TEACHERS' PROFESSIONAL LEARNING GOALS IN RELATION TO TEACHING EXPERIENCE

CHAPTER 2

TEACHERS' PROFESSIONAL LEARNING GOALS IN RELATION TO TEACHING EXPERIENCE[5]

ABSTRACT

In this study, we explored the relationships between teachers' self-articulated professional learning goals and their teaching experience. Although those relationships seem self-evident, in programs for teachers' professional development years of teaching experience are hardly taken into account. Sixteen teachers with varying years of experience and subjects were interviewed. The results show different professional learning goals, related to communication and organization, curriculum and instruction, innovation, responsibilities, and themselves as professional. Various relationships between professional learning goals and teaching experience emerged, which clearly reflect the development from early- to mid- and late-career teachers. Issues related to curriculum and instruction appeared to be learning goals for early- and mid-career teachers. This implies that regardless of increasing teaching expertise, curriculum and instruction (especially some subcategories related to Pedagogical Content Knowledge) remain central to teachers' continuous learning. Late-career teachers were interested in learning about extra-curricular tasks and innovations. Models of professional life phases (cf. Day et al., 2007) have been used to interpret these results.

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2.1 INTRODUCTION

Teachers are expected to develop professionally throughout their career, due to constant changes in teachers' everyday contexts and changing policies and innovations in the field of education (Knight, 2002). This development is referred to as *continuous professional development*, and is considered a crucial factor for improving teacher quality, schools, and teachers' impact on student learning (Day, Sammons, Stobart, Kington, & Gu, 2007; Opfer & Pedder, 2011). A point of criticism with programs for teacher professional development is that teachers themselves are not involved in choosing the content (Van Veen, Zwart, & Meirink, 2012). As a consequence, these programs often do not match teachers' specific concerns when it comes to their own professional learning (Czerniawski, 2013; Opfer & Pedder, 2011). Subsequently, teachers often experience professional development initiatives as misaligned with their particular professional learning goals and irrelevant to their classroom practice (Little, 2012; Webster-Wright, 2009). However, there have been relatively few empirical studies aimed at understanding teachers' professional learning goals.

At the same time, a common problem with programs for teacher professional development is that they are designed in line with current school demands and trends, rather than based on a coherent and well-considered learning course for teachers for a longer period of time (Borko, Jacobs, & Koellner, 2010; Little, 2012; Van Veen et al., 2012). Neither are these programs geared to teachers' years of teaching experience, and they are not designed to build on teachers' previous experiences (Fessler & Rice, 2010). All teachers are treated more or less as if they are on the same level and have similar learning goals. Due to different knowledge levels and professional preferences, teachers can be expected to have different learning goals at different moments in their career. Teacher professional development could benefit from a learner-centered approach building on teachers' learning goals, problems in practice, and the teaching experience already acquired.

Recently, studies have pointed to the importance of addressing teachers as active agents in educational change efforts (Czerniawski, 2013; Hoban, 2002) and as directing their own professional development (Lohman & Woolf, 2001). A necessary condition for teachers to be self-directed learners is that they diagnose and become aware of their learning goals first (Janssen, Kreijns, Bastiaens, Stijnen, & Vermeulen, 2012). For a better insight in how teachers diagnose what they want to learn it is of interest to study what teachers formulate as their professional learning goals and how this relates to teaching experience. This consideration has resulted in the following research question: *What is the relationship between teachers' professional learning goals and their years of teaching experience?*

2.2 CONCEPTUAL FRAMEWORK

2.2.1 TEACHERS' PROFESSIONAL LEARNING GOALS

In many studies on teacher learning the learning outcomes or learning activities within a specific educational reform or professional development context are examined (Bakkenes, Vermunt & Wubbels, 2010). However, teachers also learn when they engage in and learn from everyday classroom practice (continuous experiential learning) (cf. Czerniawski, 2013; Meirink, Meijer, Verloop, & Bergen, 2009), when they collaborate with colleagues

(Kennedy, 2011; Little, 2012) and from being part of a school system and its change processes (Hoban, 2002; Tynjälä, 2008). To understand *teachers' professional learning goals* as they emerge from their daily professional life and within their workplace setting, a situated inquiry is needed (Borko et al., 2010; Webster-Wright, 2009). Given this setting, we asked teachers about their experiences of professional learning and their current learning goals, which we will here refer to as teachers' professional learning goals (sometimes abbreviated to 'learning goals') (Opfer & Pedder, 2011; Webster-Wright, 2009). A learning goal is defined as a teacher's desired change in behavior or cognition (Bakkenes et al., 2010; Fenstermacher, 1994; Putnam & Borko, 2000).

