2017) (see Fig. 1) in which both the underlying mechanisms of change and key components and context of PD are addressed by adding an intra-individual level to the model of Buysse et al. (2009). In the following sections we will briefly describe the different layers of this theoretical model.

Wider context. Fig. 1 shows that PD always takes place within a wider context, which consists of local and national policies, organizational structures and resources, evaluation, access and outreach. The work of Slot & Nata (2019) highlights the importance of the context at the national and organizational level as prerequisites for successful PD. National, local and organizational policies should guarantee time and resources for professionals' continuous development and a shared mission and strong leadership are essential to ensure sustainable change. Other studies also demonstrate that the effectiveness of PD is dependent on local policy (e.g., Desimone, Proter, Mirman, Garet, & Yoon, 2002; Lee et al., 2007), organizational leadership (e.g., Timperley, Wilson, Barrar, & Fung, 2007), the embeddedness within the wider community (e.g., Yoshikawa et al., 2015) and even the characteristics of country ECEC and schooling systems (e.g., Jensen & Iannone, 2018).

Key components. The *who* emphasizes the characteristics of the learners who vary widely with respect to their qualifications, experience, culture and the children and families they serve (Buysse et al., 2009). Given individual differences between teachers, they may benefit from different PD approaches and content (Siraj et al., 2019) and thus an assessment of these individual differences should be part of designing PD (Slot & Nata, 2019). For instance, Alkharusi, Kazem, and Al-Musawai (2011) showed that teachers demonstrate higher levels of perceived skillfulness compared to student teachers, whereas student teachers demonstrate higher levels of relevant pedagogical knowledge. Also, teachers' own cultural and linguistic background (e.g., Flores & Smith, 2009; Lee & Oxelson, 2006) and the specific characteristics of the parents and children they work with (e.g., Symeou & Karagiorgi, 2018) impact the effectiveness of PD. These characteristics may be especially important when PD is targeting classroom diversity and intercultural competences.

The *what* refers to the content of the PD and defines the knowledge, skills and dispositions that are targeted (Buysse et al., 2009). Desimone (2009) states that PD effectively enhances knowledge and skills, especially if PD is focused on specific content (i.e., literacy), requires active learning, shows coherence with existing knowledge and beliefs, has a sufficient duration and requires a collective participation of teachers from the same school,

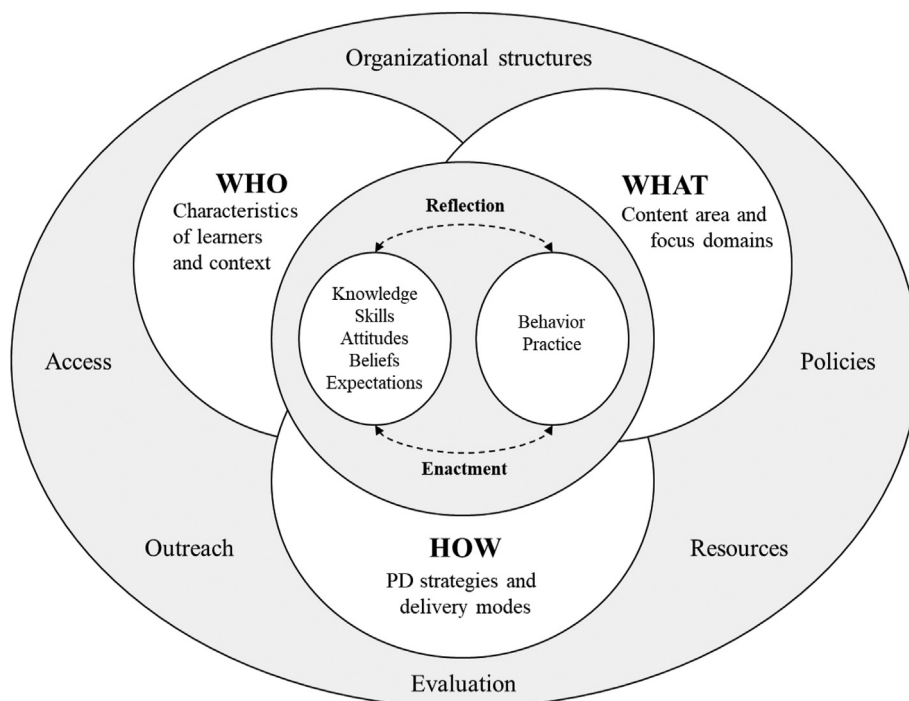


Fig. 1. Conceptual framework of professional development.

grade or department. There is less consensus on the effectiveness of PD on changing teachers' beliefs and attitudes. Both teachers and student teachers have a set of developed assumptions, beliefs, attitudes and values, which is often referred to as a teacher's belief system (Spies, Lyons, Huerta, Garza, & Reding, 2017). While some researchers argue that these belief systems are rather inflexible and resistant to change (e.g., Richardson, 2003), others found that teachers' belief systems can be altered through PD (e.g., Vartuli & Rohls, 2009). Moreover, a review of Civitillo et al. (2018) found that some PD components are more effective than others when it comes to changing teachers' beliefs about cultural diversity. Especially experiential training (i.e., field experience) and reflection and discussion about cultural diversity were found to be effective.

The *how* refers to PD strategies and delivery modes and can help identify the most promising PD approaches (Buyse et al., 2009). A wide array of (combinations of) PD approaches are reported on in the literature and several studies have provided various classification systems (e.g., Parkhouse et al., 2019; Schachter, 2015; Sheridan et al., 2009). For instance, a review of Schachter (2015) identified 35 different approaches in 73 studies. The inclusion of coaching, the use of workshops and the implementation of a curriculum appeared most frequent, while coursework, online resources/coaching or communities of practice were less common. Parkhouse et al. (2019) coded nine types of PD experiences (i.e., workshop, action research, immersion experience, community of practice, coaching, self-rating, video-feedback, critical friendships, online component) and found that more than half of the programs included multiple components. A growing body of empirical evidence suggests that effective PD requires the use of multiple methods of training and intensive on-going support that is embedded within practice and adapted to the local needs and goals (e.g., Buyse et al., 2009; Parkhouse et al., 2019; Siraj et al., 2019). The number of approaches used in the classification of Parkhouse et al. (2019) proved to be distinguishing enough to effectively identify different strategies, while still being able to identify overarching patterns and will therefore be adopted in the current

review as well.

Underlying mechanisms. Theoretical models of change usually imply a multistep path from PD to child outcomes (Egert et al., 2008). The key components of PD affect the knowledge, skills, competencies and dispositions of teachers, which in turn influence classroom practices and ultimately child outcomes. Another line of research that criticizes this causal chain derives from the work of Guskey (1986) who states that the mechanism works the other way around. Changes in teachers' beliefs and attitudes are more likely to occur after teachers can experience hands-on how new practices improve student learning outcomes. The multistep model of Desimone (2009) addresses this conflicting perspective and implies that not only changes in knowledge, skills and beliefs can lead to new practices, these new practices can affect knowledge, skills and beliefs as well. Clarke and Hollingsworth (2002) address this issue as well and drafted an interconnected model of PD which suggests that change occurs through a mediation process of reflection and enactment. *Reflection* here stems from the work of Dewey (1910) who refers to it as active, persistent and careful consideration. In the context of professional development, it is a general term for intellectual and affective activities in which teachers explore their experiences in order to create new understandings and appreciations (Boud, Keogh, & Walker, 2013). *Enactment* refers to a mechanism that goes beyond merely 'acting' and can be described as the translation of a belief, knowledge or experience into action (Clarke & Hollingsworth, 2002). The conceptual framework presented in Fig. 1 acknowledges the reciprocal relationship between knowledge, skills and dispositions on the one hand and practices and behavior on the other hand, and following Clarke and Hollingsworth (2002) reflection and enactment are viewed as important facilitators of change.

