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ARTICLE

Under pressure? Primary school teachers' perceptions of their pedagogical practices

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ABSTRACT

The aim of this study is to explore Dutch primary school teachers' perceptions regarding their pedagogical practices, and, specifically, whether they consider these practices under pressure. We conducted a survey among a sample of 261 primary school teachers from 115 schools, that included open and closed questions. The analyses showed that primary school teachers' perceptions of pressure varied: 75% of the teachers indicated that their pedagogical practices are under pressure and one-quarter of the teachers reported experiencing low or no pressure. Furthermore, the variety in experienced pressure is not influenced by teachers' experience or educational beliefs. The data show that a lack of coherence between teachers' personal vision and the school's vision influences the extent to which teachers experience pressure. This study builds on theoretical research into teachers' pedagogical practices by showing that pressure on teachers' pedagogical practices is a general problem in primary education.

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Teachers' pedagogical practices; primary school; tensions; teacher characteristics

Introduction

Dutch primary school teachers' pedagogical practices are assumed to be under pressure in the current educational context, in which educational reforms such as data-based decision-making and inclusive education seem to have disturbed the balance between teachers' didactical and pedagogical practices (Biesta 2010; Van Manen 2008). These reforms are considered to have positive consequences for teaching (e.g. improvement in teachers' didactical teaching skills, more attention for pupils with specific needs; Inspectie van het Onderwijs 2016). However, negative side effects also arise (e.g. additional administrative tasks, more diversity in the classroom; Van der Woud and Beliaeva 2015), which tend to compete with teachers' pedagogical practices (TPP), such as attention for the classroom climate or activities that stimulate pupils' personal and moral development. In general, a growing body of literature recognises teachers' general experience of an increasing workload, often referred to as 'intensification' (Ballet and Kelchtermans 2008, 2009; DUO 2016; Maslowski 2015). With the current study, we focus on teachers' experiences of pressure regarding their *pedagogical* practices in particular

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(e.g. Harmsen et al. 2018; Pillen, Den Brok, and Beijaard 2013). Research into TPP is relevant, because balancing didactical and pedagogical practices is important for the quality of teaching (Corno and Anderman 2016; Pianta 2006; Shulman 1987; Wubbels and Brekelmans 2005). Surprisingly, little empirical research has focused on pressure related to TPP in particular. Rather, some theoretical studies emphasise the importance of TPP in general (e.g. Biesta 2010; Van Manen 2008). Therefore, this study aims to explore primary school teachers' pedagogical practices, focusing on the extent to which teachers experience pressure related to their pedagogical practices.

Theoretical background

Teachers' pedagogical practices (TPP)

Both pedagogical and didactical practices are crucial to effective teaching. These two aspects are closely linked and reciprocal (Shulman 1987). However, definitions of and purposes for TPP vary widely. In English, the term 'pedagogical practices' is often used in a narrow sense, referring to the didactics of teaching. Instead, in this study, we define TPP as teachers' verbal and nonverbal behaviour during teacher–pupil interactions, aimed at three domains: stimulating pupils' social, emotional, and moral development; creating a safe learning climate; and supporting pupils' psychological needs for learning (Beijaard, Verloop, and Vermunt 2000; Jennings and Greenberg 2009). We differentiate teachers' pedagogical practices from teachers' didactical practices. Didactical practices refer to teachers' behaviour aimed at planning, execution, and evaluation of teaching and learning processes (Beijaard, Verloop, and Vermunt 2000). Moreover, we use the term 'practices' herein to refer to teachers' verbal and nonverbal behaviour during teacher–pupil interactions (Evertson and Weinstein 2006).