Despite the fact that most teacher learning is typically reactive and unplanned (Vermunt & Endedijk, 2011), we focused in our study on teachers' intentional learning by asking teachers about their goals for professional learning. Intentional learning is easier to make explicit than implicit learning processes (Eraut, 2000). Also, because teachers can be considered active agents directing their own development as part of their professional life (Czerniawski, 2013), it was a logical step to focus on teachers' intentional learning. It is the only type of learning that can be taken into account in professional development planning (Janssen et al., 2012). Nonetheless, teachers might have difficulties defining concrete learning goals for themselves (Van Eekelen, Vermunt, & Boshuizen, 2006), which could result in methodological challenges when we try to get teachers to formulate learning goals.

2.2.2 TEACHER LEARNING RELATED TO TEACHING EXPERIENCE

Findings from previous studies seem to indicate that as experiential knowledge and skills increase, participation in professional learning or the motivation for learning decrease as teachers become more experienced (Day et al., 2007; Richter, Kunter, Klusmann, Lüdtke, & Baumert, 2011). Seen from a cognitive perspective, the expertise literature positions teachers as developing from novice, via advanced beginner and intermediate, towards expert teacher. For every stage different knowledge structures are distinguished, going from rule-driven, disorganized, and exemplary knowledge (novice) to an integrated, holistic, intuitive and situated knowledge base (expert) (Berliner, 2001). As a consequence, novice and expert teachers can be expected to differ in what they want to learn, why, and how.

Day et al. (2007) and Fessler and Rice (2010) have criticized earlier models of teacher development (e.g., Fuller, 1969) describing teachers' careers in fixed and linear stages, emphasizing pre-service, induction, and maturity phases. As an alternative, they suggest professional life phases which represent '[…] sequential stages that mirrored the timeline of teachers' experiences' (Fessler & Rice, 2010, p. 582) and can be distinguished by years of teaching experience (see Table 1.1 in Chapter 1). Most recently, Day et al. (2007) have shown that every phase can be characterized by different themes that are relevant to most teachers in the same phases of their careers. For example, Day's et al. (2007) first two phases (0 – 7 years of experience) include themes labeled Commitment [1] and Identity and Efficacy [2]; the third phase (8 – 15 years of experience) is called Managing changes in role and identity [3]; and the later phases (> 16 years of experience) are all related to Challenges to motivation and commitment [4, 5, 6]. The frameworks of professional life phases can provide insight into the variations in learning goals teachers formulate for

themselves. In this study we combined different models of professional life phases (Day et al., 2007; Fessler & Christensen, 1992; Huberman, 1993) and used these in interpreting our results.

2.2.3 WHAT DO TEACHERS LEARN IN THEIR CAREER?

Teachers differ in what they learn throughout their career. Feiman-Nemser (2001) introduced a teacher learning continuum in which early-career teachers' learning tasks are mainly related to content knowledge, students' characteristics, classroom management, and their own professional identity as a teacher (Feiman-Nemser, 2001). Later in their careers teachers focus more on extending subject matter knowledge, refining their repertoire, strengthening skills to improve teaching, and expanding responsibilities in the school (Feiman-Nemser, 2001). Although Feiman-Nemser based her continuum on the literature and her experiences as teacher educator, she did not explore what teachers themselves indicate to be central learning tasks related to their specific career phase.
In short, research (e.g., Day et al., 2007; Fessler & Christensen, 1992; Huberman, 1993) shows that there could be a meaningful relation between teachers' professional learning and teaching experience, but this has not been studied extensively, and a focus on teachers' own professional learning goals is lacking.