2. Intercultural competences

Over the past decades, the conceptualization of *intercultural competences* has led to a rich conceptual and theoretical landscape

in which numerous authors have tried to define the concept (Spitzberg & Changnon, 2009). Moreover, Spitzberg and Changnon (2009) found that over 300 terms and constructs relate to the concept of intercultural competences or are used interchangeably. For instance, the concept of *intercultural sensitivity* is used by Bennett (2004) to explain how people experience and engage with cultural differences and how they gain the ability to create experiences that match that of people from another culture. Other concepts that focus more directly on the school context are *culturally responsive teaching*, which can be defined as “using the cultural knowledge, prior experiences, frames of reference, and performance styles of ethnically diverse students to make learning encounters more relevant to and effective for them” (Gay, 2000, p. 29) and *culturally relevant pedagogy* as introduced by Ladson-Billings (1995). Another extensively used framework is Banks’ (2004) concept of *multicultural education* which influences and changes students’ beliefs, attitudes and actions through five dimensions: content integration, knowledge construction, equity pedagogy, prejudice reduction and empowering school culture. This framework is especially evident in K-12 research in the US and studies on pre-service teacher education (e.g., Sleeter, 2001). In this review we adopt a definition of intercultural competences of Pastori, Mangiatordi, Ereky-Stevens, & Slot, 2018, building on frameworks of intercultural and global competences as proposed by UNESCO (2013, 2014), the OECD (2018) and the Council of Europe (2014). Despite minor differences, these frameworks have in common that they focus on knowledge, values, attitudes, skills and actions from a human rights perspective in which diversity is highly valued (Pastori et al., 2018). Although diversity encompasses a wide variety of characteristics such as race, ethnicity, gender, sexual orientation and religion, the current review focusses exclusively on intercultural competences in light of cultural and linguistic diversity.

The intercultural framework of Pastori et al., 2018 follows the definition of *global competences* of the OECD (2018) which refers to the ability to examine local, global and intercultural issues in order to understand and value the perspectives and world views of others, to engage in open and constructive dialogue with people from different cultures and to act for collective well-being and sustainable development. In addition, Pastori et al., 2018 include a focus on multilingualism as a resource with potential benefits for individuals and society in line with the work of the Council of Europe (2014). Following Pastori et al., 2018, intercultural competences encompass knowledge, values, attitudes, skills and action which are interrelated and reciprocal in nature. Here, knowledge refers to knowledge of the self, of language and communication, and of the world in a broad sense (i.e., politics, law, human rights, cultures, religion). Values and beliefs comprise a wide variety of topics, such as diversity, inclusion, human rights and justice, and are considered to be knowledge-based but contain an affective element as well as these imply a certain judgement or evaluation in contrast to knowledge which is neutral in nature (e.g., Flores & Smith, 2009; Nespor, 1987). Attitudes refer to a system of beliefs about ideas, objects and people or situations predisposing one to respond in some preferential manner (Rokeach, 1968). According to Pastori et al., 2018, positive intercultural attitudes express openness to cultural otherness and other beliefs, world views and practices. Moreover, it concerns attitudes that express respect, civic-mindedness, responsibility, self-efficacy and tolerance of ambiguity. Some of the most important skills in terms of intercultural competences are listening and observing, co-operation and conflict-resolution skills, and communicative skills. In addition, the framework explicitly considers analytical and critical thinking and the ability to use this to reflect on your personal biases as a crucial skill. Finally, intercultural competences encompass the actions that

are taken for collective well-being and sustainable development, both locally and globally (Pastori et al., 2018).

3. Current study

In this article, we describe the results of a systematic review on the effectiveness of professional development efforts aimed at enhancing teachers’ intercultural competences. We focus on teachers working with children from birth until high school age (i.e., day care, preschool and primary education) as well as student teachers enrolled in teacher education programs to prepare for this workforce. Following our conceptual framework of PD (Fig. 1) this review addresses the following research questions:

- What are the key components of PD aimed at enhancing teachers’ intercultural competences and do we see differences in patterns for pre-service teacher preparation and in-service professional development?
- What does the literature report on the impact of the wider context on the effectiveness of PD?
- What does the literature report on the use of reflection and enactment as facilitators of change?

4. Method

4.1. Literature search

The literature for this review was found by a search carried out in three databases: ERIC, PsycINFO, and Web of Science. We checked to what extent several relevant journals (e.g., *Intercultural Education*, *Professional Development in Education*, *Journal of Multilingual and Multicultural Development*) were listed in these databases and concluded a combination of these three databases would be sufficient. We searched for empirical articles published in (peer-reviewed) journals and dissertations that were published in the English language in the last 15 years (since 2005). No restrictions for the type of research (e.g., quantitative, qualitative, mixed-method, experiment, narratives) were formulated. A query combining key words on four topics was used for the initial search (see Table 1): a) professional development (e.g., training, coaching, community of learners), b) intercultural competences (e.g., cultural awareness, linguistic inclusion, intercultural proficiency), c) profession (e.g., educators, pre-service teachers, student teachers), and d) educational setting (e.g., early childhood education and care, primary school, kindergarten). In addition, some key words were used to exclude literature focusing on other forms of diversity (e.g., disabilities, disorders, sexual-orientation), non-educational settings (e.g., medical, sport, health) and specific subject matter (e.g., math, creativity, music, art). Our initial search yielded 1586 hits of which 1291 remained after language restrictions and deduplication. In addition, we cross-referenced the first 150 results of a Google Scholar search to ensure the quality of our the initial search. The vast majority of the Google Scholar hits was included in the initial search. The remaining hits were processed in a similar way as the hits from the initial search.

4.2. Selection of articles

The selection of articles proceeded in three steps, using several inclusion and exclusion criteria. First, the titles and abstracts were used to exclude literature that was neither related to the intercultural competences of early childhood or primary education teachers nor to their general professional development. This resulted in the exclusion of 770 papers. Second, the available full-text was

Table 1
Sample query: Key words and filters.

Key words per topic	
Intercultural competences	(intercultural competence* OR multicultural competence* OR cultural competence* OR intercultural sensitivity OR multicultural sensitivity OR cultural sensitivity OR intercultural awareness OR multicultural awareness OR cultural awareness OR intercultural responsiveness OR multicultural responsiveness OR cultural responsiveness OR intercultural proficiency OR multicultural proficiency OR cultural proficiency OR culturally responsive teaching OR culturally responsive pedagog* OR democratic education OR citizenship education OR cultural diversity OR urban education OR social inclusion OR cultural inclusion OR global competence* OR anti-bias education OR anti-discrimination education OR monoculturalism OR intercultural teaching OR multicultural teaching OR intercultural education OR multicultural education OR tolerance practice* OR linguistic diversity OR multilingualism OR bilingualism OR multilingual teaching OR multilingual education OR linguistic inclusion) AND
Professional development	(professional development OR professional development intervention* OR professional development program* OR teacher training* OR teacher education OR teacher course* OR coaching OR coaching OR mentoring OR reflecting OR reflection OR life-long-learning OR communities of practice OR communities of learners OR community of practice OR community of learners OR pre-service training* OR pre-service education OR in-service training* OR in-service education OR curriculum OR internship* OR exchange program*) AND
Profession	(teacher* OR teacher to be OR student teacher* OR pre-service teacher* OR teacher to be OR educator*) AND
Educational setting	(early childhood education and care OR early childhood OR preschool OR primary school OR primary education OR kindergarten OR elementary school OR day care OR daycare OR ECEC OR nursery OR early childhood education OR early childhood care OR K-12 OR pre K) AND
Search Filters	<ul style="list-style-type: none"> •Setting limitations to include only literature of the past 15 years (i.e., 2005-2019). •Setting limitations to exclude books, speeches, presentations and datasets. •Setting limitations to only include literature published in the English language. NOT
Other types of diversity	(disab* OR autism OR ADHD OR deaf OR asperger OR syndrome OR patient OR disorder OR gifted OR giftedness OR gender OR sexuality) NOT
Setting	(medical OR health OR sport OR physical OR university OR college ^a) NOT
Specific subject matter	(environmental OR math* OR biology OR art OR music* OR food OR computer sciences OR engineering OR history OR STEM OR science education OR geography OR political OR creativity)

^a Note. As some literature included a sample of both primary school and secondary school teachers, key words such as secondary school or high school were not used to exclude any literature.

