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In pursuit of beginning teachers competent in promoting reading motivation: A mixed-methods study into the impact of a continuing professional development program

Abstract

As teachers' reading motivation and self-efficacy for promoting reading motivation can be considered vital for their reading-oriented promotive teaching practices and students' reading motivation, this study evaluated the impact of a year-long CPD program for beginning primary school teachers. A convergent parallel mixed-methods design with repeated measures was established, including a comparison and two CPD conditions (group vs. individually-oriented). Based on the quantitative results only no clear impact of and differences between the conditions could be observed. The qualitative analysis, however, showed growth in teachers' reading motivation and self-efficacy at a different pace and level of intensity for both CPD conditions.

1. Introduction

From the very start of their career, teachers need to have opportunities to engage in high-quality continuing professional development (CPD). Studies repeatedly point to its impact on several crucial factors in education, as for example the quality of teaching practices, teachers' retention in the profession, and students' academic achievement (Antoniou & Kyriakides, 2013; Borko, Jacobs, & Koellner, 2010; Prenger, Poortman, & Handelzalts, 2017). Such powerful CPD comes in different formats (e.g., formal or informal; in group or individually-oriented) and can either be focused on more general aspects of teaching (e.g., overall instructional practices) or be domain-specific (e.g., teaching reading). The focus of this study is on group or individually-oriented CPD aiming to foster beginning primary school teachers' reading motivation and self-efficacy regarding reading motivation promotion.

Reading is to be considered a core skill in education and society, as being a competent and motivated reader relates highly to academic and societal success (Sullivan & Brown, 2013). Throughout the years, the multidimensionality of this core skill has received attention in both educational practice and reading research (Afflerbach et al., 2013). More particularly, next to the cognitive aspects of reading (e.g., strategies for decoding and comprehending texts) (e.g., Concannon-Gibney & Murphy, 2012; Okkinga et al., 2018) also affective aspects (e.g., reading motivation and self-efficacy regarding promoting reading) (e.g., Author(s), 2014) have increasingly come to the fore. Contrary to the amount of research on students' reading motivation and on teachers' instructional practices to enhance that (Author(s), 2016a), the lack of research concerning teachers' reading motivation and self-efficacy regarding reading motivation promotion is surprising. Consequently, the present study will examine the impact of a year-long professional development program on teachers' reading motivation and self-efficacy beliefs regarding reading motivation promotion using a mixed-methods approach.

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Hereby aiming to foster promotive teaching practices and students' reading motivation as a result of these.

1.1. Continuing professional development

Studies show that teachers' CPD is a requirement to ensure high-quality education (Coe et al., 2014; Darling-Hammond et al., 2017; OECD, 2013). CPD can be considered as an ongoing learning process, where teachers are continuously motivated to reflect on their professional practice and persist in professionalizing themselves in order to improve their competences and, hence, these of their students (Fauth et al., 2019; Kelchtermans, 2004; Kennedy, 2014; Kunter et al., 2013). In view of high-quality CPD, well-designed CPD programs are required, which are based on strong theoretical and empirical research and which can be implemented with fidelity (Avalos, 2011). The widely used and referred to conceptual framework of Desimone (2009) integrates both a theory of change and instruction (Author(s), 2016b; Boston, 2013; Kang, Cha, & Ha, 2013; Labone & Long, 2016; Van Veen, Zwart & Meirink, 2012). This framework seems particularly interesting as it explicitly highlights the reciprocal relationship between five evidence-based core features of professional development (i.e., content focus, active learning, coherence, duration and collective participation) and increased teacher competence, change in instruction, and finally improved student learning. Desimone's model moreover refers to context (e.g., school, teacher and student characteristics) as a crucial element in each professional development program.

Notwithstanding the overall merit of the framework, however, Kennedy (2016) addresses the lack of explicit integration of a motivation theory into Desimone's model to support teachers' continuous engagement in a CPD program. For example, the integration of Self-

Determination Theory (SDT) (Ryan & Deci, 2000) on motivation might be appropriate regarding professional development (Guay et al., 2016). Some previous studies have shown that supporting teachers' autonomous motivation can be a core feature when wanting them to engage fully in professional learning activities (e.g., Power & Goodnough, 2018). Moreover, a recent meta-analysis on the effects of reading motivation interventions in particular (van Steensel et al., 2016) revealed that the majority of studies referred to SDT (Ryan & Deci, 2000) as the theoretical basis for their intervention. More specifically, SDT distinguishes between autonomous motivation (i.e., engaging in activities with a sense of willingness) and controlled motivation (i.e., engaging in activities with a sense of pressure or coercion) and states that one's autonomous motivation – as opposed to controlled motivation – should be fostered and nurtured. Considering the above and the present study's focus on reading motivation and its promotion, the developed CPD program integrated insights from SDT (Ryan & Deci, 2000) into the design of the core features of the CPD program (see Figure 1).

Insert Figure 1 about here

1.2. Focus on beginning teachers

Studies focusing on beginning teachers' (BTs') CPD state that the transition from being preservice to fully-fledged inservice teachers needs specific attention (Falk, 2014). More particularly, previous research pointed to BTs' first intense years of practice and professional learning (i.e., often referred to as induction phase) as challenging and crucial for both teacher retention and quality (Flores, 2001; Kupila & Karila, 2019). Attrition rates during the first years are quite high and have been a continuing concern for educational policy (Ingersoll & Strong, 2011). A various set of reasons for these drop-out rates have been raised, going from

beginning teachers feeling isolated and not supported in the school context (Craig, 2017; Eteläpelto, Vähäsantanen, & Hökkä, 2015) to a lack of competence and motivation for the profession (Fernet et al., 2016; Skaalvik & Skaalvik, 2010). Responding to this context, CPD specifically targeting at BTs appears to be crucial (Appova & Arbaugh, 2018; Hobson, Ashby, Malderez, & Tomlinson, 2009). As to teacher quality, previous CPD research focusing on BTs' autonomous motivation and self-efficacy in general showed the importance of both these affective teacher attributes when aiming to enhance teaching behavior and students' motivation (Fernet et al., 2016; George, Richardson, & Watt, 2018; Guay et al., 2016; Meristo & Eisenschmidt, 2014). Autonomous motivation then more specifically refers to the experience of a sense of volition and psychological freedom when engaging in an activity and to being the initiator of one's own behavior (Ryan & Deci, 2000). Self-efficacy concerns teachers' belief in their skills and capabilities to generate student learning and success, often explicitly related to their instructional practices, classroom management and student engagement (Bandura, 1994; Tschannan-Moran & Woolfolk Hoy, 2001). Although some studies posit that both motivation and self-efficacy are rather stable constructs, which do not change profoundly over time (Bandura, 1994; Ross, 1995), other studies point to their possible malleability and this more specifically during BTs' first years of teaching (George et al., 2018).

CPD programs for BTs often employ individually-oriented as well as a broad amount of group-oriented CPD approaches. These respectively apply school-based one-on-one mentoring to tackle BTs' individual needs and expectations (Bickmore & Bickmore, 2010; Bressman, Winter, & Efron, 2018) or stress the advantage for BTs to collaborate with a mixed group of colleagues from their school, regardless of their age or teaching (Fresko & Nasser-Abu Alhija, 2014; Valenčič Zuljan & Marentič Požarnik, 2014). Some studies, however, also

point to the added value for BTs to be part of a group of only novice teachers, collectively constituting a safe learning environment (Fox & Wilson, 2009; Tiplic, Brandmo, & Elstad, 2015). In view of the impact of both approaches, conflicting results appear in the literature. As to CPD programs with a group approach, some studies point to the difficulty of responding to the participants' individual needs as a possible explanation for a non-impact of the program (Clark, Schoepf, & Hatch, 2017). As the first years of teaching are determining for the following years in the profession in so many ways (Kupila & Karila, 2019; LoCasale-Crouch et al., 2016) and as there is no consensus on which CPD approach works best for BTs, the present study specifically focuses on BTs in their first years of teaching examining the possible differential impact of a CPD program that has the same content, but is delivered either in group or individually.