Several researchers assume that TPP are crucial for both pupils and teachers. First, in terms of the instructional triangle (visualising the relationships between teacher, pupil and subject), the quality of teaching and learning is largely determined by the quality of teacher–pupil interactions (Lampert 1985; Lortie 1975). Teachers' pedagogical practices affect teacher–pupil interactions. Moreover, the quality of TPP plays an important role, especially in primary education, in which psychological needs are crucial for the development of young children (Hamre et al. 2014; Jennings and Diprete 2010). Not meeting these psychological needs could influence their well-being and learning processes (Deci and Ryan 2000; Jennings and Greenberg 2009; Marshik, Ashton, and Algina 2017). Second, teacher–pupil interactions, which are guided by TPP, are connected to teachers' own well-being (Collie et al. 2016; Kyriacou 2001). Central to teachers' motivation is a desire to teach and work with children (OECD 2005; Struyven, Jacobs, and Dochy 2013). So, research shows that TPP are important for the quality of teaching, but little research focuses on the pressure teachers might experience regarding their pedagogical practices. Therefore, the following paragraph discusses pressure in teaching profession.

Pressure in teaching profession

Researchers use the terms 'stress', 'tensions', or 'experienced pressure' to refer to the psychological strain (perceived tensions, negative emotions and discontent) that teachers

can experience regarding their work (Bakker and Demerouti 2007). For instance, when teachers experience tensions between having to pay attention to immediate academic achievements versus having to pay attention to pupils' psychological needs. Experiences of pressure arise in an interplay between personal and contextual factors (Johnson et al. 2014; Lazarus and Folkman 1984) and are conceptualised as the degree of mismatch between the demands made upon an individual and the individual's ability to cope with those demands (Bakker and Demerouti 2007; McCarthy et al. 2015). So, pressure on TPP emerges, when external demands (e.g. in our study from educational reforms) do not coincide with teachers' personal ability to cope with those demands, resulting in pressure on their pedagogical practices.

In general, the profession of teaching can be extremely rewarding, but it can also be stressful (Johnson and Birkeland 2003; Skaalvik and Skaalvik 2015). Research on teacher stress offers many reasons why they experience tensions (Hargreaves 2005; Kelchtermans 2005; Kelchtermans 2017). This can be summarised by the concept of teaching as an 'emotional labour' (Hochschild 1983), because the core of teaching involves continuous interactions between teachers and pupils. Teachers are expected to regulate their emotions during these interactions. Most studies conclude that teachers' emotional involvement with their pupils is the primary source of the stress they experience (Johnson and Birkeland 2003). On the one hand, several studies show that negative interactions with pupils can be a central reason for beginning teachers to leave the profession (e.g. Harmsen et al. 2018; Pillen, Den Brok, and Beijaard 2013). On the other hand, positive interactions with pupils are one of the primary reasons for teachers to stay in the profession (e.g. Veldman et al. 2016). As mentioned before, several educational reforms seem to have a negative influence on the time and attention teachers have for interactions with pupils. In the following section, we discuss the reforms that seem to affect teachers' pedagogical practices.

Dutch educational reforms: DBDM and IE

At least two Dutch educational reforms relate directly to TPP, namely, data-based decision-making (DBDM) and inclusive education (IE). In line with a worldwide increasing interest in DBDM (Earl and Katz 2002; Schildkamp and Kuiper 2010), the Dutch government set DBDM as an educational reform in primary schools in 2009, assuming that doing so would lead to increased academic achievement of pupils and improvements in education (Lai and Schildkamp 2013). Ikemoto and Marsh (2007, 108) use the following broad definition of DBDM: 'Teachers, principals, and administrators systematically collecting and analysing data to guide a range of decisions to help improve the success of pupils and schools'. Because the aim of DBDM is to systematically maximise the academic achievements of all pupils, the focus is more explicitly on the subject matter and evaluating pupils' learning outcomes (Hamilton et al. 2009) and less on stimulating pupils' social, emotional and moral development. The Dutch Inspectorate of Education (Inspectie van het Onderwijs 2016) shows that DBDM has positive effects on the quality of teaching in schools: 80% of the teachers have sufficient didactical teaching skills, and the number of so-called 'excellent schools' in the Netherlands is growing. However, DBDM seems to lead to problems in teachers' daily practices: Systems used to evaluate learning outcomes can produce additional

administrative tasks for teachers, and as a result, tensions can arise in teachers' daily practices (Ballet and Kelchtermans 2009; Van der Woud and Beliaeva 2015).