scanned to exclude 396 papers that did not report on any form of professional development (both in-service and pre-service) or intercultural competences (e.g., knowledge, skills, attitudes, beliefs, behavior or practice). Of the remaining 116 papers, we excluded articles that merely described professional development needs (e.g., Banjeree & Luckner, 2014) or theoretically presupposed the relationship between teachers’ intercultural competences and professional development but did not investigate this relationship empirically (e.g., Allen, Hancock, Lewis, & Starker-Glass, 2017). Furthermore, we excluded papers that measured intercultural competences and retrospectively asked teachers to provide information on their professional development history (e.g., Aragona-Young & Sawyer, 2018) or articles that focused on intercultural competences within a specific subject context (e.g., Holdway & Hitchcock, 2018). In addition, papers describing classroom interventions or curriculum development were excluded if they exclusively focused on children’s intercultural competences rather than teachers’ competences (e.g., Cullen et al., 2009). Lastly, eight potentially relevant papers (of which seven dissertations) were excluded as the full-text was not freely accessible and could not be obtained by directly contacting the author. This left us with a total of 41 papers of which three dissertations and 38 peer-reviewed journal articles. A snowball search on this literature and the additional Google Scholar search resulted in the inclusion of another four papers (respectively three snowball inclusions and one Google Scholar inclusion). In total, we analyzed the content of 45 papers addressing teachers’ intercultural competences in pre-service preparation programs (22 papers) and in-service professional development interventions (23 papers).

4.3. Data extraction and analysis

All 45 papers were first coded in terms of the main

characteristics of the study such as their sample, the design of the study, targeted diversity, type of professional development, and main outcomes (see Table 2). To answer the research questions, coding followed the conceptual PD framework as presented in Fig. 1. With regard to the characteristics of the learners and context, we coded basic information such as the number of participants, country of origin, educational setting (early childhood vs primary education), type of teacher (teachers vs student teachers), any available information on the teachers’ background (e.g., nationality, years of experience) and if the intervention had a more universal approach towards diversity or whether it was targeting specific groups of children/families or teachers. For the second key component concerning the content and focus, we used an open coding approach to gain insight in how these studies defined intercultural competences. In addition, we coded if the focus of the intervention was on cultural or linguistic diversity (or a combination) and whether it addressed knowledge, skills or belief systems (or a combination). Concerning the PD strategies and delivery modes, we followed the classification of Parkhouse et al. (2019) to determine the use of 9 PD experiences: workshop, action research, immersion experience, community of practice, coaching, self-rating, video-feedback, critical friendships, online component. In addition, we coded to what extent the PD was embedded within an organization, individual or team-based, and who was responsible for the implementation.

Regarding the second research question, we coded to what extent studies reported on the wider context in which the PD took place and how this might have affected the outcomes of the study. As we hypothesized that this type of information is less often reported, we adopted a more open coding strategy. For the third research question regarding the intra-individual level, we listed the effects of the studies and coded if change was measured at the level of the teacher (i.e., knowledge, skills or belief systems), the

Table 2
Main characteristics of studies included in the review.

Study	Participants	Study design	Diversity	Professional development	Outcomes
Affolter (2017)	In-service, PE ¹ , US, N = 23 professionals ²	Mixed-method, repeated measures design	Universal, mainly cultural diversity	TB ³ ; Workshop, community of practice, self-rating	Teacher and classroom level ⁴ ; PD increased self-awareness, humility, and knowledge on useful culturally responsive strategies, and decreased discomfort feelings regarding diversity. There is a gap between perceived teacher beliefs and actual behavior.
Álvarez Valdivia & González Montoto, 2018	In-service, PE/ECEC, Spain, N = 8 teachers	Mixed-method	Universal, mainly cultural diversity	TB; Workshop, self-rating	Teacher level; There is a gap between explicit and implicit acceptance of diversity. Teachers tend to overestimate their level of cultural sensitivity. PD raised awareness on the topic.
Behizadeh et al. (2019)	Pre-service, PE, US, N = 11 student teachers	Qualitative	Universal, mainly cultural diversity	GB; Workshop, community of practice, critical friendship, online component	Teacher and classroom level; PD helped teachers reframe cultural problem situations from a different perspective. Regarding behavior this reframing sometimes resulted in teachers choosing not to act on a situation but to change their attitudes on whether the situation was indeed problematic or not.
Bennett (2012)	Pre-service, PE, US, N = 8 student teachers	Qualitative	Universal, cultural and linguistic diversity	GB; Workshop, immersion experience, coaching	Teacher level; Especially field experience increases teachers' understanding of culturally responsive practices, however, supporting students in connecting course content and practice is necessary for effective enactment.
Biasutti et al., 2019	In-service, PE, Italy, N = 53 teachers	Qualitative	Targeted, cultural and linguistic diversity	GB; Workshop, critical friendship	Teacher level; PD increased awareness of the importance of an intercultural approach. Also knowledge and skills increased.
Bodur (2012)	Pre-service, PE, US, N = 88 student teachers	Mixed-method, cross-sectional design	Targeted, cultural and linguistic diversity	IB; Workshop, immersion experience, self-rating	Teacher level; Students who already completed the PD intervention report better attitudes, deeper understanding of the concept of diversity and are more aware of their own role as a teacher.
Bradshaw et al. (2018)	In-service, PE, US, N = 158 teachers	Quantitative, RCT design	Universal, mainly cultural diversity	IB; Workshop, coaching	Teacher, classroom and child level; All teachers improved on skills and self-efficacy, yet no significant difference was found between the teachers who received additional coaching and those who did not. All teachers showed better classroom management and responsiveness, though stronger effects were found for the teachers who received additional coaching. At the child level, coached teachers report less disciplinary referrals of African-American children after the intervention.
Brown et al. (2016)	In-service, PE/ECEC, US, N = 2 teachers	Qualitative	Universal, cultural and linguistic diversity	GB; Workshop, video feedback, self-rating	Teacher and classroom level; PD increased knowledge and awareness. Less progress in skills as a result of lack of enactment. Teachers felt not empowered enough to implement new knowledge and skills.
Carter Andrews (2009)	Pre-service, PE, US, N = 21 student teachers	Qualitative	Targeted, mainly cultural diversity	IB; Workshop, immersion experience	Teacher level; PD increased awareness of unique experiences of children and actively building relationships compared to assuming similarities merely because you have a similar (cultural) background. PD shifted teachers perspective from helping children to empowering children.
Cinelli and Jones (2017)	Pre-service, PE, Australia, N = 27 student teachers	Qualitative	Targeted, cultural and linguistic diversity	IB; Workshop, immersion experience	Teacher level; PD increased awareness on the importance of culturally responsiveness in education. Skills, specifically communication skills with linguistically diverse children, improved as well.
Daniel and Pray (2017)	In-service EP ⁵ , PE, US, N = 2 teachers	Qualitative	Targeted, mainly linguistic diversity	IB; Workshop, immersion experience, coaching, video feedback, self-rating	Teacher and classroom level; PD changed belief systems and increased sociocultural awareness. Reflection on own practice via video feedback increased skills as well and resulted in more inclusive classroom practices such as celebrating diverse holidays and incorporating children's home language in the classroom.
Dejaeghere and Cao (2009)	In-service, PE, US, N = 86 teachers	Quantitative, repeated measures design	Universal, cultural and linguistic diversity	TB; Workshop, self-rating	Teacher level; Gap between explicit and implicit acceptance of diversity. Teachers tend to overestimate their level of cultural sensitivity. PD raised awareness on this and both implicit and explicit sensitivity improved over time.
Ebersole et al. (2016)	In-service EP, PE, US, N = 9 teachers	Qualitative	Universal, mainly cultural diversity	GB; Workshop	Classroom level; PD resulted in an increase of culturally responsive practices reported in teacher action plans. However, teachers were not always able to distinguish between being a culturally responsive teacher and doing culturally diverse activities. Teachers seem to lack critical reflection and tend stick to a rather superficial interpretation of diversity and inclusiveness.
Fokaidou and Hadjitheodoulou-Loizidou (2014)	In-service, ECEC, Cyprus, N = unknown number of professionals in one school	Qualitative	Targeted, mainly linguistic diversity	TB; Workshop, community of practice	Teacher, classroom and child level; PD increased repertoire of strategies of teachers to involve linguistically diverse children during book reading activities. As a results, children were more involved during reading activities and showed greater understanding of the content of the story.