2.3 METHOD

2.3.1 RESEARCH APPROACH AND SAMPLE

To study teachers' learning goals as they emerge from classroom practice, a research design close to the context of teacher learning is needed (Putnam & Borko, 2000; Webster-Wright, 2009). We therefore opted for an in-depth, small-scale interview study in one secondary school.

Sixteen teachers from School 1 were interviewed. This particular secondary school offers education for five or six years, preparing students for vocational and university education, respectively. Recently, a workshop had been held on using technological innovations in the classroom to get students more involved. Moreover, the school was also investing in an induction program for beginning teachers, and ten experienced teachers had started a coaching course.

Prior to the interviews, a four-month period of acclimatization and socialization took place to learn about contextual factors that could influence teacher learning (see Appendix A). This period consisted of 60 classroom visits involving 30 teachers, and informal conversations with staff. From the teachers observed, 16 were selected for interviews, a selection first of all based on variation in years of teaching experience, and secondly variation in subject and gender (see Table 2.1).

2.3.2 INSTRUMENTS

Teachers do not regularly talk to others about their learning process, let alone their goals in furthering this process (Janssen et al., 2012). To study teachers' learning goals, we designed interview questions from various perspectives intended to support teachers in talking about their own learning (see Appendix B for interview questions). The combination of questions stimulated teachers to discuss such things as their concerns, recent learning

experiences and learning activities, feelings of mastery, and their aims and long-term plans (Janssen et al., 2012; Lohman & Woolf, 2001). From the various perspectives and the follow up-questions we were able to distil these teachers' professional learning goals.

Table 2.1 *Characteristics of teacher sample*

Characteristics	n
Men	8
Women	8
Years of experience[a]	
0 – 7	5
8 – 19	5
20 – 35	6
Subject domain	
Language	5
Science	5
Social studies	5
Other	1
Second career teachers	5
Teaching certification	
University degree	11
Non-university degree	4
No teaching certificate (yet)	1

[a] *This experience range was the result from combining the professional life phases of Day et al. (2007), Fessler and Christensen (1992), and Huberman*

2.3.3 PROCEDURE

All selected teachers were invited personally and agreed to participate. The interviews were semi-structured. After the interviews (approximately 75 minutes) had been conducted and transcribed verbatim, the teachers received the transcript of their interview to check whether they agreed with the text. In response to this member check, only two of the teachers suggested minor changes to the transcript.

2.3.4 ANALYSES

In order to develop a coding instrument to distinguish themes relating to teachers' learning goals, we created a list of domains derived from both open coding the interview transcripts (Miles &Huberman, 1994) and existing frameworks on teachers' knowledge structures (Magnusson, Krajcik, & Borko, 1999; Shulman, 1986; Van Driel & Berry, 2010) (see Table 2.2).

In this study, we defined learning goals as *desired change in behavior or cognition*. Sometimes teachers' learning goals were not specifically articulated as a goal but as an experienced deficit needing attention, as a concern in current practice, and as expected learning concerning a new task in the school. What these examples all have in common is that teachers explicate a wish to change something in their behavior or cognition, and that is why they were addressed as learning goals.

To analyze teachers' learning goals a data reduction of the interview transcripts was necessary; to this end, first a summary of each interview was made. Secondly, two researchers extracted key sentences from the summaries that represented teachers' learning goals according to the definition of a learning goal. Subsequently, they coded these key sentences independently from each other, which resulted in learning goals receiving a code from Table 2.2. Next, selected key sentences and codes were compared, disagreements were discussed, and adaptations made. As a final step in the analyses of teachers' learning related to teaching experience, a cross-case analysis was performed (Miles & Huberman, 1994). Therefore, we divided teaching experience into three broad categories, namely early career (0 – 6 years), mid career (7 – 18 years) and late career (19+ years). With the cross-case analysis we aimed to examine whether there were similarities and differences in learning goals across early-, mid-, and late-career teachers.