1.3. Teachers competent in promoting reading motivation

Learning to read and the development in the direction of reading to learn can be considered vital learning activities undertaken by students during their years at school (Author(s), 2019a; Chall, 1983; Petscher, 2010). In this respect, a large amount of research can indeed be found examining these issues, thereby mainly focusing on cognitive aspects of reading, such as phonemic awareness, phonics, fluency, or comprehension (Aro & Björn, 2015; Author(s), 2017; Reis et al., 2008; Wanzek et al., 2013). This is a justified focus given that these are crucial for students to become skillful and strategic readers (Author(s), 2020; van Bergen, Vasalampi, & Torppa, 2020). In the last decades, however, the relevance of also taking into account affective aspects of reading, such as reading attitude, reading motivation, and reading self-efficacy, has increasingly been emphasized both in research as in practice (e.g., Author(s), 2012; Guthrie et al., 2007; McGeown et al., 2015; McKenna et al., 2012; Park, 2011; Petscher, 2010; Retelsdorf, Köller, & Möller, 2011; Toste et al., 2020). It is

increasingly stated that both cognitive and affective aspects should be aimed at in education as pieces of a puzzle coming together (Taboada Barber & Klauda, 2020; Toste et al., 2020). This insight joins a growing body of studies, mostly related to primary and secondary education students, pointing to the reciprocal relationship between both aspects of reading (e.g., Author(s), 2011), whether or not mediated by reading behavior (i.e., often operationalized as reading amount or reading frequency) (Becker, McElvany, & Kortenbruck, 2010; Petscher, 2010; Schiefele et al., 2012; Stutz, Schaffner, & Schiefele, 2016). Additionally, this insight fits in with studies pointing to a steadily decline in students' reading motivation throughout primary and secondary education (McKenna et al., 2012; Smith et al., 2012), which can be considered reason for concern given the aforementioned reciprocal relationships.

The growing attention for the affective reading aspects in reading research has not only led to a growing amount of studies focusing on students in this area, but also on teachers as a target group. The latter studies mostly concentrate on enabling teachers to foster these affective aspects in their students via teachers' instructional practices (Author(s), 2014; Author(s), 2016a; Guthrie & Klauda, 2014; Neugebauer & Gilmour, 2019; Wigfield et al., 2008). This field for example consists of studies examining the impact of Concept-Oriented Reading Instruction (CORI), an instructional program which aims to integrate reading strategy instruction, conceptual knowledge, and support for students' reading motivation (Guthrie, McRae, & Klauda, 2007). The studies of Author(s) (2014, 2016a) on the other hand focus more on fostering teachers' autonomy-supportive and structuring teaching style during reading instruction and on the impact thereof on students' autonomous reading motivation. Notwithstanding the crucial value of this specific focus on teachers' promotive reading practices, the dearth of research addressing teachers' own affective reading aspects in

professional development programs after graduation, however, can be considered quite surprising. In line with the multidimensionality of reading (Afflerbach et al., 2013), research showed that a competent teacher should not only dispose of the adequate knowledge and skills, but also of the necessary attitude and motivation, also referred to as the affective-motivational dispositions underlying a teacher's behavior (Blömeke, Gustafsson, & Shavelson, 2015). The increasing body of studies focusing on teachers' motivation and self-efficacy in general pointed to the importance of these variables, because of their close relationship with teachers' instructional practices and students' achievement and motivation (Jang, Reeve, & Deci, 2010; Roth et al., 2007; Roth & Weinstock, 2013; Zee & Koomen, 2016). In addition, studies moreover explicitly point to the need to raise our domain-specific knowledge in this respect. Following Guay et al. (2010), motivation types proposed by SDT are specific to school subjects and Yu et al. (2015) provided further support for an argument already made by Bandura (1997) stating that self-efficacy as a motivational construct varies by domain and should be studied at the domain-specific level.

1.4. Aim of the present study

Overall and in light of the need to gain a more thorough understanding of the impact of well-designed CPD for BTs specifically related to the affective side of BTs' reading and reading motivation promotion, the present study's main aim is to examine the impact of a one year-long CPD program on BTs' reading motivation and self-efficacy regarding promoting reading motivation. More particularly, the differential impact of group and individually-oriented CPD (Clark et al., 2017; Horn et al., 2017) is explored by means of a mixed-methods approach.

2. Method

2.1. Research design

Mixed-methods designs provide a more complete understanding of the research topic as (1) this type of design facilitates data triangulation and complementarity (Greene, Caracelli, & Graham, 1989) across multiple sources of data leading to more comprehensive and coherent insights and (2) such a design appears to be most useful when aiming to examine the impact of professional development on beginning teachers' affective aspects as earlier studies showed its added value in view of demonstrating the complex and mediated nature of the relationship between a professional development program and changes in teachers' affective aspects, such as self-efficacy beliefs and motivation, changes in teaching behavior, and improved student learning and motivation (Desimone, 2009; Kintz et al., 2015). Therefore, this study applied a convergent parallel mixed-methods design with repeated measures (Creswell & Clark, 2010; Johnson, Onwuegbuzie, & Turner, 2007; Teddlie & Tashakkori, 2009). More specifically, (1) a separate quantitative and qualitative data collection was executed, (2) followed by a separate and independent quantitative and qualitative analysis, (3) the merging of both lines of data, and (4) finally an in-depth interpretation of both lines in view of the study's overall aim. Of a group of teachers who responded to an open call and volunteered to participate to the year-long CPD program ($N = 30$), 20 teachers were randomly selected to participate in the CPD conditions (i.e., respectively 10 in the CPD group and 10 in the CPD individual) and 10 were assigned to the comparison condition. At the start of the CPD program two BTs dropped out of the group condition because of personal reasons. As to the quantitative part, an online survey was used as a pre- and posttest (see Figure 2 for an overview of the data collection). The survey was filled out at home: (1) the pretest shortly before the CPD program started (i.e., September) and (2) the posttest after the program ended (i.e., June). For the qualitative part of the study, there were three measurement moments for

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both the group and individually-oriented condition. Both halfway through the program and immediately after the last CPD session, CPD-group members participated in a focus group and CPD-individual members participated in in-depth interviews. Finally, all participants participated in a written interview with open-ended questions as a follow-up, nine months after they completed the intervention program. The comparison condition only participated in the quantitative data collection as this group of BTs did not participate in the CPD program and hence no qualitative data regarding its impact could be gathered.

Insert Figure 2 about here

2.2. Participants

Participants ($N = 28$) were all BTs who were in their first or second year after graduating from a three-year professional teacher education bachelor program for primary education (180 credits). Table 1 presents an overview of the participants' background characteristics, such as gender, age, and teaching experience and relates this information to participants belonging to both CPD conditions (i.e., CPD group and CPD individual) and the comparison condition. All participating BTs held a temporary appointment of definite duration (i.e., not more than one school year) when entering the CPD program.

Insert Table 1 about here

2.3. Continuing professional development intervention

The development of the CPD intervention was based on combining Desimone's (2009) framework for effective professional development with Self-Determination Theory (SDT) (Ryan & Deci, 2000). Consequently, the CPD included the core features distinguished by Desimone (2009) (i.e., content focus, coherence, active learning, collective participation and duration) and the need for autonomy, competence and relatedness as put central as basic psychological needs in SDT (see fig. 1). The latter is particularly important taking into account the idea of congruent teaching, stressing to teach what you preach and to be a good model of the kind of teaching you want to promote in CPD (Aelterman et al., 2013; Author(s), 2016; Swennen, Lunenberg, & Korthagen, 2008). In this respect, using an SDT approach in CPD aims at and implies that participating teachers themselves (1) are being motivated throughout the program by nurturing their psychological needs for competence, relatedness, and autonomy and (2) increase their knowledge, skills, and self-efficacy beliefs regarding reading motivation promotion, given the specific content focus of the CPD program. The core features were all analytically described and operationalized before implementation with examples of facilitator's instructional activities and examples of participants' learning activities in the CPD program (see Table 2).