Table 2 (continued)

Study	Participants	Study design	Diversity	Professional development	Outcomes
Groulx and Silva (2010)	Pre-service, PE/ECEC, US, N = 28 student teachers	Quantitative, repeated measures design	Targeted, mainly cultural diversity	GB; Workshop, immersion experience	Teacher level; Teacher beliefs became more positive towards the use of materials that represent diversity and the inclusion of diverse perspectives. An increase in efficacy feelings was found as well.
Haddix (2008)	Pre-service, PE, US, N = 2 student teachers	Qualitative	Universal, cultural and linguistic diversity	GB; Workshop, self-rating, online component	Teacher level; Teachers viewed themselves as culture-less and language-less (diversity is something of the others). PD increased awareness regarding cultural and linguistic diversity, yet teachers showed less awareness of their own cultural background than anticipated.
Hardin et al. (2010)	In-service, ECEC, US, N = 48 teachers	Mixed-method, repeated measures design	Targeted, cultural and linguistic diversity	GB; Workshop, coaching, self-rating	Teacher and classroom level; PD led to improvement of the physical environment and more diverse classroom materials, resources and practices. Attitudes did not improve, which could be related to the short duration of the intervention.
Hasslen and Bacharach (2007)	Pre-service, ECEC, US, N = 15 student teachers	Mixed-method, repeated measures design	Universal, mainly cultural diversity	GB; Workshop, immersion experience, coaching	Teacher level; Student teachers felt more prepared to interact with diverse children and families.
He et al. (2017)	In-service, PE, US, N = 12 teachers	Mixed-method, repeated measures design	Targeted, cultural and linguistic diversity	IB; Workshop, immersion experience, coaching, self-rating, online component	Teacher level; Immersion experience can be effective in changing teachers' attitudes if reflection and enactment are guided during the PD.
Iwai (2019)	Pre-service, PE/ECEC, US, N = 25 student teachers	Mixed-method, repeated measures design	Universal, cultural and linguistic diversity	GB; Workshop	Teacher level; Teachers became more knowledgeable on culturally responsive teaching and multicultural literature. Teachers also felt more prepared using multicultural literature.
Jones and Browne (2015)	In-service, ECEC, US, N = 4 teachers	Qualitative	Targeted, mainly cultural diversity	GB; Workshop, self-rating	Teacher level; Teachers started from a color-blind perspective with no knowledge on the importance of culturally responsive teaching. PD increased knowledge and awareness.
Kidd et al. (2008)	Pre-service, ECEC, US, N = 19 student teachers	Qualitative	Universal, mainly cultural diversity	GB; Workshop, critical friendship, immersion experience, coaching	Teacher level; PD changed teachers' attitudes. Home visits to families did not only impact knowledge about these families but results in learning from families as well.
Kyles and Olafson (2008)	Pre-service, PE, US, N = 15 student teachers	Mixed-method, repeated measures design	Targeted, mainly cultural diversity	IB; Workshop, immersion experience, self-rating	Teacher level; No change in efficacy feelings over time. Student teachers were able to formulate their beliefs, but not everyone critically reflected on them and was able to deconstruct beliefs in order to reach a deeper understanding of the concept of multicultural education.
Lazar and Offenberg (2011)	In-service EP, PE, US, N = 54 teachers	Qualitative, design with control group	Targeted, mainly cultural diversity	GB; Workshop	Classroom level; Teachers that followed the summer course more often addressed explicit racism in their lesson plans. No differences were found for how teachers indicated they would address this.
Leeman and Van Koeven (2019)	In-service EP, PE, Netherlands, N = 6 teachers	Qualitative	Targeted, cultural and linguistic diversity	GB; Workshop, critical friendship, immersion experience, coaching, self-rating	Teacher level; Increase in awareness regarding multilingualism. Feeling multilingual discomfort (PD was not thought in L1 of teachers) supported in this awareness. No changes in practices due to lack of teacher agency within schools.
Lenski et al. (2005)	Pre-service, PE, US, N = 28 student teachers	Qualitative	Universal, cultural and linguistic diversity	GB; Workshop, critical friendship, immersion experience	Teacher level; Increased awareness on own cultural background and beliefs. Teachers indicate that new knowledge on different cultural traditions would be included in the classroom.
Lin and Bates (2015)	Pre-service, ECEC, US, N = 28 student teachers	Qualitative	Universal, mainly cultural diversity	GB; Immersion experience	Teacher level; PD showed impact on social attitudes and understanding of socio-economically disadvantages. Several student teachers expressed a stronger desire to work with disadvantaged families.
Manburg et al. (2017)	Pre-service, PE/ECEC, US, N = 193 student teachers	Mixed-method	Universal, cultural and linguistic diversity	TB; Community of practice, online component	Teacher level; PD resulted in growth in judgement skills and self-efficacy. Students also developed professional identity and empathy, leadership skills and communication skills. Finally, an increased awareness of ethics and critical thinking was reported.
McGrady (2017)	In-service, PE, US, N = 11 professionals	Mixed-method	Universal, cultural and linguistic diversity	TB; Workshop, self-rating	Teacher level; Teachers were satisfied with PD, however, the short duration of the intervention left less time for deeper reflection on the topic of diversity.
McMillon (2009)	Pre-service, PE, US, N = 40 student teachers	Qualitative	Targeted, mainly cultural diversity	IB; Immersion experience	Teacher and child level; Student teachers were more motivated to teach in an urban school context and strengthened their overall culturally responsive mindset. Children that wrote the teachers were more motivated to attend college themselves.

(continued on next page)

Table 2 (continued)