In addition, the Netherlands introduced IE reform in 2014. The purpose of IE is that all pupils will receive education that suits their qualities and possibilities, especially if they need extra support. Teachers at regular schools are required to meet the (special) educational needs of all pupils and guide them in such a way that referring pupils to special education is avoided as much as possible. This reform has increased the diversity of educational needs in classrooms and has challenged teachers to meet the different needs (Beltman, Mansfield, and Price 2011). Evaluative research on the implementation of IE in Dutch schools shows that teachers are predominantly negative about the changes they experienced after IE was introduced (Van Grinsven and Van der Woud 2016; Dutch Ministry of Education, Culture and Science 2016; Van der Woud and Beliaeva 2015). They mention issues such as greater workloads, missing specific knowledge and skills to respond to the different needs, and an increase of disruptive behaviour in the classroom. Thus, IE has positive goals regarding the development of pupils with special educational needs, but teachers are required to do more in terms of knowledge, skills and time, such that IE can hinder TPP.

These reforms aim at enhancing pupils' learning outcomes and promoting a qualification-oriented attitude in schools, but also require a comprehensive repertoire of teachers' practices to accomplish educational goals for all pupils. We assume both reforms affect the pressure teachers experience regarding their pedagogical practices.

Teaching experience, beliefs and vision

In this section, we discuss three groups of teacher characteristics that can influence teachers' perceptions of experienced pressure on their pedagogical practices: teaching experience, teacher beliefs about teaching and learning, and the coherence between teachers' educational vision and that of their school. Although there are many variables that affect teachers' perceptions of their pedagogical practices, we selected those who seem to be directly related to the process of pressure that can arise in the interplay between the individual teacher and the context.

First, regarding teacher experience, several studies confirm the relation between teaching experience and the development of teaching in general. Van de Grift, Van der Wal, and Torenbeek (2011) show that teaching experience is an important influence on the development of general teaching skills of primary education teachers. Particularly, beginning teachers show significant growth in the first five to seven years. Brekelmans, Wubbels, and van Tartwijk (2005) find that, on average, the relation of teacher experience with features of the teacher–pupil relationships was stable over teachers' careers, but pupils' and teachers' perceptions of teachers' influence grew in the first six years. At the same time, this group of beginning teachers is more vulnerable to tensions and attrition compared with experienced teachers (Gavish and Friedman 2010; Goddard, O'Brien, and Goddard 2013; Gold and Roth 1993). Therefore, we explore whether teaching experience influences teachers' perceptions of their pedagogical practices.

Second, regarding teacher beliefs about teaching and learning, in line with Clark and Peterson (1986), Borg (2001), and Schommer (1998), we posit that beliefs can act as guides to thought and behaviour and can strongly influence individual working and learning

practices. More specifically, teachers' beliefs about the goals of education and pedagogy influence their pedagogical practices (Denessen 1999; Hamilton 2018). Teachers' beliefs about the goals of education refer to goals that are considered important in terms of general development and schooling. These beliefs can be divided into orientation towards (1) qualification and schooling (i.e. focus on pupils' qualifying for further education and jobs with necessary knowledge and skills) and (2) personal and moral development of pupils in general (i.e. focus on guiding pupils to adulthood and preparing them to function in a democratic society) (Belo et al. 2014). These beliefs are closely connected to the developments and the aims of teachers' pedagogical practices, as described previously.

Third, assuming that the school's vision can strongly influence teachers' practices, we include the coherence between teachers' personal educational vision and the educational vision of their school. Honig and Hatch (2004) note that coherence is relevant to make sense of complex ideas and demands (i.e. teaching). Coherence is described as the connection or correspondence between teachers' ideas of good education and the school's vision, as described in official school documents and operationalised in the school's policies. When full coherence exists, teachers experience a logical unity between their classroom practices and the school's policy (Ummels et al. 2015). In this context, Fullan and Quinn (2015) describe a shared vision among those who work at a school as essential to coherence. In contrast, when teachers' personal educational vision is only partial or does not correspond with the school's demands regarding 'good teaching', especially in times of educational reform, tensions, concerns and negative emotions can be elicited (Van den Berg 2002).