Table 2.2 *Codes and definitions for domains of teachers' professional learning goals*

Code	Domain of Learning Goal	Definition
1	Communication and classroom organization	Goals that deal with classroom rules, structure during the lessons, and classroom management; creating a safe learning environment; creating good teacher-student relationships. (cf. Shulman 1986)
2	Instruction and curriculum	Goals related to improving subject-related teaching strategies with regard to knowledge of a) instruction, b) students' learning, c) curriculum, d) assessment, e) subject content (cf. Magnusson, Krajcik, and Borko 1999; Shulman 1986)
3	Socialization	Goals related to how teachers (intend to) socialize themselves within their school environment and with regard to their colleagues/ management.
4	Technological innovation	Goals triggered by working with (technological) innovations inside or outside the classroom which challenge the teacher and are often described as 'something new'.
5	Extracurricular tasks	Goals related to a particular non-teaching task of the teacher, or a specific position teachers fulfill in the school.
6	Teacher as professional	Goals related to problems teachers encounter while executing their job, and which affect their 'professional behavior'.

2.4 RESULTS

An overview of the different domains of professional learning goals relating to varying levels of teaching experience is presented in Table 2.3. The average number of learning goals per experience range was highest for early-career teachers, and lower for mid- and late-career teachers. It was only early-career teachers who formulated learning goals in terms of communication and classroom organization, whereas learning goals pertaining to curriculum and instruction were formulated by all teachers across the sample, although mostly by early-career teachers. Learning about technological innovations in the classroom and learning related to extracurricular tasks were typical of mid- and late-career teachers. Learning about yourself as a professional was mentioned only by early- and mid-career teachers.

Table 2.3 *Frequencies and means of teachers' learning goals related to teaching experience*

	Years of Experience						Total	
	Early 0 – 6 (*n* = 5)		Mid 7 – 18 (*n* = 5)		Late[a] 19+ (*n* = 4)		(*n* = 14)	
Domains of learning goals	*f*	m	*f*	m	*f*	m	*f*	m
1. Communication and classroom organization	6	1.20	0	0.00	0	0.00	6	0.37
2. Curriculum and instruction	11	2.20	7	1.40	1	0.25	19	1.19
3. Socialization	1	0.20	0	0.00	0	0.00	1	0.06
4. Technological innovation	0	0.00	1	0.20	3	0.75	4	0.25
5. Extracurricular tasks	0	0.00	4	0.80	1	0.25	5	0.31
6. Teacher as professional	3	0.60	4	0.80	0	0.00	7	0.44
Total goals	21	4.20	16	3.20	5	1.25	42	2.62

[a] *Two teachers did not formulate explicit learning goals and were therefore left out*

In the following we will discuss each learning domain in depth and in relation to individual teachers, taking their years of teaching experience into account (see Table 2.4 for an overview of each teacher's learning goals).

2.4.1 NO EXPLICIT LEARNING GOALS

Two teachers were not explicit about their learning goals: Paul [20][6] and Bernard [34] did not intend to learn new things and as a consequence could not indicate specific learning goals. For Bernard, for example, it was clear that there were no learning goals for him any longer because his students were satisfied and their exam results good:

> If students think that all goes well, then I don't have the idea that I necessarily have to change anything. (Bernard, [34])

[6] *Number between brackets are teachers' years of experience*

2.4.2 COMMUNICATION AND ORGANIZATION

Goals related to communication and organization, such as lesson structure, interacting with students, showing authority, and classroom management in general, were formulated by four early-career teachers and one mid-career teacher. Barbara [2] and Ryan [2] talked about lesson structure. For them it was important to learn about structuring the lessons so that classroom time is spent efficiently.

> Well I'm still working on effective and efficient. You know, I could be far more efficient with the time I have if I was far more structured, and I gave homework every day and I checked the homework and I had that kind of stuff you know. (Barbara [2])

Sara [4] and Duncan [<1] were concerned with classroom management. For them it was important to be perceived as an authority by their students.

> Or at least that [the students] have the impression 'oh, he is somebody, and he wants me to keep my mouth shut and pay attention, or else…', whatever that 'else' might be, but at least that they have the idea that they have to pay attention. And that is something that can definitely be improved, yeah. (Duncan [< 1])

2.4.3 INSTRUCTION AND CURRICULUM

Goals related to instruction and curriculum were formulated primarily by early- and mid-career teachers. With the early-career teachers, the goals were formulated as mastering skills for good instruction. With teachers with more than eight years' experience, the goals were more often formulated in terms of their day-to-day learning, for example slightly adapting instructions as a consequence of anticipating student mistakes made the previous day. We categorized this day-to-day learning only as a learning goal if it was the teacher's intention to change behavior. To understand this frequently mentioned learning domain better, we made subcategories based on a framework of Pedagogical Content Knowledge (PCK) (Magnusson et al., 1999). In the following, each subcategory will be discussed separately.