Study	Participants	Study design	Diversity	Professional development	Outcomes
Monroe and Ruan (2018)	Pre-service, ECEC, US, N = 22 student teachers	Mixed-method, repeated measures design	Universal, mainly cultural diversity	IB; Workshop, self-rating	Teacher level; PD improved interaction engagement and increased awareness of other's perspectives. Majority of results demonstrated lower levels of cultural sensitivity (focused at superficial diversity characteristics) of teachers even after the intervention.
Moore (2016)	In-service, PE, US, N = 38 teachers	Mixed-method, repeated measures design with control group	Universal, mainly cultural diversity	TB; Workshop	Teacher level; Experimental group improved on multicultural attitudes and competences.
Moule and Higgins (2007)	Pre-service, PE, US, N = 13 student teachers	Mixed-method	Targeted, cultural and linguistic diversity	IB; Workshop, immersion experience, coaching	Teacher and child level; Children showed higher percentages of on task behavior and increased understanding of content. Student teachers improved on culturally responsive practices as well, though growth was most visible for White students that were matched to Black mentor teachers.
Pence and Macgillivray (2008)	Pre-service, PE, US, N = 15 student teachers	Qualitative	Universal, cultural and linguistic diversity	IB; Workshop, immersion experience, coaching	Teacher level; PD increased overall confidence, resulted in better appreciation of and respect for different cultures. Moreover, student teachers became more aware of the importance of reflection.
Polat et al. (2019)	Pre-service, PE/ ECEC, US, N = 74 student teachers	Quantitative, repeated measures design with control group	Targeted, mainly linguistic diversity	GB; Workshop, immersion experience, coaching, online component	Teacher level; Both PD condition groups improved, but student teachers included in the Epal group scored higher on several beliefs: inclusion, responsibility for academic and language achievement. Moreover, these student teachers increased on culturally responsive teaching.
Psalti (2007)	In-service, PE, Greece, N = 70 teachers	Mixed-method	Universal, mainly cultural diversity	GB; Workshop, self-rating	Teacher level; Teachers indicated they learned new knowledge and skills (specifically regarding communication with diverse students), though their overall growth was less than they hoped.
Spies et al. (2017)	In-service, ECEC, US, N = 98 teachers	Mixed-method, repeated measures design	Targeted, mainly linguistic diversity	TB; Workshop, community of practice, critical friendship	Teacher and classroom level; Teachers changed beliefs regarding children's home language and the role of the family. More linguistic practices during instruction and learning were reported as well.
Symeou and Karagiorgi (2018)	In-service, PE, Cyprus, N = 17 professionals	Qualitative	Targeted, cultural and linguistic diversity	TB; Workshop, community of practice	Teacher level; Teachers reported an increase in awareness and knowledge, but indicated they still lack sufficient knowledge, skills and confidence to adequately teach diverse children.
Szente (2008)	Pre-service, PE, US, N = 105 student teachers	Qualitative	Universal, cultural and linguistic diversity	IB; Workshop, immersion experience	Teacher level; Student teachers reported most growth on the pedagogical understanding of culturally responsive teaching.
Turnšek (2013)	In-service ED, ECEC, Slovenia, N = 52 teachers	Quantitative, repeated measures design with control group	Universal, mainly cultural diversity	GB; Workshop, self-rating	Teacher level; PD improved teachers' skills to recognize explicit and implicit knowledge (both over time and in comparison with the control group). Similar results were found for multicultural attitudes.
Van der Wildt et al. (2017)	In-service, PE, Belgium, N = 528 professionals	Quantitative, repeated measures design with control group	Targeted, mainly linguistic diversity	TB; Community of practice, coaching, online component	Classroom level; PD resulted in the tolerance and use of multilingualism practices for the schools included in the experimental group.
Vesely et al. (2017)	Pre-service, ECEC, US, N = 82 student teachers	Qualitative	Universal, mainly cultural diversity	GB; Workshop, immersion experience, self-rating	Teacher level; After PD student teachers were more focused on commonalities between them and diverse families instead of their differences. They also became more aware of their own cultural biases, though understanding of the concept diversity still focused on rather superficial characteristics.
West-Olatunji et al. (2008)	In-service, PE/ ECEC, US, N = 3 teachers	Qualitative	Targeted, mainly cultural diversity	GB; Community of practice, action research, coaching, online component	Teacher and classroom level; All teachers reported new knowledge and increased feelings of empowerment. Culturally awareness became more apparent in their research questions and lesson plans.
Wiggins, Follo, and Eberly (2007)	Pre-service, PE, US, N = 62 student teachers	Quantitative, repeated measures design with control group	Universal, mainly cultural diversity	GB; Workshop, immersion experience	Teacher level; Both groups showed an increase in attitude scores, though the PD group showed stronger effects.
Zembylas (2008)	In-service EP, PE, Cyprus, N = 22 teachers	Qualitative	Universal, cultural and linguistic diversity	GB; Workshop, self-rating, online component	Teacher level; Online environment for reflection on own emotion and attitudes towards diversity proved to be effective.

Note. ¹PE refers to primary education institutions, whereas ECEC refers to early childhood education and care centers. ²The intervention included other types of professionals (e.g., school director or counselor) besides teachers. ³ IB = Individually-based PD; TB = Team-based PD; GB = Group-based PD. ⁴Teacher level refers to teachers' knowledge, skills, belief systems and satisfaction; Classroom level refers to teacher behavior and classroom practices; Child level refers to child outcomes and development. ⁵Educational programs such as specialized master degree programs or post-graduate education aimed at in-service teachers.

classroom (i.e., classroom practices, pedagogy) or the child (i.e., child development). In addition, we used an open coding approach to gain insight in the role of enactment and reflection as facilitators of change. Lastly, we coded some additional information on the design of the study to gain insight in the quality of the research in this field.

5. Results

In line with finding of Parkhouse et al. (2019) the papers we included show as many differences as similarities and we came across a wide variety of professional development efforts aimed to improve teachers' intercultural competences. First, we present our results on the key components of PD and evaluate the differences and similarities between pre-service teacher preparation and in-service PD. Second, we describe to what extent the wider context impacts the effectiveness of PD in these papers. Third, we address the underlying mechanisms, reflection and enactment, and its role in enhancing intercultural competences. Finally, we briefly summarize the literature in terms of the main study characteristics (e.g., design, samples, measurements) to provide more insight in the methods used to study the effectiveness of PD and to suggest directions for future research.

5.1. RQ 1: differences and similarities between pre-service and in-service PD

Characteristics of learners and context. An overview of several main characteristics of the 23 in-service and 22 pre-service interventions is provided in Table 2. In-service PD primarily took place in primary education settings (65%) compared to early childhood settings (22%) such as Pre-K or day care centers. In three papers, teachers from both primary education and early childhood were included (i.e., Álvarez Valdivia & González Montoto, 2018; Brown, Weber, & Yoon, 2016; West-Olatunji, Behar-Horenstein, Rant, & Cohen-Phillips, 2008). Interventions targeting student teachers were also more often focused at students planning to work in primary education (59%) compared to early childhood settings (23%). Three papers included both types of student teachers (i.e., Groulx & Silva, 2010; Iwai, 2019; Manburg, Moore, Griffin, & Seperson, 2017; Polat, Mahalingappa, Hughes, & Karayigit, 2019). In half of the in-service PD papers (48%) participating teachers were primarily white, monolingual, middle class females (which reflects the dominant teacher population in the US and many Western European countries), whereas other papers (39%) included teachers with other backgrounds (e.g., multilingual teachers, Hispanic or African-American teachers or mixed-ethnicity teachers). In contrast, in the pre-service literature participating student teachers were primarily white, monolingual, middle class females in most of the papers (82%). Four papers (three in-service and one pre-service) did not report on the background of the teacher. Furthermore, half of the in-service PD interventions (48%) had a universal approach towards diversity, whereas the other interventions targeted specific groups, such as bilingual children or English language learners (e.g., Fokaidou & Hadjithiodoulou-Loizidou, 2014), African-American children (e.g., Jones & Browne, 2015), refugees (e.g., Leeman & Van Koeven, 2019) or Roma families (i.e., Symeou & Karagiorgi, 2018). The percentage of papers that had a universal approach was slightly higher for the pre-service literature (64%). Nonetheless, both in-service and pre-service interventions with a universal or a targeted approach often took place in settings with a high share of culturally and linguistically diverse children.

Content and focus. All included papers targeted teachers' intercultural competences (IC), however, there is a wide variety of

definitions of what such competences entail. Moreover, there are large differences in the extent in which authors explicated the term within their theoretical framework. For instance, Álvarez Valdivia and González Montoto (2018) argued that this line of research falls within the broader category of inclusive education and that IC refers to "the ability to change cultural perspective and adapt behavior to deal with cultural differences" (p. 511) and starts with intercultural sensitivity. Other authors are much less explicit and explained IC as preparedness for teaching in highly diverse settings and having multicultural perspectives (i.e., Moule & Higgins, 2007). Within the in-service literature, most papers defined IC in terms of culturally responsive teaching or pedagogy (Gay, 2002; Ladson-Billings, 1995) or as intercultural sensitivity (Bennett, 2004). Within the pre-service literature these definitions were used as well, though definitions along the line of multicultural education (Banks, 2004) and social justice education (e.g., Lin & Bates, 2015) were also common. In addition, for both in-service and pre-service literature the majority of the interventions was focused at cultural diversity (46%) or both cultural and linguistic diversity (42%). A primary focus on linguistic diversity was less common with only four in-service papers (i.e., Daniel & Pray, 2017; Fokaidou & Hadjithiodoulou-Loizidou, 2014; Van der Wildt, Van Avermaet, & Van Houtte, 2017; Spieps, Lyons, Huerta, Garza, & Reding, 2017) and one pre-service paper (i.e., Polat et al., 2019) specifically targeting this type of diversity. Finally, we coded if interventions were targeting teachers' knowledge, skills, or belief systems, which showed different patterns for in-service and pre-service literature. The vast majority of in-service papers (70%) took a rather holistic approach targeting knowledge, skills and belief systems, whereas this was the case for only 36% of the pre-service papers. Pre-service papers reported relatively often a combination of knowledge and skills (23%) or skills and belief systems (23%).