Goals and research questions

The first purpose of the present research is to examine primary school teachers' perceptions regarding their pedagogical practices. In line with the afore mentioned reforms, we hypothesise that teachers' pedagogical practices are under pressure. The second purpose is to determine whether teachers' pedagogical practices are influenced by teaching experience, teacher beliefs and coherence in vision between teacher and school. We formulated the following questions:

- (I) To what extent do primary school teachers experience pressure regarding their pedagogical practices?
- (II) How can teachers with varying degrees of experienced pressure be characterised according to their teaching experience, teacher beliefs and coherence in vision?

Method

Sample and procedure

We conducted a survey study with closed and open questions among Dutch primary education teachers. Data collection took place from November 2015 to February 2016. Teachers described their perceptions of pedagogical practices in the classroom, the school's educational vision, their personal educational vision, and personal characteristics.

We acquired informed consent from participants before they engaged in the research, and we also provided them with information about our research aims and procedures, research benefits, and usage of data.

We developed and tested the survey using a pilot of 22 teachers studying in the master's programme of the University of Applied Sciences. Our aim was to ensure the clarity of the questions and avoid misinterpretations or nonresponses/skipped questions. To address the few comments we received, we specified some of the wording in more detail.

Data collection took place in two phases; in total, 261 teachers from 115 primary schools in the northern part of the Netherlands participated in this study. In the first phase of data collection, we used convenience sampling, in which 134 teachers (response rate: 74%) completed a questionnaire as part of a lesson activity for their student. Bachelor's degree students, enrolled in a course on pedagogical practices, asked teachers at their schools to participate in this survey. In the second phase, we set up cluster sampling. The cluster consisted of teachers who work at schools that cooperate frequently with the University of Applied Sciences and had not participated in phase one. In addition, 127 other teachers completed an online version of the questionnaire using Survey Monkey (www.surveymonkey.com).

We excluded 46 records that had less than 65% responses from the analysis, which resulted in a sample of 215 respondents. Participants ranged in age from 21 to 66 years, with a mean age of 40.00 (SD = 12.09). Working experience as a primary school teacher ranged from one-half to 42 years, with a mean of 14.83 years (SD = 10.74). The sample consisted of 44 male teachers (21%) and 165 female teachers (79%). The mean age, male-to-female ratio, and teaching experience of the sample are representative of Dutch primary education (CBS 2016). Table 1 provides an overview of the general characteristics of the respondents.

Instruments

We investigated the pressure on TPP by constructing a questionnaire focusing on perceptions of pedagogical practices in the classroom, beliefs about teaching and learning, in general, teachers' and schools' educational vision, and background variables. We scored the closed items of the questionnaires on a five-point Likert scale, ranging from 1 = 'totally disagree', through 3 = 'neither agree nor disagree', to 5 'totally agree'.

To measure the pressure on TPP, we created closed items based on the three domains of TPP in our definition. We subdivided the aspect 'creating a safe and supporting learning

Table 1. Sample descriptions ($N = 215$).

Descriptive	Categories	Frequency	Percentage
Gender	Male	44	21
	Female	165	79
Teaching experience (years)	0–5	54	25
	5–10	37	17
	10–42	116	54
	Missing	8	4
Teacher qualification	MEd	42	20
	BEd	170	79
	MSc	3	1

climate' into teacher–pupil interactions and pupil–pupil interactions, so pressure related to four aspects were measured, namely (1) stimulating pupils' social, emotional and moral development; (2) creating a safe learning climate: teacher–pupil interactions; (3) creating a safe learning climate: pupil–pupil interactions; and (4) supporting pupils' psychological needs for learning, these formed the scale 'Experienced pressure on TPP'. Respondents rated how strongly they agreed with each statement. Reliability of the scale 'Experienced pressure on TPP' was sufficient (Cronbach's $\alpha = .87$). In addition, we asked the respondents in open questions to give an explanation and examples of their perceptions and feelings of pressure regarding their pedagogical practices.