Table 3 provides insight in the implementation per session of the CPD program. More specifically, the following information is mentioned: content focus per session, goal per session, examples of input from participants sent to the facilitator before the session, examples of actions taken by participants and facilitator during the session, examples of plans for transfer shared by participants during the session, and examples of plans put into practice shared by participants during the following session(s). For more information on the CPD design and implementation check of the CPD program's see Author(s) (2019b). The CPD was implemented by the same facilitator in both CPD conditions.

2.4. Measures

2.4.1. Teacher survey

In view of the quantitative data collection an online teacher survey was administered before and shortly after the intervention via an email with a website link. Prior to administration, the survey was piloted with four reading professionals and four qualified teachers who provided feedback, which resulted in minor modifications in item wording and the removal of unclear items. BTs' reading motivation was measured by means of an adjusted version of the SRQ-Reading Motivation consisting of two subscales, namely autonomous and controlled reading motivation (Author(s), 2012). Each of the items was administered twice, namely with regard to reading for professional (e.g., reading of children's literature to use and promote in the classroom) and personal (e.g., reading without clear link to their profession, for example adult novels) reasons. BTs' self-efficacy regarding promoting reading was measured using the Ohio State teacher efficacy scale (Tschannen-Moran & Woolfolk Hoy, 2001). This scale consists of three subscales (i.e., self-efficacy for instructional strategies, for classroom management, and for student engagement). Without altering the original wording of the items, the scale was adjusted somewhat since the phrase "regarding promoting reading" was added. Table 4 gives an overview of the measures with example items, numbers of items per scale, Likert scale and Cronbach's α at pretest and posttest.

Insert Table 4 about here

2.4.2. Qualitative data collection

In addition to the survey, three qualitative data sources were used: Both at pretest and posttest focus groups (video- and audio-recorded) and in-depth interviews (audio-recorded) were organized in respectively the CPD group condition and individual condition. Nine months after the intervention also a retention follow-up was administered using open-ended questions. The latter was done, as studies emphasize the need to also evaluate the impact of an intervention over a longer period of time, (i.e., at least the following school year).

A semi-structured interview protocol was developed to safeguard a standardized approach in both conditions and at each measurement occasion. The quality of the content and structure were ensured by the authors, who provided feedback on the content and the structure of the qualitative questions. The questions in the focus group, in-depth interviews, and the follow-up also were parallel with the questions of the quantitative data collection (i.e., related to BTs' reading motivation and self-efficacy regarding teaching reading) to be able to blend both lines of data accurately and to interpret the data thoroughly in view of the study's overall aim. The following questions for example were asked: "How has the CPD program influenced your reading motivation?", "Is there a difference in reading motivation in your professional (e.g., reading of children's literature to use and promote in the classroom) and your personal reading (e.g., reading without clear link to their profession, for example adult novels)", "How has the CPD program influenced your teacher efficacy regarding promoting reading motivation?" and "Could you elaborate on what you have implemented in your classroom based on insights from the CPD program"? The focus groups lasted on average 37.5 minutes (min. 30 and max. 45 minutes) and the in-depth interviews' average is 24 minutes (min. 20 and max. 30 minutes).

2.5. Data analysis

The process of data analysis included three steps: (1) quantitative data analysis (teacher survey), (2) qualitative data analysis (focus groups, in-depth interviews, open-ended questions from written interview), and (3) mixed-methods analysis to examine how the qualitative data supported, contradicted, broadened or deepened the quantitative data (Creswell, 2003).

2.5.1. Quantitative data analysis

Descriptive statistics were calculated for all variables and ANCOVA was performed to analyze the impact of the intervention and to study the possible differential impact of both CPD conditions. The main purpose of using ANCOVA was to adjust the posttest means for differences among conditions at pretest.

2.5.2. Qualitative data analysis

All focus group and interview data were first transcribed verbatim. These data together with the retention follow-up written interview with open-ended questions were analyzed qualitatively aided by Nvivo 12 and this following the generic steps suggested by Creswell (2003). Thematic analysis of the data was conducted using a three-step procedure: (a) generating a code, (b) reviewing and revising the code in the context of the nature of the raw information, and (c) determining the reliability of the coders and therefore the code (Boyatzis, 1998). This kind of analysis was opted for to check whether the qualitative data fit the theory-driven categories regarding reading motivation and self-efficacy regarding promoting reading motivation which were also used in the teacher survey (quantitative data). Moreover, given the richness and depth of the qualitative data, after the first phase of thematic data analysis using the abovementioned deductive approach, in a second phase the data were further analyzed inductively, generating new themes. In both data analysis phases researcher triangulation was applied within the research team to discuss the interpretations, and the

findings were re-examined when consensus was not reached (Cohen, Manion, & Morrison, 2007; Patton, 1990). Ambiguities were acknowledged, identified, and discussed among the research team members.

2.5.3. Mixed-methods analysis

Given that teachers' own reading motivation and their self-efficacy for reading motivation promotion were explicitly focused on in the quantitative teacher survey and in the theory-driven coding of the qualitative data, the qualitative findings regarding both aspects were linked to the quantitative results to support, contextualize, and enhance these results and to provide in-depth information about the impact of the intervention (Cresswell & Clark, 2010).

3. Results

3.1. Results based on quantitative data analysis

To quantitatively compare the three research conditions, analyses of covariance was employed on the following outcome variables: BTs' autonomous and controlled reading motivation in the professional and personal context and self-efficacy regarding promoting reading motivation. Table 5 shows the descriptive statistics for these outcome variables and the pretest scores. Pretest data for the respective outcome variables were used as covariates. After adjusting for the pre-intervention scores, the results showed no significant differences between the conditions for autonomous reading motivation in the personal (F (2,24) = 2.31, p = .12) and professional context (F (2,24) = .96, p = .39), for controlled reading motivation in the personal (F (2,24) = 1.81, p = .18) and professional context (F (2,24) = 2.45, p = .10), nor for self- efficacy for instructional strategies (F (2,24) = .32, p = .72) and self-efficacy for classroom student engagement (F (2,24) = .21, p = .80). Only for self-efficacy for classroom management a significant difference was found between the individual and the comparison

condition (p = .01). More specifically, the comparison condition reported significantly higher scores than the individual condition.

Insert Table 5 about here

3.2 Results based on the qualitative deductive data analysis

In the following, findings regarding changes in BTs reading motivation and self-efficacy regarding promoting reading motivation are reported. They are based on the first phase of qualitative analysis where a theory-driven deductive approach was applied.

3.2.1. Reading motivation

Notwithstanding the non-evolution reported by BTs already liking reading before the CPD, posttest statements from BTs from both CPD groups (i.e., respectively 6 in the group and 8 in the individual condition) do refer to changes in autonomous reading motivation.

> *"I do [like reading more]. It is mainly noticed by the children in the classroom, as there are more books in the classroom and I read even more aloud to them."* (Liv, GC)[1]

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[1] BTs' statements are presented using pseudonyms and abbreviations regarding their affiliation to both CPD conditions, namely IC which refers to the individual and GC to the group condition.

Moreover, this was still evident nine months after the CPD, as the majority of the participants in both CPD conditions explicitly referred to a higher autonomous reading motivation at the retention test.

> *"Yes [I like reading more], I now even look forward more to the moments where I can read together with my students. It started as a way to set a good example in being a motivator for the children, but this actually turned into intrinsic motivation."* (Marie, GC)

> "*I now am more motivated to read more myself, both in my free time and when it comes to my profession.*" (Kim, IC)

As can be deduced from participants' statements above, reading for professional (e.g., reading of children's literature to use and promote in the classroom) and/or personal (e.g., reading without clear link to their profession, for example adult novels) reasons are clearly distinguishable. For some participants, the evolution in autonomous reading motivation appears to be predominantly related to the professional context, corresponding to the primary focus of the CPD. More specifically, respectively 3 and 2 BTs in the individual and group condition explicitly reported both at posttest as in the follow-up written interview that they became more motivated for reading for professional reasons even though they do not really like to read for personal reasons in the recreational context.

> "*Professionally, I got more motivated to do more reading activities with the children. The children themselves are also more motivated."* (Finn, IC)

> *"I do not like reading more personally. However, professionally. I am now more aware of the relevance, for example when searching for books for my students."* (Louise, GC)

In addition, 6 BTs (i.e., 2 IC and 4 GC) explicitly stated that through the CPD, they also became more autonomously motivated to read in their free time, thereby occasionally pointing to differences in preference regarding genre.