PD strategies and delivery modes. In line with the results of Parkhouse et al. (2019) and Schachter (2015), a wide range of (combinations of) PD strategies (23 individual patterns) were used, though some combinations were more common than others. For both in-service and pre-service interventions a combination of two (38%) or three (36%) strategies was most common. A workshop or training element was the most frequently reported strategy. In four papers (i.e., Ebersole, Kanahale-Mossman, & Kawakami, 2016; Iwai, 2019; Lazar & Offenber, 2011; Moore, 2016) this strategy was used exclusively, but more often it was combined with one or more other strategies. For the in-service literature a combination with some form of self-rating was rather frequently reported (56%). Self-rating methods ranged from quantitative inventories (i.e., Intercultural Development Inventory [IDI] in Álvarez Valdivia & González Montoto, 2018; Dejaeghere & Cao, 2009) to more qualitative reflections on one's belief systems via narratives (i.e., Jones & Browne, 2015). A combination of a workshop and this latter form of self-rating was also reported in several pre-service papers (23%), though a combination with an immersion experience was more common (68%). Immersion experience, which can refer to field experience (e.g., Bennett, 2012), home visit (e.g., Vesely, Brown, & Mehta, 2017) or international practicum (e.g., Cinelli & Jones, 2017), was the second most reported used strategy in pre-service papers (77%). The third most used strategy was coaching or mentoring, which appeared in almost one third of both the in-service and pre-service papers. Other strategies, such as communities of practice (18%), critical friendships (13%), action research (2%) and video feedback (4%), were less common. Finally, an online component was used in 18% of the interventions and included activities such as online pen pal programs between teachers and culturally diverse children (i.e., Polat et al., 2019), computer simulated classroom dilemma's (i.e., Manburg et al., 2017), online

teaching content (i.e., Van der Wildt et al., 2017) and online communication in critical friendship groups (i.e., Behizadeh, Thomas, & Behm Cross, 2019).

Concerning the delivery, for the vast majority (89%) of in-service and pre-service papers PD was fully implemented by someone outside the classroom. Moreover, this external trainer who provided the PD was usually the author of the paper. For the other five papers the responsibility for implementation was shared between an external trainer and an experienced teacher within the school (i.e., Cinelli & Jones, 2017; He, Lundgren, & Pynes, 2017; Moule & Higgins, 2007; Pence & Macgillivray, 2008) or the participating teachers themselves (i.e., West-Olantunji et al., 2008). Furthermore, in-service PD was fully or partially embedded within the organization in over half of the papers (61%). Here, embedded means that PD was adapted to or specifically designed for teachers' needs and practices (e.g., Bradshaw et al., 2018; Van der Wildt et al., 2017), and/or PD meetings and activities took place within their own school or classroom (e.g., Affolter, 2017; McGrady, 2017). In-service PD that was not embedded usually consisted of external workshops or training programs (e.g., Biasutti, Concina, & Frate, 2019; Jones & Browne, 2015; Psalti, 2007). Such interventions were more common in the pre-service literature where the majority of the interventions was not or only partially embedded within actual practice (82%). In line with these results, there appeared a different pattern regarding team-based or individual PD. Team-based PD is more common in in-service literature (39% vs 5% in pre-service interventions), whereas individual PD is more common in pre-service settings (41% vs 13% in in-service interventions). A third category that was coded, group-based PD, conveyed approximately half of the cases in both in-service (48%) and pre-service (54%) literature. Group-based was coded if the PD was organized for a group of teachers but had a focus on individual learning rather than collective learning (e.g., Brown et al., 2016; Haddix, 2008; Kidd, Sánchez, & Thorp, 2008; Lazar & Offenberg, 2016). Finally, the duration and intensity of the interventions varied greatly, ranging from two 1.5-h sessions (i.e., Moore, 2016) to multiple year training programs (i.e., Kidd et al., 2008).

Cross examination of key components. When examining how the key components in interventions are related, some additional patterns emerged. For instance, interventions that reported communities of practice that were embedded within the organization tend to target knowledge, skills and belief systems simultaneously (e.g., Affolter, 2017; Spies et al., 2017; Van der Wildt et al., 2017). Regarding the 18 papers that included some form of self-rating a focus on teachers' belief systems was apparent in 89% of the cases. This focus on belief systems was, in general, more common in ECEC interventions (100%) compared to interventions in primary education settings (71%). Furthermore, coaching as a PD strategy was either used in rather lengthy trajectories of at least six months (e.g., Bradshaw et al., 2018; Daniel & Pray, 2017; Leeman & Van Koeven, 2019) or in short but intensive full-time immersion experiences (i.e., He et al., 2017; Pence & Macgillivray, 2008). Finally, no differences were visible for interventions that targeted specific groups versus interventions with a more universal approach towards diversity. However, interventions that specifically focused on linguistic diversity were mostly in-service interventions that used communities of practice embedded in the organization (i.e., Fokaidou & Hadjitheodoulou-Loizidou, 2014; Spies et al., 2017; Van der Wildt et al., 2017).

5.2. RQ2: The impact of the wider context

As hypothesized, not all papers addressed the role of the wider context in which PD took place, which could indicate that the role

of the wider context is either not recognized within the intervention, or not considered important enough to report on. The majority of pre-service papers and over a third of the in-service papers barely addressed this topic. Nonetheless, the articles that did report on the wider context showed that the context has an important impact on the effectiveness. Several studies indicated how the intervention was adapted to align with the local context and attributed part of its effectiveness to this alignment. For instance, five papers explicitly mentioned that resources were made available for PD either at the school level (e.g., Álvarez Valdivia & González Montoto, 2018) or school district level (i.e., DeJaeghere & Cao, 2009; Hardin et al., 2010) that supported the implementation. In addition, eight papers addressed how a needs assessment was conducted before the start of the intervention or during the first meeting. For instance, Symeou and Karagiorgi (2018) interviewed both teachers and Roma parents to understand their PD needs and adapted the intervention to these needs. Other studies used quantitative measures to establish teachers' needs, such as their intercultural sensitivity (i.e., Álvarez Valdivia & González Montoto, 2018; DeJaeghere & Cao, 2009), self-efficacy (i.e., McGrady, 2017) or attitudes and practices (i.e., Van der Wildt et al., 2017). Moreover, we found that several studies addressed the context from a negative perspective, indicating that a mismatch between the intervention and the wider context could explain a lack of effectiveness. For instance, six studies referred to a lack of resources, either in terms of time available to follow PD and implement new practices (e.g., Biasutti et al., 2019; Brown et al., 2016) or in terms of insufficient culturally responsive materials (i.e., Daniel & Pray, 2017; Spies et al., 2017). In two studies, a lack of differentiation regarding participants' needs was mentioned as a downside of the intervention (i.e., Biasutti et al., 2019; Spies et al., 2017).

Another finding concerns the inclusion of key figures in the organization and the extent to which PD is aligned with local or national policies. Only four papers indicated that school leaders or counsellors were included in the intervention. In three studies this was related to IC policies at the school district level and in one study to policy at the national level. Affolter (2017) evaluated a PD intervention that was organized as a result of a district-wide policy to enhance teachers' culturally responsive teaching and equip them with an equity-focused mindset. The school director, counselor and a special equity team within the school were therefore included in the intervention. The intervention of McGrady (2017) took place in light of a decision made by the school district to lift cultural proficiency given the recent influx of culturally and linguistically diverse learners. The school counselor, who is responsible for the implementation of PD in general, was included in the intervention. In the study by Fokaidou and Hadjitheodoulou-Loizidou (2014) the school director was involved and national policies on the use of parallel language instruction for Greek second language learners guided the design of the intervention. In contrast, in the study by Van der Wildt et al. (2017) key figures were included not as a result of policy choices, but as a means to change school policies. School leaders were supported in composing effective school policies regarding multilingualism in order to ensure that newly trained teacher skills and practices could be effectively incorporated in everyday school life.