We measured teachers' orientations towards teaching and the goals of education by using a shortened version (15 items) of Belo et al.'s (2014) questionnaire (based on Denessen 1999). The questionnaire contained learning/moral-oriented (LMO) and transmission/qualification-oriented (TQO) items. In our sample, the scales of the shortened version were reliable (Cronbach's α LMO = .86, TQO = .85).

To determine respondents' pedagogical vision, we asked them to describe in keywords their personal vision of pedagogy and the educational vision of their school. Furthermore, we asked them to identify the extent to which their personal vision corresponded with their school's (full, partial, or incomplete) and to explain why. Finally, we included questions about teachers' background variables (e.g. age, gender, teaching experience at primary schools, teaching qualification) and school demographics (e.g. size, denomination).

Data analysis

We used the quantitative data as a starting point to explore the findings, followed by an analysis of the qualitative data to gain deeper insights in the quantitative results and focus on teachers' explanations. We performed statistical analyses using SPSS software (version 23). Regarding Research Question I, we generated descriptive statistics to measure frequency, tendency and variation in the scale 'Experienced pressure on TPP'. After accordingly dividing the sample into three main groups, we conducted Student's *t*-test, analysis of variance and the Kruskal–Wallis test to investigate whether there were significant differences among groups in teaching experience, teacher beliefs and coherence in vision between teacher and school.

To analyse the open questions, one author and an encoder first thoroughly read the answers and coded them. Subsequently, we compared codebooks and discussed deviant codes and interpretations, such as the different coding of 'teaching pupils' and 'working with pupils' regarding teachers' personal educational vision. The third step was to code the data again, using the revised codebook categories. Last, we linked the categories to the scale 'Experienced pressure on TPP' to detect whether specific categories were related to the pressure teachers experience on their pedagogical practices. In addition, we asked the respondents to explain their perceptions of their pedagogical practices. To enrich our findings, we selected some representative respondents, whom we quote in the 'Results' section.

Table 2. Mean scores and standard deviations 'Experienced pressure on TPP-scale' ($N = 215$).

Items	M	SD
to what extent do you experience pressure on		
Stimulating <i>pupil's social, emotional and moral development</i>	3.30	1.09
Supporting <i>pupil's psychological needs for learning</i>	3.33	1.12
Creating a safe and supporting <i>learning climate</i> ; teacher–pupil interactions	3.03	1.16
Creating a safe and supporting <i>learning climate</i> ; pupil–pupil interactions	3.17	1.02
Total 'Experienced pressure on TPP-scale'	3.21	.93

Results

Pressure regarding teachers' pedagogical practices

Our first research question focused on the extent to which teachers experience pressure regarding their pedagogical practices. Of the 215 teachers who completed the questionnaire, a minority (6.5%) indicated that they experienced no pressure on their pedagogical practices, 17.2% experienced low pressure, 28.8% experienced moderate pressure, 34.9% high pressure and 12.6% of the responding teachers indicated that their pedagogical practices were under very high pressure. The mean and standard deviation values of the scale 'Experienced pressure on TPP' in Table 2 ($M = 3.21$, $SD = .93$) show that, in general, teachers experience pressure on their pedagogical practices. The mean values of the four items of pedagogical practices are all close to the mean of the scale 'Experienced pressure on TPP'. Respondents scored highest on the two aspects that focus on the individual pupil, namely, 'supporting psychological needs for learning' ($M = 3.33$, $SD = 1.12$) and 'social, emotional, and moral development' ($M = 3.30$, $SD = 1.09$). Teachers' pedagogical practices focused on group processes score slightly lower. The mean of 'creating a safe and supporting learning climate' for pupil–pupil interactions is 3.17 ($SD = 1.02$), and the mean for teacher–pupil interactions is 3.03 ($SD = 1.16$).