> *"I started looking differently at books and I now love beautiful picture books a lot. Leading to me buying and reading a lot more books than I used to. (...) Through the fact that I started to read aloud more in class and enjoying it, I personally got more interested in books as well."* (Arthur, IC)

The majority of BTs in both CPD conditions showed an increasing awareness of the essential role of one's own reading motivation in being a reading role model. This finding emerged both at the end of the intervention and even stronger at the follow-up nine months later.

> *"I try to read a lot of children's literature as well. In that way, I can motivate the children to read books. In this respect, many children already started to like reading more, because they see how I like to read."* (Isa, GC)

When comparing BTs' reports on their reading motivation, no striking differences appeared between the individual and group condition. Participants in both conditions and at the different measurement occasions reported similar reading motivations (i.e., merely relating to their autonomous and not to their controlled reading motivation). When focusing on their professional role as a teacher, BTs in both conditions indicated that they knew they needed to be role models and often made a clear distinction between reading adult and children's literature. Regarding the latter most of them already were motivated to read or got even more stimulated to do so.

3.2.2. Self-efficacy regarding promoting reading motivation

As to the evolution in BTs' self-efficacy regarding promoting reading motivation, the majority of the participants witnessed and reported a growth directly after the CPD and at retention, both regarding their self-efficacy for instructional strategies as for student engagement.

> *"I feel that I now can better motivate my students with books. I now for example know better which book might work for which student."* (Lisa, IC)

> *"I quickly noticed that there were many things I had to deal with during the first year [of teaching]. I did not always knew well where and how to start. This CPD gave me the feeling of 'one thing less to think about'."* (Liv, GC)

As to BTs' self-efficacy regarding classroom management during promoting reading and during reading promotive activities, the findings based on the qualitative data corroborate the positive relation of the CPD as determined in the survey results.

> *"[When I read aloud], they are all listening. And with this class that is not so easy, because it is hard for them to do so. But when reading a book [aloud] it works well. [...] Books can do a lot, that I have noticed."* (Arthur, IC)

In line with the results focusing on reading motivation, no noteworthy differences appeared between the individual and group condition when focusing on self-efficacy for promoting reading motivation. In both conditions it became apparent that BTs often directly reported changes in their teaching behavior, rather than changes in their self-efficacy regarding promoting reading motivation.

3.3 Results based on the qualitative inductive data analysis

By means of an inductive approach, the second phase of the qualitative data analysis went beyond the findings on increased BTs' reading motivation and self-efficacy regarding promoting reading motivation. Although it was not an explicit aim of the present study, changes in teaching behavior in view of reading promotion and improved students' reading motivation came to the fore in BTs' reports. Moreover, references were also made to the hampering or fostering role of BTs' school context and on their explicitly stated need and call for CPD.

3.3.1. Teaching behavior

BTs from both conditions reported changes in their teaching behavior, immediately and nine months after the CPD and this on different levels. More specifically, they reported on changes in their teaching behavior related to students, classroom and school level. The following statements first focus on changes in their behavior linked to students and classroom level. For example teachers' reading aloud sessions in the classroom augmented as 9 BTs (i.e., 4 IC and 5 GC) explicitly stated:

> *"In my class I often read aloud short stories and the students really like this. Possibly I also stimulate their reading motivation in this way."* (Karen, IC)

The majority of the BTs also focused more on collecting, presenting, and sharing motivating children's literature with their students:

> *"I also bring a lot more reading materials to my classroom than before the CPD program, because I now know better how to make use of them."* (Louise, IC)

> *"I make sure to establish a motivating reading environment with for example an attractive book corner, where I put books and texts in the spotlight by putting them on*

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an easel, by hanging excerpts of books on the class door (and changing it regularly). I
also hung up poems in the toilets and the children really loved it." (Anna, GC)

In line with the growth in self-efficacy, the majority of BTs in both conditions reported to
be more aware of how to install and integrate motivating (and challenging) instructional
reading practices into their daily work.

> *"I became aware of the need to not only focus implicitly on reading motivation, but*
> *also explicitly."* (Karen, IC)

> *"We for example made a newspaper with the students, used book bingos, had*
> *regularly speed dates with books, invited authors in the classroom, wrote stories,*
> *invited library staff to our school for extra information. The students really loved to*
> *work on reading and with books in this way."* (Finn, IC)

Some BTs also referred to starting to work more closely together with other partners in
view of fostering their students' reading motivation. They focused for example on relating
more with parents and library staff to build a motivating reading environment or invited
authors to come and speak about their books.

> *"From next school year onwards the 'library bus' will visit our school regularly; I*
> *organized this."* (Liv, GC)

> *"We invited an author to our school. Some students really liked this and immediately*
> *ordered some of his books."* (Sara, IC)

> *"Once a month we now organize a reading café together with parents and students*
> *with something to eat and drink."* (Arthur, IC)

A few BTs' in both conditions even aimed at promoting reading at school level as well. They for example reported joining working groups organizing motivating reading activities at school level or setting out a reading school policy to jointly target reading (motivation) at different levels in a structured, strategic, and purposeful manner.

> *"Because of the CPD program I feel more secure and therefore I am now part of a taskforce on language/reading policy. At school level we are working now to update our reading policy. Through the research papers and information I got via the CPD's facilitator my colleagues again saw the importance of focusing on reading and now it is more explicitly present in our curriculum. Every class now reads every day for at least fifteen minutes. We also do some reading activities at each staff meeting."* (Finn, IC)

BTs participating in the group condition became more critical regarding strictly following what textbooks and manuals prescribe and they collaboratively created and further developed more challenging and differentiated reading activities (i.e., not included in the applied textbooks at school) than participants in the individual condition.

> "*As a novice teacher I was grateful to be able to come together several times during the school year and to work demand-driven and in a practical way on reading education. (…) During the sessions we responded well to each other as a group. More specifically, we for example developed a reading circuit. Something that you would normally not be able to work out that easily on your own. Also the sharing of practical tips and tricks made everything more easy to bring into practice in the classroom. We were always inspired by new books and instructional strategies as well. The nice atmosphere and positive feedback made me go home with more energy.*" (Liv, GC)

"Because of the CPD I look more critical to the textbook used and compare it with what is expected in the standards. I notice a lot of repetition and lessons that are not linked to the objectives. (…)." (Linn, GC)

Statements from the BTs participating in the individual condition point to a somewhat slower growth and mostly in respect to preparing more time consuming reading activities. However, based on their statements at the end of the intervention and at the follow-up nine months later, a similar growth regarding teaching reading could be determined as well.

"*It is really different now: Since I got so much information and ideas to work on reading in a motivating way during each session, I now still try things and intend to do so in the future.*" (Finn, IC)

3.3.2. Students' reading motivation

As to students' reading motivation, the majority of the participants in both conditions reported on the CPD impact via their change in instructional practices on their students.

"They really got motivated to read and I definitely notice changes in students' reading behavior." (Finn, IC)

"*I already put some ideas into practice. […]. I already introduced the reading circuit in my classroom and my children love it! At the start of the school year, some of the children did not really like to read. However, I noticed that through the reading circuit (with drama reading exercises, reading in pairs, … focusing on different reading strategies) they became more enthusiastic about reading."* (Anna, GC)

3.3.3. School context

In line with the crucial factors influencing a CPD program's impact as distinguished by Desimone (2009), the majority of the BTs in both conditions also reported on the significance of context as for example school leadership, curriculum and policy environment. As to school characteristics, both hampering and fostering aspects where referred to in both conditions halfway and directly after the CPD program.

> *"My colleagues closest to me were interested, but the others were not. Also the principal did not show any interest, although he knew I was part of this year-long program."* (Lisa, IC)

> *"I tell a lot about the CPD, but also my colleagues inquire about it. I really like it, that my team reacts to my CPD program in this way."* (Liv, GC)

3.3.4. BTs in need of CPD

In both conditions the majority of the BTs on the retention test also explicitly mentioned the need for more CPD after the program ended, because they miss the focus on content, feedback and support.