Instructional strategies

For nine teachers it appeared important to adapt their teaching to students' needs and to vary their instructional strategies. For Ryan [2] it was important to broaden his repertoire of instructional strategies, because he felt that he did not master enough ways of explaining scientific concepts to his students:

> Bending down to the student, that is really difficult for me in case of my 15-year-old students, but I hardly have lesson materials, I have been given hardly any tools to explain at that level. Sometimes my language is too difficult [for them], sometimes my language is too abstract, whereas they just want really concrete explanations. (Ryan [2])

For late-career teacher Patricia it was something she learns about on a daily basis, because she adapts her lessons instantly if she experiences problems with instruction.

> I have parallel classes and even after 27 years, you sometimes make wrong estimations, because I think, this is really easy and then it turns out not to be and then I can adapt it in the next class. (Patricia, [27])

Two early-career teachers (Sara [4] and Barbara [4]) mentioned activating students during instruction as an important way to get students more involved in their lessons and to let them produce spoken or written language and generate questions about the content of their subject.

> During the teacher education program I've created my own rule of thumb which is 'let them do the work' and that's something that I'm still working on, that I want to use more activating instructional strategies in my classes, because I think that students learn most in this way; you learn a language by using it. (Sara, [4])

Students' learning process

Two early-career teachers (Duncan [<1] and Barbara [2]) wanted to know more about how their students are learning their subjects and how as a teacher you can tap into that learning process.

> Because I know how I see it, but I see it as, you know, as a financial economist that has been years and years in the field, so, but also as a mother and a citizen and you know. But they are not mothers and citizens yet and they're not financial economists yet. So, they experience it in a really different way. And so I'm building on getting in touch with how they experience economics. (Barbara [2])

Curriculum development

Four early- and mid-career teachers (Sara [4], Susan [4], Richard [18] and Courtney [10]) wanted to learn how to design curricula for all the year level of their subjects.

> I've been appointed to adapt that curriculum to the new standards issued by the ministry, and I can see growth in that and that also connects directly with the content of the lessons (Richard [18])

Designing assessments

Two early-career teachers (Susan [4] and Sara [4]) were concerned with how to properly design assessments to assess particular skills their students need to master.

> but fluency, for example, that is really the biggest challenge of all language skills, certainly in such a big class. I can't let them all present, because I then lose 15 lessons, you see, that kind of problem (Susan [4])

Content knowledge

Two teachers indicated they wanted to learn about the content of their subject. Either because they felt insecure teaching content in which they have less expertise (Sara, [4]), or because they thought it is necessary to dive deeper into the content to enliven their lessons (Richard, [18]).

Table 2.4 *Professional learning goals per teacher related to teaching experience*

EARLY CAREER 0 – 6 YEARS	**DUNCAN (0.5)[a]** 1* Classroom management 2 Differentiate between students 2 Varying instruction 3 Being aware of school rules	**RYAN (2)** 6 Saving energy 1 Structure during the lesson (transitions) 2 Increase variety of instructional strategies	**BARBARA (2)** 1 Structure lesson efficiently 2 How students experience my subject (Economy) 2 Activating students (applying knowledge) 1 Flexible in handling own classroom rules
	SUSAN (4) 2 Adapt teaching to student level 2 Developing curriculum and assessing skills	**SARA (4)** 1 Classroom management 2 Instructional strategies to activate students 6 Deal with lack of time 2 Assessment of students' skills 2 Curriculum development 6 Be a professional 2 Content knowledge	
MID CAREER 7 – 18 YEARS	**COURTNEY (10)** 2 Curriculum development and assignments 4 Use ICT applications 5 Coaching novice teachers 6 Be a professional 2 Innovation in instruction	**GERARD (10)** 6 Organize my work better 2 Varying teaching methods 5 Becoming a manager	**ANNA (12)** 2 Continuously adapting instructional strategies 6 Asking for help when problems occur
	RONDA (12) 2 Continue adapting instruction (improvise) 1 Improve interaction with students 5 Coaching novice teachers	**RICHARD (18)** 5 Coaching novice teachers 2 Deepening content knowledge 2 Curriculum development	
LATE CAREER 19+ YEARS	**PAUL (20)** 0 No explicit learning goals	**HENRY (20)** 4 Activate students by using ICT in the classroom	**PATRICIA (27)** 4 Use more ICT in the classroom 2 Continuous adaptation of instruction
	PHILIP (29) 5 Developing as coach for novice teachers	**VICKY (30)** 4 Use ICT (social media/games)	**BERNARD (34)** 0 No explicit learning goals