To enrich what this pressure on pedagogical practices looks like, we present a quotation from a teacher named Anna (respondent ID: 4299144087), who experienced high pressure on her pedagogical practices:

At our school the pressure is high to reach all of the learning goals, which causes me to feel stressed. I feel I will be held accountable for not achieving all of the goals. I especially experience discomfort when I continue with the scheduled program, while there is a lot of other stuff going on in my classroom, for example, when pupils have had a quarrel during break time. My gut tells me to stop whatever I am doing in class and discuss with the pupils what had happened. But I do not do that as it would mean the scheduled program will not be finished at the end of the day, which I would have to justify to my colleague. I am struggling with this, it makes me feel insecure and leads me to feel like a failure.

Anna's dilemma shows the tensions she experiences in her daily classroom practices. She feels pressured in the school's climate, where qualification and reaching goals play important roles. It makes her insecure and gives her a strong feeling of accountability for the learning outcomes of her pupils. She experiences discomfort in her daily practices in classroom, because she feels pressure to continue the scheduled program instead of paying attention to the quality of the classroom climate and interactions between pupils.

Differences in teaching experience, teacher beliefs and coherence

To answer Research Question II, we observed differences in teaching experience, teacher beliefs and coherence in vision, based on teachers' experienced pressure regarding their pedagogical practices. We divided the sample of 215 teachers into three main groups, according to the mean and standard deviation of the scale 'Experienced pressure on TPP'. Group 1 consisted of teachers who experience no/low pressure (score < mean – 1SD) and includes 25% of the respondents. Group 2 consisted of teachers who experience moderate pressure (mean – .5SD < score < mean + .5SD) and includes 40% of the respondents. The third group, made up of 35% of the respondents, consisted of teachers who experience (very) high pressure (score > mean + 1SD) (see [Table 3](#)).

We observed no significant differences based on experienced pressure in teaching experience and teachers' beliefs about learning and teaching ([Table 4](#)). We only found significant differences in the coherence variable. In the group of teachers with a partial coherence experience, we observed significantly more participants who experienced high pressure on their pedagogical practices ($p = .00$). We found a moderate correlation (Kendall's tau = .27).

When looking more specifically at coherence and pressure on pedagogical practices (see [Table 5](#)), we found that no respondents reported perceiving an incomplete coherence between their personal educational vision and the school's, 17% of the teachers noted that they had partial coherence, and 83% reported full coherence. Regarding the

Table 3. Three groups based on responses to the 'Experienced pressure on TPP-scale'.

<i>N</i> = 215	Exp. press.	Definition	Score	Group size
Group 1	No/low	–1SD	1.00–2.73	25%
Group 2	Moderate	+0.5/–0.5SD	2.74–3.67	40%
Group 3	(Very) high	+1SD	3.68–5.00	35%

Table 4. Group means, standard deviations and *p*-values on teaching experience and teacher beliefs about teaching and learning for the three groups.

	Group 1 (<i>N</i> = 54)		Group 2 (<i>N</i> = 86)		Group 3 (<i>N</i> = 75)		<i>p</i> -Value
	M	SD	M	SD	M	SD	
Teaching experience	12.58	9.03	16.02	11.29	14.69	10.94	.25
Teacher beliefs							
LMO	4.60	.33	4.53	.34	4.55	.53	.15
TQO	4.47	.43	4.33	.57	4.32	.67	.43

LMO, learning/moral-oriented; TQO, transmission/qualification-oriented.

Table 5. Descriptive statistics for 'Coherence between personal vision and school vision' for the three groups.

	Total sample (<i>N</i> = 215)	Group 1 (no/low press.) (<i>N</i> = 54)	Group 2 (mod. press.) (<i>N</i> = 86)	Group 3 (high press.) (<i>N</i> = 75)
Coherence personal and school's vision				
Full	83%	24%	34%	25%
Partial	17%	1%	6%	10%*
Incomplete	0%	–	–	–

* $p < .01$ (two-tailed).

percentages of teachers with full or partial coherence, we found that teachers who reported full coherence were scattered over the three groups similar to the total sample. In the group of teachers who reported that their personal vision only partially corresponded with the school's, significantly more teachers reported experiencing high pressure on their pedagogical practices.