> *"I miss the CPD. This year [i.e., next school year after the CPD program] I find it hard to find time and space to focus on reading, which I truly regret. I notice that I now more often do the same things. Together it is more motivating to work things out than on your own. Moreover, receiving feedback on whether or not you are doing well is always stimulating."* (Lisa, IC)

> *"I really loved to meet regularly with the other novice teachers and learn from each other."* (Ellen, GC)

"*What I do miss, is the feedback on my teaching practice regarding reading promotion. Now I have to look for new ideas and approaches all by myself. During the sessions, however, I received help in this respect. I gained a lot of energy from the feedback talks and I was always triggered to try out something new in the classroom. At present I have the feeling to be left alone and my energy to start with something new is not always there.*" (Sara, IC)

When focusing on differences between both conditions regarding the CPD program's appraisal, the need for more in-depth feedback related to their actual teaching behavior in the classroom became apparent. This was dominantly and explicitly put forward by two BTs in the individual condition at posttest.

"*I was thinking that it would be nice that you would come to my class and observe what I am doing. […]. You could also come and see how I put the things that we have discussed during the CPD sessions into practice. It is not that I absolutely missed this, but it would be nice, because you then work on it in practice and see how it works.*" (Arthur, IC)

4. Discussion

The present study underlines the added value of focusing on beginning teachers' reading motivation and their self-efficacy for promoting reading motivation via a year-long CPD program. The focus was on teachers in their first years of teaching, as the literature repeatedly showed how determining these years of practice can be in view of preventing teacher attrition and in optimizing (further evolution in) teacher quality (Flores, 2001). In line with the sequence in the framework of Desimone (see Figure 1, 2009) not only the reading motivation and self-efficacy for promoting reading motivation changed for the majority of the BTs.

Changes in teaching practices regarding reading motivation promotion and in students'
reading motivation were reported as well. In addition, also stimulating or hampering context
characteristics explicitly came to the fore.

In line with earlier studies (e.g., Vangrieken & Kyndt, 2019), the present study's mixed-
methods design has shown to be an added value. By conjointly collecting quantitative and
qualitative data, a more comprehensive insight in the impact of the CPD was gained. Solely
based on the quantitative results it should have been concluded that the CPD program had no
clear impact. In line with earlier research on quantitative data showing no clear impact (von
Suchodoletz, Jamil, Larsen, & Hamre, 2018), it can be hypothesized that BTs' in both CPD
conditions became more aware of the growth path still ahead of them and consequently
became more critical than the BTs in the comparison group. Furthermore, given the focus on
affective outcomes, it can also be argued that more fine-grained quantitative instruments are
needed than the ones used in the present study. In this respect, it might be worthwhile to
explore more in-depth existing instruments and to opt for the development of new ones in
view of really grasping beginning teachers' behavior regarding promoting reading in the
classroom. In addition, it can be considered beneficial to examine beginning teachers' own
affective reading aspects in relation to their autonomy-supportive and structuring teaching
style and autonomy-supportive strategies (Author(s), 2014; Author(s), 2016a). In this respect,
the recent studies by Aelterman et al. (2019) and Vermote et al. (2020), examining both
motivating and demotivating teaching styles by using a circumplex approach or teaching
wheel providing an overview of eight different (de)motivating approaches can be inspiring.
Nonetheless, considering the small sample size and power of the present study, these
instruments might still be too insufficient to really grasp and understand possible significant
changes in time and differences between conditions as well. However, the more in-depth

qualitative results in the present study tell another story, nonetheless revealing an impact of the CPD, even still lasting nine months after the program ended. In this respect, the findings underline the results of previous studies focusing on BTs malleability of these affective outcomes (George et al., 2018).

Based on the insights from the qualitative analysis, Desimone's framework (2009) leading to possible impact on the students became visible. Although often presented as a linear process, in line with earlier studies that criticized this framing, the present study stresses the interactive and reciprocal relationships in the model (e.g., Opfer, Pedder, & Lavicza, 2011). More specifically, it became clear that for both CPD conditions the program's operationalized core features influenced participating BTs' autonomous reading motivation and self-efficacy regarding promoting reading motivation. Moreover, changes in teaching practices and changes in students' reading motivation were reported as well. In this respect, the explicit integration of insights from motivation theory as proposed by Kennedy (2016) and as has been operationalized in the present study by explicitly integrating insights from the Self-Determination Theory into the core features of the CPD design, can be considered an added value. Given the fact that the present findings are based on BTs' self-report in focus groups and interviews, further research including also measures of BTs' actual behavior in the classroom and on students' reading motivation by means of respectively classroom observations and directly questioning students could enhance these insights even more (Holzberger, Philipp, & Kunter, 2013). In this respect, it might be interesting, for example, to integrate The Classroom Assessment Scoring System™ (CLASS™) into the CPD program to assess and follow up actual teacher behavior and classroom quality (Pianta & Hamre, 2009). Notwithstanding the fact that stimulated recall interviews are also self-reported in nature, following Harlin (2018) it might also be interesting to use stimulated recall interviews to

examine whether and how teachers reflect on their teaching behavior regarding reading promotion and on their functioning as a reading role model in particular. Combining self-report measures with interviews and observer ratings could furthermore tackle the issue of social desirability (Schellings & Van Hout-Wolters, 2011) and be useful considering the need to enhance data triangulation.

When further zooming in on possible differences between both CPD conditions, it must first be stated that all participants - irrespective of the condition they were assigned to - were positive about the CPD program. It appears that given their context (i.e., the absence of a formal induction program), BTs were in need of all the professional development and support they could get, underlining and corroborating the demand for high-quality CPD embedded in a strongly stimulating context as put central in the research literature (Darling-Hammond et al., 2017; Louws et al., 2017). In line with previous research as described in the introduction, it can be concluded that BTs in the present study benefitted from both the one-on-one and the group CPD approach (Clark et al., 2017; Kennedy, 2011). Additionally, however, based on the present finding it can also be posited that being part of a group of teachers who are all in the same position (i.e., facing similar needs and challenges at the start of their career) stimulates growth at a somewhat faster pace and increases more critical reflections (e.g., Fox & Wilson, 2009). As a group they for example dared to face larger challenges during the program (i.e., implementing and experimenting with differentiated reading motivation practices) and were more critical regarding provided reading materials and manuals than participants belonging to the individual condition. In future studies and as abovementioned, however, the observed differences should best be corroborated with data linked to their actual teaching practices. Noteworthy in both conditions is that the majority of the participants at retention made clear how much they missed the CPD program by explicitly reporting their

need for further focus on content, feedback, and support. Given the specific focus on BTs and given the absence of a formal induction program this result could be expected (Appova & Arbaugh, 2018; Louws et al., 2017). Based on the qualitative results of the present study it must be concluded that BTs are in need of further and continuous development. It remains unclear, however, how this is best delivered. Further research in this respect is therefore necessary and can be inspired by the idea of "scaffolding" in CPD programs (Elbers, Rojas-Drummond & van de Pol, 2013). In this respect, an intense program as in the present study could be followed by less intense support.

Next to the limitations mentioned above, it can be interesting for further research to consider teacher quality as a whole and to address the multidimensionality of reading (more affective and cognitive aspects of reading) in the CPD program (Didion, Toste, & Filderman, 2020). This could raise the understanding of the impact of a CPD program even more by providing insight in how for example teachers' reading motivation interacts with their knowledge on (fostering) reading motivation or in how teachers' reading comprehension instruction relate to their self-efficacy beliefs on this. It then could be recommended to examine such relationships longitudinally and preferably from the very beginning of a teacher's career (von Suchodoletz et al., 2018).

6. Conclusion

Responding to the need to focus on teachers' affective aspects of reading as for example reading motivation and self-efficacy regarding promoting reading motivation, the present study showed that offering a year-long CPD program on reading motivation promotion to BT's could be an effective way to stimulate and improve their teacher quality regarding the affective side of reading from the very start of their teaching career. Moreover, the added value of applying a mixed-methods approach to get a more comprehensive insight into the

CPD program's impact became apparent. The present study furthermore posits the need to implement well-designed CPD programs based on well described, operationalized, and implemented core features, closely aligned with the program's overall aims. Such programs raise the likelihood of leading to a positive impact and this not only on the participating teachers, but on their students as well, which can be considered the core goal in education.