Including key figures and adapting policy seems especially necessary for interventions focusing on linguistic diversity. Whereas Van der Wildt et al. (2017) and Fokaidou and Hadjitheodoulou-Loizidou (2014) show how this can positively impact PD effectiveness, some other studies expressed the negative consequences of not including key figures. Teachers in the intervention of Daniel and Pray (2017) expressed great personal growth in knowledge, skills and belief systems regarding English language

learners. However, their schools operated by an English-only language policy and therefore the newly acquired culturally responsive approach contradicted the curriculum in some ways. Teachers indicated that explicitly ignoring the curriculum and school policy felt like cheating. In addition, teachers were held accountable for their students' achievement, which reflected the curriculum, and were therefore forced to return to their old teacher-centered practices in which there was no room for students to use their home language in the school context. A similar result was found in the study by [Leeman and Van Koeven \(2019\)](#) with teachers working in schools with high percentages of refugee children. School policies focused on acquiring the Dutch language as fast as possible, which contrasted the newly acquired knowledge and skills within the PD intervention. Teachers expressed a lack of teacher agency, which limited them in changing their practices. Moreover, they expressed that they were unable to convince other teachers and establish any change beyond their own classroom, which further limited the impact of the intervention. Lastly, this lack of empowerment to implement new knowledge and skills in the classroom was also mentioned in the study by [Brown et al. \(2016\)](#).

5.3. RQ3: The role of reflection and enactment

The importance of reflection seems well established as 96% of the papers reported its use. However, there are large differences to what extent authors elaborate on this matter. Moreover, we found variation in the methods of reflection that were used and for what purposes. The most common methods of reflection were reflective journals or written assignments (especially in pre-service literature), focus group discussions, critical friendship groups and self-rating via standardized instruments (e.g., IDI). In most studies, reflection was used to help teachers evaluate their knowledge, skills, belief systems and practices at an individual level. This focus on the individual was especially apparent in the preservice literature with only one study using reflection to also enhance group learning (i.e., [Manburg et al., 2017](#)). In the in-service literature there were more examples of team-based reflection (e.g., [Affolter, 2017](#); [Leeman & Van Koeven, 2019](#); [Moore, 2016](#)), though the majority of the in-service interventions focused on the individual as well. For instance, the interventions of [Álvarez Valdivia and González Montoto \(2018\)](#) and [DeJaeghere and Cao \(2009\)](#) both used the IDI – an instrument that provides insight in someone's explicit and implicit attitudes towards diversity – to collectively reflect on the scores of the group as a whole. However, in these five interventions reflection was also used at an individual level.

Another difference concerns the extent to which teachers' reflection was actively guided by the trainer or merely expected to take place. Active guidance of reflection was more common in in-service literature, for instance in interventions that used coaching as a strategy (e.g., [Hardin et al., 2010](#)) or interventions that used self-rating methods (e.g., [McGrady, 2017](#)). In the pre-service literature there were more static forms of guidance in the form of reflective questions or assignment guidelines that were meant to foster reflection in teachers (e.g., [Hasslen & Bacharach, 2007](#); [Iwai, 2019](#)). However, some pre-service studies included reflection not only as a means to facilitate change, but as a goal on its own. For instance, [Behizadeh, Thomas, and Cross \(2019\)](#), [Lenski, Crawford, Crumpler, and Stallworth \(2005\)](#) and [Vesely et al. \(2017\)](#) explicated that critical reflection is a skill that needs to be mastered before teachers are able to critically examine their belief systems. Learning how to reflect was therefore an explicit part of their interventions. The importance of reflection as a skill has been negatively addressed in several other papers as well (i.e., [Kyles & Olafson, 2008](#); [Lin & Bates, 2015](#); [Monroe & Ruan, 2018](#);

[Zembylas, 2008](#)). These studies reported that to some extent the interventions had less impact than anticipated as teachers seemed to have a hard time reflecting critically on their own identity and belief systems. Active facilitation of this reflection process by the trainer thus seems important to effectively change teachers' belief systems.

A final observation concerned the focus of the reflection. In some interventions, teachers reflected on their own practices in order to reevaluate their skills and behavior (e.g., [Bradshaw et al., 2018](#); [Daniel & Pray, 2017](#); [Spies et al., 2017](#)). These studies demonstrated how such PD efforts can improve the use of home language in the classroom (i.e., [Daniel & Pray, 2017](#); [Spies et al., 2017](#)) or lead to higher teacher responsiveness and less disciplinary referrals of black children (i.e., [Bradshaw et al., 2018](#)). Yet, in many interventions reflection was used to target teachers' belief systems rather than actual practice or behavior (e.g., [Jones & Browne, 2015](#); [Lazar & Offenber, 2011](#); [Psalti, 2007](#); [Turnšek, 2013](#)). These studies used reflection to help teachers investigate who they are and to make them aware of how their own cultural background influences their practices. Though such methods seem effective in creating awareness on the importance of intercultural competences, many of these studies did not include measurements on the classroom or child level. Therefore, we lack sufficient information to conclude whether such a form of reflection is also effective for changing teacher behavior. Moreover, the effect of PD on actual intercultural practice is not merely dependent on teachers' reflection on their belief system, but on their ability to enact on these beliefs as well.

Whereas reflection played an important role in almost all interventions, this was not the case for enactment. In 42% of the papers, enactment was not addressed at all and in 24% of the papers, authors explained how a lack of enactment could have impacted the effectiveness of the PD in a negative way. For instance, in the study by [Symeou and Karagiorgi \(2018\)](#) teachers stated at the end of the intervention that, although they learned new knowledge and changed their beliefs regarding Roma families, they still felt unable to transfer these dispositions into actual practice. Similar results were displayed by [Bennett \(2012\)](#) who found that pre-service teachers had a hard time translating their new understanding of culturally responsive pedagogies into actual practice. In addition, the study by [Daniel and Pray \(2017\)](#) explicated how there was a lack of enactment in an earlier version of the intervention and therefore they added additional one-on-one coaching sessions. These coaching sessions explicitly focused on the enactment of the PD content and resulted in increased sociocultural awareness and more incorporation of children's first language in the school context. However, for some teachers this process of enactment was complicated due to organizational policies that were not compatible with the PD content. This negative impact of the wider context on enactment in terms of lacking resources (e.g., [Affolter, 2017](#); [Spies et al., 2017](#)) or organization's policy (e.g., [Brown et al., 2016](#); [Leeman & Van Koeven, 2019](#)) was addressed in other studies as well.

When looking at the papers that do address how enactment impacted the PD effectiveness, there appears a clear relationship with the design of the studies and researched dependent variables. The majority of studies (69%) did not investigate outcomes at the classroom or child level and the role of enactment was primarily discussed in studies that did include this level. For instance, in the intervention of [Hardin et al. \(2010\)](#) teachers were supported in their enactment by the trainer who helped them translate the newly addressed knowledge, skills and belief systems into classroom action plans. During coaching sessions these plans were evaluated and if necessary adjusted, which resulted in a significant improvement of an inclusive physical environment and culturally

responsive materials, resources and practices. Also, in the study by Fokaidou and Hadjitheodoulou-Loizidou (2014) enactment and reflection on its effectiveness was a facilitated part of the PD intervention. Their results show that the teachers acquired new strategies for engaging multilingual children during reading activities and that they indeed made more use of these strategies during book reading. As a result, children showed more engagement in the activities and a higher level of understanding of its content.