To provide more insights regarding the relationship between coherence and teachers pedagogical practices, we used the qualitative results to describe the different explanations teachers gave for the coherence they experienced between their personal vision and the educational vision of their school. Teachers with full coherence indicated that teaching is very meaningful for them; they can work in a way they personally endorse. They feel connected to the school's vision and sense support for their daily practices, because the vision is broadly endorsed by the team. Some representative comments include:

From the start, I was involved in the process creating a renewed educational vision for our school, that's why school's vision is my vision. (4462359185)

Our vision is not fixed. With the complete school team, we flash out the concept, we refresh our vision when necessary, as with new technologies (ICT), and remain critical! (4495225791)

Teachers with partial coherence mentioned that the school's vision and classroom practices did not correspond and miss important elements. Some enriching explanations follow:

The written vision is hardly visible in practice. Beautifully written, but in classrooms not visible. (4528613071)

The vision is about student-centred education, but when I take a look in the classrooms, I still see very program-centred education and lack of opportunities to take the perspective of the child as a starting point for our education. (4307849821)

In school's vision, I miss elements of working together with parents: the triangle environment-school-parents isn't even mentioned. (4567908081)

Discussion and conclusions

The aim of the present research was to examine primary school teachers' perceptions regarding their pedagogical practices. Therefore, we first wanted to gain more insight into whether teachers consider their pedagogical practices under pressure. We also wanted to characterise teachers with varying degrees of experienced pressure, according to their teaching experience (Brekelmans, Wubbels, and van Tartwijk 2005; Van de Grift, Van der Wal, and Torenbeek 2011), their beliefs about teaching and learning (Borg 2001; Clark and Peterson 1986; Schommer 1998), and the coherence between their personal educational vision and that of their school (Honig and Hatch 2004). We found that 35% of the responding primary school teachers reported experiencing high pressure on their pedagogical practices, 40% reported experiencing moderate pressure and 25% reported experiencing no or low pressure. Although TPP are particularly aimed at pupils' social, emotional and moral development and psychological needs for learning, this finding is in line with Biesta's (2010) and Van Manen's (2008) theoretical studies, which argue that

socialisation and subjectification domains should receive more attention in current educational discussions.

The question of why 25% of the teachers reported experiencing no or low pressure on their pedagogical practices remains unanswered in this study. On the one hand, this group may consist of teachers who recognise the problem but have found a way to cope with it. Prior studies have noted that coping behaviour can mediate the relationship between experiencing pressure and behaviour (Montgomery and Rupp 2005). On the other hand, this group may consist of teachers who do not experience pressure on their pedagogical practices at all. The causes could vary, such as being able to balance all responsibilities in teaching, leaving more focus on subject-specific goals for pupils than on pedagogical goals, or feeling a low commitment to the teaching profession as a whole. Further studies that take coping strategies into account should seek more insights in these causes.

As shown in the results, we hardly found any differences among the four aspects of teachers' pedagogical practices (stimulating pupil's social, emotional and moral development; creating a safe and supporting learning environment for teacher–pupil interactions and pupil–pupil interactions; and supporting pupils' needs and conditions to learn), even though we measured them separately. A possible explanation is that for most primary school teachers, pedagogical practices seem self-evident and all aspects are important to them, such that they may have found it difficult to distinguish explicitly among these four aspects.

The second research question pertains to the relationship between teachers' perceptions of their pedagogical practices and teaching experience, beliefs about education, and coherence in vision between teacher and school. Although we expected that experience and beliefs would influence perceptions of teachers' pedagogical practices, we only found significant differences for coherence between teachers' personal educational vision and the school's educational vision. From the group of teachers who reported partial coherence, we observed significantly more teachers who experienced high pressure on their pedagogical practices. They mentioned that the school's educational vision did not fully correspond with their own vision and therefore experienced tensions in their daily pedagogical practices. They disagreed with the importance of certain elements in school's vision and find elements missing from it. These findings complement those of prior coherence studies; for example, Leithwood and Riehl (2003) find that having a shared explicit agreement on the educational vision is important, because it can guide teachers' behaviour. However, because the group with partial coherence is small in size, the data must be interpreted with caution. As mentioned before, we only found significant differences for coherence between personal and school vision. Other factors that might explain the feeling of being under pressure are based on the interplay between personal coping behaviour and contextual demands (Lazarus and Folkman 1984; Beltman, Mansfield, and Price 2011). These factors are, for example, the expanding teaching role and a significant increase in non-teaching-related (administrative) workloads (Ballet and Kelchtermans 2009), and the increasing diversity of educational needs in the classroom (Van Grinsven and Van der Woud 2016). These factors may also influence the pressure on TPP and seem to be important topics for the following qualitative in-depth study.