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Core features of CPD program:
- Content focus
- Active learning
- Coherence
- Duration
- Collective participation
- Autonomy support
- Competence support
- Relatedness support

Increased teacher's reading motivation and self-efficacy regarding promoting reading motivation

Change in teaching behavior regarding promoting reading motivation

Improved students' reading motivation

Context such as teacher and student characteristics, curriculum, school leadership, policy environment
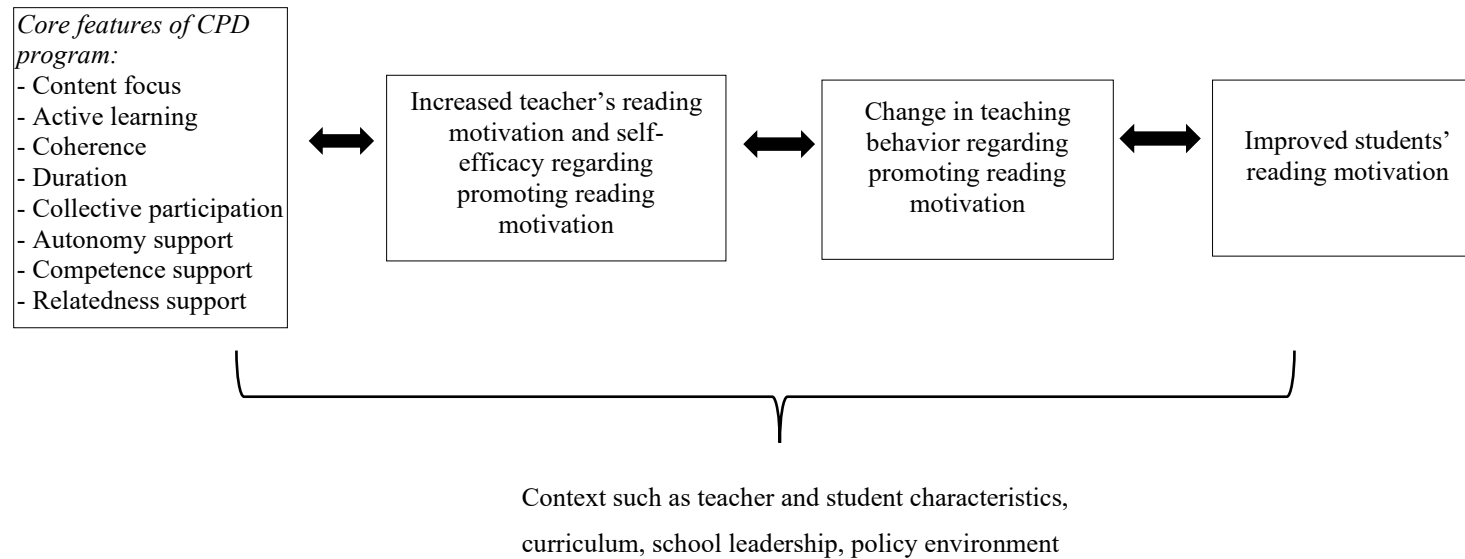
Fig. 1. Framework for studying the effects of a continuous professional development (CPD) program on reading motivation promotion based on Desimone (2009) and Self-Determination Theory (Ryan & Deci, 2000).
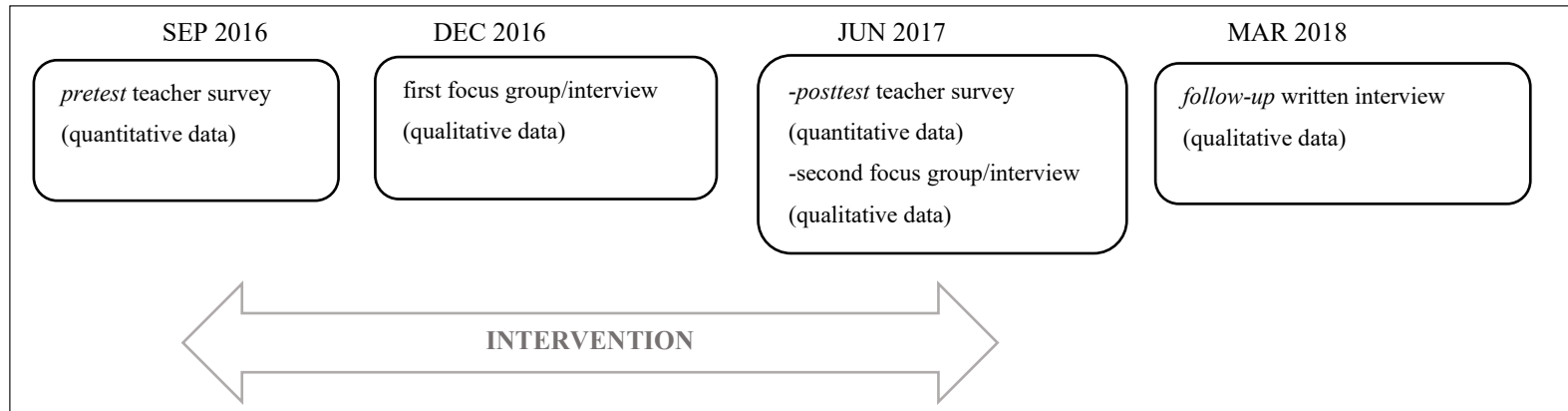
Fig. 2. Overview of the mixed-method intervention study

Table 1. Gender, age and teaching experience of the participants

	CPD group (*n*=8)	CPD individual (*n*=10)	Comparison group (*n*=10)
Gender, *n* (%)			
Female	7 (87.5%)	8 (80%)	8 (80%)
Male	1 (12.5%)	2 (20%)	2 (80%)
Average teacher age (*SD*)	23.6 (2.8)	25.1 (4.2)	27.7 (9.3)
Teaching experience, *n* (%)			
First year in teaching profession	5 (62.5%)	6 (60%)	6 (60%)
Second year in teaching profession	3 (37.5%)	4 (40%)	4 (40%)

Note. SD for age in the comparison group is high, because of the presence of one older participant (age = 52). In the city where this study took place also people, indifferent of their age, having another profession are encouraged to become teachers.

Table 2. Design principles, facilitator's instructional activities, and participants' learning activities in the CPD on promoting reading motivation for beginning teachers

Design principles of the CPD program	Examples of facilitator's instructional activities in the CPD program	Examples of participants' learning activities in the CPD program
1. **Content focus** Providing participants with information on and skills to increase students' reading motivation.	-offers participants a variety of reading materials to foster their students' reading motivation (e.g., different fictional and/or literary texts as for example picture books, poetry or novels; digital/on paper). -points participants to different ways to find and select motivating reading materials to foster their students' reading motivation (e.g., using online catalogues suitable for their students to find a variety of text genres as for example fiction/literary texts). -points participants to various strategies to enhance autonomous reading motivation (e.g., being able to respond to their students' reading interests). -alerts participants to different ways to create a visible motivating reading environment in collaboration with their students (e.g., teacher's and students' book suggestions are put in the spotlight in the classroom).	-get acquainted with a variety of reading materials presented by the facilitator and also introduce new materials themselves of which their students are motivated about. -get acquainted with and use different ways to find and select motivating reading materials for their students. -get acquainted with and use various strategies to enhance the autonomous reading motivation of their students. -get acquainted with and use different ways to create a visible motivating reading environment in collaboration with their students and also introduce stimulating reading environment practices they themselves and their students are motivated about.
2. **Active learning** Participants' continuous inquiry of practice, co-creation of and reflection on professional and academic knowledge to increase students' reading motivation.	-stimulates participants observing/sharing their teaching practices in view of fostering students' reading motivation. -stimulates and guides interactive feedback and discussion on participants' observed/shared teaching practices in view of fostering students' reading motivation. -stimulates designing lessons, making materials, etc. together with other participants and the facilitator. -stimulates participants reviewing and reflecting on their own and other participants' work together with other participants and the facilitator in view of fostering their students' reading motivation.	-observe/share their own teaching practices (e.g., observing/sharing short video clips where teachers focus on enhancing their students' reading motivation and this for example by getting them acquainted with reading materials (e.g., literary texts) they can choose from, are related to their interests, etc.). -give feedback and join discussions on participants' observed/shared teaching practices in respect of enhancing students' reading motivation. -design lessons, make materials, etc. together with other participants and the facilitator. -review and reflect on their own and other participants' teaching