Note. Under each name the core learning goals of this particular teacher are summarized. a Names are pseudonyms, numbers are years of experience *The numbers indicates the domain to which this goal belongs. 1 = Communication and classroom organization, 2 = Curriculum and Instruction, 3 = Socialization, 4 = Technological innovation, 5 = Extracurricular tasks, 6 = Teacher as professional

2.4.4 SOCIALIZATION

Goals concerning socialization as a teacher in the school context were only mentioned by one teacher, namely Duncan [<1] who had been working at this school for less than a year. For him it was important to learn the often implicit school rules.

> Those are things like how it goes in schools, maybe a little bit more about rules in school. Rules that I'm not aware of but the students are (Duncan [<1]).

2.4.5 TECHNOLOGICAL INNOVATION

Goals relating to innovation were all related to the technological applications that were a topic of discussion in the school at the time of interviewing. The innovation goals were mentioned by mid- and late-career teachers. Three late-career teachers (Henry [20], Patricia [27], and Vicky [30]) were hesitant to try out new ways of teaching via technological innovations, and some mentioned they did not feel comfortable using the digital blackboard in their classroom (Patricia [27]). The goals were formulated in terms of 'learning how it works' for late-career teachers and 'learn more about it' for mid-career teachers. Early-career teachers did not mention this as a learning goal.

2.4.6 EXTRACURRICULAR TASKS

These kind of goals were mentioned predominantly by mid-career teachers, and had to do with skills they needed for specific extracurricular tasks they were doing or planning to do.

An extracurricular task frequently mentioned was learning about coaching beginning teachers (Courtney [10], Ronda [12], Richard [18], and Philip [29]). Two teachers (Philip, Ronda) were experienced coaches and stated they were still learning a lot while coaching novice teachers (e.g., about their own teaching), while two mid-career teachers (Courtney, Richard) were in the middle of a coaching course and wanted to develop their coaching skills further by improving their conversation techniques and learn how to adapt their coaching to the learning needs of beginning teachers.

One mid-career teacher (Gerard [10]) expressed a wish to become a manager in the school. He wanted to climb the career ladder for several reasons: salary increase, more influence in school processes, and more variety in his work. To become a manager he has asked for feedback from one of the school leaders, and has requested permission to do a course on school management next year.

2.4.7 TEACHER AS PROFESSIONAL

These particular learning goals have to do with organizing your work better and act more professionally inside and outside the classroom, and were addressed by five early- and mid-career teachers. One early-career teacher, Ryan [2], wanted to learn how to save energy while teaching, because he feels really tired after a day full of lessons.

> I notice that teaching still takes a lot out of me, I spill a lot of energy. And I say spill because I think that I can achieve the same learning effect with less energy, the same student outcome. (Ryan [2])

Another example is mid-career teacher Gerard [10], who finds he is a bit chaotic in his work and sometimes does half work, so he wants to organize his work better. Anna [12]

said she needs to learn to address problems in her work (e.g., heavy workload) in time, by asking colleagues or managers for help. Both Gerard and Anna are aware of their role as professionals in terms of organizing their work more effectively.

2.5 CONCLUSION

Regarding the kinds of professional learning goals distinguished by teachers, our results have shown that a distinction can be made between learning connected with teaching practice, and learning connected with the school as a workplace. Teachers' learning goals were not aimed solely at improving their own teaching practice, but also at development as a professional (e.g., organizing their work load), their additional role within the school (e.g., coaching beginning teachers), and at issues currently encountered at the school (e.g., the use of technological innovations).