This finding also indicates that TPP under pressure may be a problem, regardless of teachers' experience or educational beliefs. Although it has been well established that

‘teachers matter’ (Day et al. 2007), we know that ‘the quality of teaching is also determined by the environment in which teachers work’ (OECD 2005, 9), and tensions teachers experience result from the interplay between personal and contextual factors (Johnson et al. 2014). Therefore, teachers’ professional context might be a significant determinant of the pressure teachers experience. Tynjälä (2008) shows, for example, how workplaces differ in the support they provide to teachers’ learning. We did not include these differences in the design of this study, but they would be a worthwhile field for further research. Moreover, DBDM and IE seem to be important influences, so we recommend further study with a focus on contextual factors to better grasp how these factors are involved in experiencing pressure.

Specifically, regarding teachers’ beliefs about learning and teaching, the primary school teachers in our sample scored very high on both learning moral-oriented goals and transmission qualification-oriented goals. We expected that teachers with more learning moral-oriented beliefs would experience more pressure regarding their pedagogical practices. One possible explanation for the lack of support for this hypothesis is the high scores on both types of beliefs in our sample. Consistently, Belo et al. (2014) also find that secondary school teachers in their sample had no explicit preference for one of the beliefs. Apparently, most teachers have a broad view on educational goals, valuing both types of goals, and do not experience them as opposite.

In this study, we focused on teachers’ perceptions regarding their pedagogical practices. These perceptions are not a stable entity but rather reflect a continually changing, active, and ongoing process, influenced by teachers’ personal characteristics and the professional context (e.g. Coburn 2004). According to Roorda et al. (2011), measuring teachers’ perceptions might reveal the reality of daily classroom practices only partially, whereas the actual number of teachers who experience tensions may be substantially higher. It would be worthwhile to focus more on their daily teaching practices through qualitative research (observations and interviews). In addition to their perceptions explored by a survey, to investigate the experienced pressure regarding their pedagogical practices with both teachers: those who experience pressure and those who do not, in order to better grasp, for example, different coping strategies or building professional resilience towards pressure.

Ultimately, this study builds on theoretical research into teachers’ pedagogical practices and extends empirical knowledge by showing that primary school teachers experience a variety of pressures regarding their pedagogical practices. One-quarter of the teachers in our sample reported experiencing low or no pressure; a more significant part (75%) reported experiencing pressure regarding their pedagogical practices. In follow-up studies, we will focus on the contribution of these results to possibilities of change at various levels: teacher education, school systems and policy level. At the level of teacher education, we will investigate whether developing ‘resilience’ can provide effective strategies for balancing different goals in teaching practices (Dinham et al. 2017). At the level of school systems, looking at multiple sources of decision-making (instead of focusing on qualifying data solely) and decreasing the administrative demands by giving teachers more professional space and agency might initiate change into school systems (Ben-Peretz and Flores 2018; Oolbakkink-Marchand et al. 2017).

Although we expected that teaching experience and teacher educational beliefs would influence teachers’ perceptions regarding their pedagogical practices, apparently we

found that the pressure on TPP is a general problem. The current findings also support the importance of coherence in vision between teacher and school for mitigating this pressure. This coherence seems to be related to the pressure teachers experience regarding their pedagogical practices. Investing in the process of formulating the school's vision together with the teachers can create more shared points of view on teachers' daily practices, thus reducing the pressure teachers experience and contributing to the quality of teachers' daily classroom practices.

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