			practices in respect of enhancing their students' reading motivation together with other participants and the facilitator.
3.	**Coherence** Alignment of the CPD program with participants' goals, beliefs and with current educational reforms and policies to increase students' reading motivation.	-relates closely to the participants' daily teaching practices (e.g., focusing on the actual reading motivation of their students, being able to assess and monitor this). -stimulates participants to focus on the beliefs and goals they want to achieve regarding their students' reading motivation; knowing how closely reading motivation, reading behavior and reading competence are related to each other. -stimulates participants to relate their teaching practices to school policy and reforms regarding students' reading motivation (e.g., the need for schools to focus on reading in a well-defined language policy plan).	-in view of fostering their students' reading motivation they assess their students' reading motivation, monitor it continuously, and relate their teaching practices to this knowledge. -participants express the beliefs and goals they have and they want to achieve in view of fostering their students' reading motivation; participants discuss the close relationship between reading motivation, reading behavior, and reading competence with each other. -participants are able to relate their beliefs and goals regarding their students' reading motivation to school policy and current educational reforms.
4.	**Duration** Participants taking part in extended and intensive CPD program when aiming at fostering students' reading motivation, i.e. of sufficient duration with activities that are spread out in time and include at least 20 hours of contact time.	-organizes 6 face-to-face sessions (4 hours/session) throughout the school year, with a specific educational focus for each session, namely (1) motivating instructional practices, (2) multilingual context, (3) differentiated instruction, (4) linguistically responsive teaching, (5) assessing reading motivation; and (6) reading policy as a corner stone in a school's language policy. -stimulates online continuous professional development for the participants between the face-to-face sessions (e.g., through an online tool decided on by the participants). -stimulates participants to meet in educational contexts/locations that relate strongly to the content focus (e.g., their classroom, library, reading organizations). -stimulates participants to prepare well for every face-to-face session (e.g., when focusing on fostering students' reading motivation participants prepare questions, teaching practices (with photo/video-material) or teaching materials they want to show/share with other participants and/or the facilitator).	-participate actively in close co-operation with the other participants and in view of fostering their students' reading motivation in 6 face–to-face sessions (4 hours/session) throughout the school year, with a specific educational focus for each session, namely (1) motivating instructional practices, (2) multilingual context, (3) differentiated instruction, (4) linguistically responsive teaching, (5) assessing reading motivation; and (6) reading policy as a cornerstone in a school's language policy. -participate actively in the online continuous professional development between the face to-face sessions (e.g., by sharing motivating reading materials, helping each other with motivating teaching materials regarding reading motivation, pointing to motivating reading practices regarding national reading campaigns). -propose motivating educational contexts/locations that relate strongly to the content focus and participate actively in these contexts (e.g., by sharing visible motivating reading environments, showing in practice how students share their reading materials). -prepare well and in advance for every face to face session.
5.	**Collective participation** Participants collaborating about each	-stimulates participants to share and elaborate on teaching practices fostering their students' reading motivation (e.g., how they choose motivating reading materials for their students, how they use differentiated instruction to foster all their students'	-share and elaborate on their teaching practices fostering their students' reading motivation. They for example share how they choose motivating reading materials for their students or elaborate on how they use differentiated instruction to foster all their

	other's teaching practices to increase students' reading motivation.	reading motivation, how they address the multilingual setting they are working in). -stimulates participants' interaction (e.g., discussion, feedback) about their own and others' teaching practices in view of fostering their students' reading motivation (e.g., how they turn their classrooms into visible motivating reading environments, which literary texts work in which context, how they focus on reading motivation when teaching, for example, mathematics or biology). -stimulates participants' cooperation and co-creation in view of fostering their students' reading motivation (e.g., designing lessons and materials linked to motivating instructional practices as for example regarding book talks).	students' reading motivation. -interact (e.g., discussion,, feedback) about their own and others' teaching practices in view of fostering their students' reading motivation. They for example talk about how they turn their classrooms into visible motivating reading environments or discuss about which literary texts work best in which context and how they focus on reading motivation when teaching for example mathematics or biology. -cooperate and co-create in view of fostering their students' reading motivation (e.g., designing lessons and materials linked to motivating instructional practices as for example regarding book talks).
6.	**Autonomy support** Participants' need for autonomy (i.e., the experience of a sense of volition or psychological freedom).	-provides choices (e.g., offering participants/students a variety of literary texts that they can choose from). -aligns with participants' interests (e.g., offering participants/students a variety of literary texts that fit their interest). -considers highly the participants' perspectives and behaviors (e.g., relates highly to the participants' teaching practices in view of fostering their students' reading motivation).	-make choices in view of fostering their students' reading motivation (e.g., they choose from a variety of literary texts that suit their teaching practice and context best). -make clear in their preparation before the session and also during the actual session what they are interested in when it comes to enhancing their students' reading motivation, hereby the program fits the participants' interests (e.g., which instructional strategies in promoting their students' reading motivation align best with their interests regarding their students' reading motivation). -share their perspective and behavior in view of fostering their students' reading motivation (e.g., relate highly to the their daily teaching practice and their students' actual reading motivation).
7.	**Competence support** Participants' need for competence (i.e., the experience of being confident and effective in action).	-stimulates communicating about participants' expectations of the CPD (e.g., expectations on where to find motivating reading materials for their students, which instructional teaching activities have which impact in view of reading motivation). -provides participants with optimal challenges (e.g., to be able to integrate differentiated instruction regarding reading motivation, to teach linguistically responsive in a multilingual setting by for example making the reading environment in the classroom visible multilingual). -offers help and support (e.g., before and during the face-to-face sessions explicitly asks the participants if they need help and support when it comes to fostering their students' reading	-communicate their expectations of the CPD regarding enhancing their students' reading motivation (e.g., expectations on the accessibility of motivating reading materials for their students). -take up optimal challenges (e.g., integrate differentiated instruction regarding reading motivation in their daily teaching practice, teach linguistically responsive in a multilingual setting by for example providing literary texts in different languages and making them visible in the reading environment). -ask help and support (e.g., before and during the face-to-face sessions explicitly share if they need help and support when it comes to fostering their students' reading motivation).

	motivation). -provides positive feedback (e.g., explicitly relates to all participants teaching practice when it comes to fostering their students reading motivation and positively stimulates them when for example putting a co-created lesson in practice).	-are responsive to positive feedback (e.g., regarding a co-created lesson well put in practice).
8. **Relatedness support** Participants' need for relatedness (i.e., the experience of feeling connected to and accepted by others).	-stimulates involvement (e.g., by inviting participants to express themselves in various ways). -creates a safe motivating learning environment, for example by bearing in mind that participants like to feel connected to and accepted by others.	-are actively involved and engage and express themselves in various ways, in oral and/or written forms (e.g., during the face-to-face sessions, using the online tool, sometimes more one-to-one, often collaborating closely). -feel part of a safe motivating learning environment (e.g., feel connected to and accepted by others and share this orally and on paper or using the digital tool).