5.4. Research quality: measurements of effectiveness

Most included papers evaluated PD efforts in the US, especially the body of pre-service literature was almost exclusively dominated by US research (95%). Furthermore, the 45 papers showed great variation when it comes to design and sample size, ranging from single case studies including two teachers in two school settings (i.e., Brown, Babiak, Weber, & Yoon, 2016) to large scale PD interventions including more than 500 teachers in over 60 schools (i.e., Van der Wildt et al., 2017). Approximately 40% of the interventions could be considered small scale (15 teachers or less), whereas 29% was a large-scale intervention (50 teachers or more). Furthermore, qualitative measures of effectiveness, such as interviews and written assignments, were dominant with 51% of the studies using exclusively qualitative measures and 33% adopting a mixed-method approach. Moreover, all papers reported change based on self-reported teacher data (e.g., survey data on attitudes and practices, interviews or written reflective assignments), sometimes in combination with other sources of data. These other sources often included some form of expert judgement, which was often the reflection of the PD provider (i.e., researcher) on teachers' learning process and growth. Only a few papers included independent data sources such as observed classroom interaction (i.e., Lazar & Offenber, 2011; Bradshaw et al., 2018), classroom materials (i.e., Brown et al., 2016) or demographic student records (i.e., Bradshaw et al., 2018). Furthermore, the vast majority of studies (69%) investigated only teachers' change in knowledge, skills or belief systems or their satisfaction with the intervention. This was especially the case for the pre-service literature (86%). Classroom practices and teacher behavior were included in 27% of the studies and only 9% included outcomes at the child level. However, in many of these studies these conclusions were also based on self-reported data (e.g., self-reported practices, teachers' reflections on children's engagement and growth). Also, a repeated measures design was adopted in only 36% of the studies, with post-testing directly at the end of the intervention. None of the studies included delayed measurements, leaving questions regarding the long-term effectiveness of these programs. Finally, only 16% of the studies included an experimental design with the use of a control group. Overall, these observations taken together with the fact that over half of the included papers stem from the past five years show that the literature on this topic is still in a nascent stage.

6. Discussion

Our results indicate that there is a wide variety of PD efforts aiming to improve teachers' intercultural competences. Though all papers more or less indicate positive intervention effects, some efforts seem more effective than others. Based on our findings, we consider three elements most important when designing effective PD to enhance teachers' intercultural competences. Concerning the role of the wider context and the key components, as explicated in our theoretical PD model (see Fig. 1), our results stress the importance of an embedded and contextual approach. Regarding the underlying mechanisms of change, this review shows how guided critical reflection and sustainable enactment are a crucial part of PD

when it comes to improving teachers' intercultural competences.

6.1. Embedded and contextual approach

Our findings illustrate that PD interventions that are well embedded within the organization and wider context of the teacher are more likely to be effective. Teachers' practices are not merely influenced by their personal knowledge, skills, dispositions and goals, but are impacted by colleagues, professional networks, school policies and national discourses as well. Therefore, a universal one size fits all approach to professional development is less likely to make effective changes and when designing PD, a needs assessment on the teacher and context should be performed to take these external influences into account (e.g., McGrady, 2017). Moreover, well embedded PD does not consider the teacher as an individual agent within a school, but rather as part of a larger school community. A team-based strategy and the inclusion of key figures in the organization, such as directors or counselors, seem necessary to create an environment in which there is a place for new strategies and practices to be implemented (e.g., Fokaidou & Hadjitheodoulou-Loizidou, 2014). Yet, such interventions are still scarce. Finally, being well embedded and contextual refers to aligning the intervention with the needs of the local context (i.e., characteristics of teachers and the families and children they serve) and the wider context, especially in terms of resources and local and national policies. Resources such as time to follow and implement PD or inclusive and diverse classroom materials can function as important preconditions for effective change. In addition, school (district) and national policies can play an important role in communicating the importance of culturally responsive practices (e.g., DeJaeghere & Cao, 2010; Hardin et al., 2010). However, policies can also become a barrier for change when the predominant policy contradicts PD goals, which seems especially the case for linguistic diversity. More recent PD initiatives (e.g., Daniel & Pray, 2017; Lee & Van Koeven, 2019) that adopted a positive approach toward multilingualism showed that the current monolingual school discourse negatively affected the impact of the intervention. Interventions that therefore address such policies simultaneously and include key figures that have the agency to change such policies are more likely to show long lasting effects (e.g., Van der Wildt et al., 2017).

6.2. Guided critical reflection

Another point that is highlighted by our results is the importance of targeting teachers' belief systems when it comes to improving intercultural competences. The extent to which teachers are aware of social injustice in education, recognize their own cultural biases, and consider culturally responsive teaching important affects their overall readiness for change. As such, the input of new knowledge and active reflection on one's belief system seems a crucial element in facilitating change. However, not all forms of reflection seem effective and in order to reach a deeper understanding of the concept of diversity critical self-reflection and the openness to reevaluate your own core values and beliefs are necessary. Several interventions noticed a lack of this deeper level of understanding (e.g., Lin & Bates, 2015), which suggests that not all teachers possess such reflective skills automatically. PD that uses external and active guidance of this reflection process can change belief systems and help decrease discomfort with diversity or possible prejudice (i.e., Affolter, 2017). Guiding the reflective process seems more established in teacher preparation programs than in in-service PD interventions, though the guidance is sometimes rather passive (i.e., Hasslen & Bacharach, 2007; Iwai, 2019). Thus, effective PD should take in consideration that critical reflection is a

skill on its own and supporting teachers and student teachers in this is necessary (i.e., Behizadeh et al., 2019, Lenski et al., 2005; Vesely et al., 2017).

6.3. Sustainable enactment

Though a focus on teachers' belief systems is important, several studies show that the relationship between beliefs and practices is rather complex (e.g., Civitillo et al., 2018). There is a gap between teachers' implicit and explicit acceptance of diversity and teachers tend to overestimate their openness to others (i.e., Álvarez Valdivia & González Montoto, 2018; DeJaeghere & Cao, 2009). Moreover, how teachers assume they act and how they actually interact with children is not always aligned and thus changing teachers' belief systems does not automatically lead to changes in practices and behavior. Rather, this requires opportunities for teachers to enact on those changed beliefs. Our results show that this enactment and the transfer to classroom practices still lags behind, both in the interventions themselves as well as in the research into their effectiveness. The majority of studies only investigate the effects of PD on teachers' knowledge, skills and belief systems, but not the effects on actual practice or behavior. Nor do they measure if effects last over time. In addition, fostering enactment during or after the intervention is only mentioned in a few studies (e.g., Spies et al., 2017). At the same time, a lack of enactment due to organizational policies (e.g., Daniel & Pray, 2017), lack of teacher agency (e.g., Lee & Van Koeven, 2019) or simply because it could not be established within the PD intervention (e.g., Psalti, 2007) is often used to explain why interventions were less effective than anticipated. Translating newly acquired knowledge, skills and dispositions into new behavior and practices proved to be hard for both student teachers (e.g., Bennett, 2012) and more experienced teachers (e.g., McGrady, 2017). As the ultimate goal of PD is to support child wellbeing and development (Sheridan et al., 2009), an increased focus on supporting teachers in their enactment is necessary if we wish to establish long term effects and sustainable change.

6.4. Limitations

Though the current review gives an indication of important elements in professional development targeting intercultural competences, the overall research base seems far from sufficient to achieve clarity on what forms and features of PD effectively impact teacher outcomes and classroom practices. A great variation in study designs and research foci complicates evaluating effectiveness. The research interest in this topic has increased over the past few decades, but more rigorous studies are necessary to fully understand how professional development can foster the intercultural competences of teachers. Especially studies that focus on classroom practices and child outcomes or investigate delayed effects over time are necessary to support our conclusions.

A more general limitation of the current review concerns the search and inclusion of selected articles. A systematic of the literature was conducted, nonetheless, it is possible that studies that could have been included remained unidentified. Moreover, selection of the articles has been performed by the first author exclusively and only a subsample (10%) of the selected articles was double coded by the third author, resulting in an overall interrater reliability of 92%, ranging from 85% (key component how) to 100% (underlying mechanisms) for the different components of the study.

6.5. Implications and further directions

Overall, our results suggest that an embedded and contextual approach to professional development in which reflection is guided and enactment is fostered, is most likely to effectively increase teachers' intercultural competences. This requires a perspective on professional development as a team-based continuous process in which multiple methods of training and intensive on-going support is embedded within practice and adapted to the needs of the local context. Yet, one size fits all workshops and isolated courses in teacher preparation programs are still frequently implemented. Though the increased interest in improving teachers' intercultural competences is promising, if we really wish to provide equal learning opportunities for all children, regardless of their background, an even bigger investment in our current and next generation of teachers is necessary to achieve this.

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