Table 3. Implementation per session of the CPD program on reading motivation promotion

Content focus per session	Goal per session	Examples of input from participants sent to the facilitator *before the session*	Examples of actions taken by participants (P) and facilitator (F) *during the session*	Examples of plans for transfer shared by participants *during the session*	Examples of plans put into practice shared by participants *during the following session(s)*
Session 1 **Reading motivation** + Strategies to promote reading	**Goal:** *Participants know what reading motivation is, which types of reading motivation can be distinguished (i.e., autonomous/controlled) and which strategies promote students' autonomous reading.*	-How can I motivate my students' to like reading (more)? -Are there any strategies that I can use to stimulate my students' reading motivation? -How can I use my classroom better in promoting my students' reading motivation?	-F asks P how they would define reading motivation? And which types of reading motivation they think exists? -F asks P how they motivate their students' reading? -P share strategies they use in their teaching practice. F shares additional strategies. -P share how they use their classroom in view of promoting their students' reading (P were asked beforehand to send pictures of their classroom to the F that can be shared on a screen during the session); P give each other suggestions on how to optimize their classroom and resources and F shares suggestions when not mentioned by the P	-P will try to focus more on students' autonomous reading motivation by responding more to their need for autonomy, competence, and relatedness. -P will try some new strategies to promote their students' reading motivation. -P will try to put in practice some suggestions regarding the reading environment in the classroom.	-P share examples of how they focused on their students' autonomous reading motivation (by providing choice, by helping their students' to choose reading materials they are interested in). -P share some new pictures of their classrooms showing which adjustments were made (making reading material more visible, providing a space where students can give suggestions for new reading materials) -P share their attempts to use new strategies regarding their students' reading motivation (book circuit, book date)
Session 2 **Reading motivation** + Multilingual setting	**Goal:** *Participants know how to promote their students' reading*	-I have students who have another mother tongue than the language used in	-F asks P whether and how they integrate the multilingual setting their	-P will try to be aware more of the multilingual setting they are working	-P share how the new reading materials they got to know worked in

	motivation in a multilingual setting.	the classroom; how can I use students' mother tongue to enhance their reading motivation? -Where can I find reading materials and resources in various languages? -How can I promote reading in the school language, while not neglecting the multilingual setting?	school is situated in in their teaching and daily practice. -P share whether and how they make the multilingual context visible in their classroom (regarding multilingual reading materials) -F asks P where they look for multilingual reading materials to promote their students' reading?	in and how this might influence their students' reading motivation. -P will try out some new reading materials, proven to be motivating in multilingual settings. -P will try to make reading in other languages more visible in their classroom. -P will invite parents to come and read aloud during multilingual reading sessions.	their classroom (multilingual reading materials). -P share how the multilingual reading aloud sessions worked for their students and how it impacts their students' reading motivation. -P share how they made the multilingual setting more visible in their classroom (showing various reading materials in different languages next to the school language)
Session 3 **Reading motivation** + Differentiated instruction	**Goal:** *Participants know how to use differentiated instruction to promote their students' reading motivation.*	-I have some students who really like reading and some who don't; how can I keep on stimulating reading in all students? -Where and how can I find reading materials for every student in my classroom (great variety of interest, level of reading comprehension). -How can I use my classroom and available books better, so that my students can choose reading materials at their own (pace), read how and where they wish when time is made available?	-F asks P whether and how they try to promote each of their students' reading motivation. -P share how they try to differentiate when it comes to their students' reading motivation; F provides additional suggestions. -P share where and how they try to find reading materials that are motivating for every student; F provides additional suggestions. -P share how they try to relate to their students' preferences how they read during reading sessions	-P will try to differentiate more when it comes to their students' reading motivation. -P will try to select and collect a varied collection of reading materials, so that their students can choose according to their interests, competence level, and so on.	-P share how they differentiated during their classes (providing choices, providing a varied collection of reading materials).

		(i.e., silent reading, reading aloud sessions).			
Session 4 **Reading motivation** + Assessment	**Goal:** *Participants know how their students' reading motivation could be assessed and followed up.*	-How can I keep track of my students' reading motivation? -What are tools I can use to assess my students' reading motivation? -Is there a test for reading motivation available?	-F asks P whether and how they follow up their students' reading motivation. -P share whether and how they try to assess their students reading motivation; F provides additional suggestions.	-P will try to assess their students' reading motivation.	-P share how they tried to assess their students' reading motivation (using a babble box, using a questionnaire)
Session 5 **Reading motivation** + Reading in all subjects	**Goal:** *Participants know how to focus more and better on reading in all subjects (e.g.., mathematics, social studies and science), hereby promoting their students' reading motivation more broadly.*	-During language classes I focus a lot on reading motivation, but I forget to do so when teaching other subjects; how can I also focus on the latter? -Are there motivating reading materials I can use during mathematics? -Are there any strategies to promote reading during other classes than the usual language classes?	-F asks whether and how they focus on their students' reading motivation when not teaching a Dutch language class. -P share whether and how they focus on their students' reading motivation when teaching for example mathematics. -P share motivating reading materials to be used also in other classes than Dutch classes. -P share strategies to promote reading also in other classes than Dutch language classes.	-P will try to focus more on their students' reading motivation in other classes than the Dutch language class. -P will try to select, collect and show motivating reading materials regarding other subjects. -P will try new strategies to promote reading in other subjects.	-F share how they tried to focus on their students' reading motivation in other classes than the Dutch language class (by starting a mathematics class by reading aloud a piece of literary text focusing on mathematics, by making various reading materials regarding other subjects visible in the classroom)
Session 6 **Reading motivation** + School policy regarding reading in view of a structural approach	**Goal:** *Participants know what a structural approach to promote their students' reading motivation could look like (at class and school level in a*	-How can I focus best on reading motivation throughout the school year? -I certainly focus on reading motivation in the context of nationwide	-F asks whether and how they have a structural approach at class and school level regarding reading motivation. -P share whether and how there is a reading policy	-P will ask -when not already available- their colleagues and school principal whether and when the school team could start making a plan to focus on reading	Not applicable since session 6 was the last session

	reading/language policy).	reading campaigns, but how can I also explicitly and more purposefully focus on it during the rest of the school year? -My school has developed a language policy plan; is there also a way to integrate the focus on reading motivation in this?	available at school level and how they transfer it to the class level. -P share how they structurally and purposefully approach reading motivation in their classroom, next to the available nationwide reading campaigns; F provides additional suggestions.	(motivation) in a structural way at both school and class level. -P will try to make a plan to focus on their students' reading motivation in a more structural and purposeful way and this throughout the whole school year and not only when nationwide campaigns take place.

Table 4. Overview of the quantitative measures used with example statement/question, numbers of items per scale, Likert scale and Cronbach's α at pretest and posttest

	Example statement/question	**Items**	**Likert scale**	**α pretest**	**α posttest**
Reading motivation					
Autonomous	"I read, because I find reading very useful."	12	4-point		
Personal			*1: I disagree a lot*	.91	.92
Professional			*4: I agree a lot*	.94	.93
Controlled	"I read, because others expect this from me."	8			
Personal				.85	.90
Professional				.89	.89
Self-efficacy regarding promoting	"How well can you motivate students	12	5-point		
reading motivation	who show low interest in reading?"		*1: Not at all*	.74	.75
For instructional strategies			*5: Very good*	.83	.81
For classroom management				.77	.73
For student engagement					

Table 5. Descriptive statistics for quantitative outcome variables

	Group CPD M (SD)		Individual CPD M (SD)		Comparison group M (SD)	
	Pretest	**Posttest**	**Pretest**	**Posttest**	**Pretest**	**Posttest**
Reading Motivation						
Autonomous – Personal	3.05 (.53)	3.19 (.57)	3.13 (.45)	3.03 (.55)	3.13 (.48)	3.39 (.48)
Autonomous – Professional	3.09 (.39)	3.34 (.34)	3.26 (.46)	3.27 (.49)	3.22 (.34)	3.49 (.46)
Controlled – Personal	1.31 (.25)	1.28 (.34)	1.66 (.54)	1.71 (.43)	1.76 (.41)	1.81 (.51)
Controlled – Professional	1.67 (.44)	1.77 (.53)	1.91 (.65)	2.44 (.49)	2.53 (.74)	2.53 (.77)
Self-efficacy regarding promoting reading motivation						
For instructional practices	3.38 (.69)	3.44 (.53)	3.50 (.52)	3.43 (.54)	3.68 (57)	3.43 (.33)
For classroom management	4.03 (.50)	3.88 (.61)	3.93 (.67)	3.30 (.52)	3.73 (.75)	3.93 (.62)
For student engagement	3.38 (.37)	3.50 (.70)	3.50 (.50)	3.35 (.45)	3.08 (.71)	3.28 (.67)