When relating this to teachers' years of experience, we found that after approximately 7 years of teaching learning goals were also aimed at broader themes outside the classroom, and at new challenges besides the goals related to their teaching practice. For example, mid-career teachers started courses to become licensed coaches for beginning teachers, or they became responsible for curriculum innovation in their school. This is in line with the study by Feiman-Nemser (2001), who found that after sufficient experience with instructional methods, teachers can focus on their active role in the broader school community and look beyond the classroom for new roles and responsibilities (Feiman-Nemser, 2001). Adding variation in job tasks is also thought to relate to teachers trying to remain challenged and motivated in their job (Day et al., 2007).

Another result relating to teaching experience was our finding that communication and classroom organization was a topic mentioned only by novice teachers. The early-career teachers in our sample formulated learning goals aimed at classroom instruction and curriculum, classroom organization and communication, and being a professional teacher. This result is connected with Fuller's (1969) stages of novice teachers' concerns; first teachers focus on themselves, next, they are concerned with their instruction, and even later on, they are concerned with the impact of their teaching on their students. Nonetheless, it appears that the early-career teachers in our sample were concerned with all these three topics simultaneously, in a pattern resembling Feiman-Nemser's (2001) central tasks of induction. Thus, novice teachers do not only want to focus on mastering communication with their students, keeping order and managing their classroom, as is frequently suggested in studies on teacher induction, but also on improved curriculum and instruction and growing as professional.

All early- and mid-career teachers we interviewed wanted to learn about curriculum and instruction in relation to the subjects they teach. With regard to literature on teacher expertise development, expert teachers are thought to have a more routinized teaching repertoire and a more distinctive domain-specific knowledge base than novice teachers (Berliner, 2001). In our study, we did not focus on distinguishing experts from experienced teachers, but in our teacher sample most learning goals that remained important for experienced mid-career teachers were related to learning about curriculum and instruction, and more specifically in the subdomain 'varying instruction to meet students' needs'. It

seems that from the teachers' perspective it is this type of knowledge (PCK) aimed at increasing student subject understanding which is considered an important learning goal for continuous professional learning (Magnusson et al., 1999; Van Driel & Berry, 2010). Other teacher knowledge domains, such as 'communication with students' and 'organizing classrooms' might become routinized more easily as teachers' experience increases.

Learning about curriculum and instruction was not a learning goal for the late-career teachers in our sample. Apparently, they do not see a need to formulate learning goals regarding students' subject understanding and other classroom-related knowledge as these have become automated in their teaching repertoire. At least, it does not require their attention or awareness to learn about this. Rather than learning about classroom practice, they were more interested in learning about technological innovations and extracurricular tasks, since these were demanding issues within their professional lives at the time of interviewing.

In terms of professional life phases as described by Day et al. (2007), Fessler and Christensen (1992), and Huberman (1993) our early-career teachers seem to go through a phase of forming their own *identity and efficacy* as a teacher (Day et al., 2007) (cf. Fessler and Christensens's *competency building* phase), because they were concerned with how to effectively structure lessons and increase their repertoire of instruction methods. In addition, some of our early- and mid-career teachers experienced a phase of *change in role and identity* (Day et al., 2007) because they were searching for new ways to increase the impact on their students, and growing into new roles and responsibilities in the school. For two of our late-career teachers the later phase of Day et al. (2007) relating *challenges to motivation and commitment* was applicable, because they did not want to invest in their professional development anymore.

2.5.1 LIMITATIONS

A potential limitation of our study was that we, as researchers, stimulated teachers to talk about their learning goals and thereby interfered in their regular classroom routines. This might have made teachers not fully self-directive in their statements. Teacher learning is a topic which is not often talked about in schools. Without our interference, these teachers might have not thought of these goals for themselves. This lack of dialogue and shared language about learning would make it difficult for teachers to self-direct their on-going learning (Janssen et al., 2012). Our multi-perspective methodology used in the interview questions appeared to be really useful in getting teachers to talk about their own learning goals. Having somebody else close to their current teaching context (e.g., colleague or teacher leader) ask various questions about their learning experiences may help teachers to become more aware of their own learning experiences and could therefore function as a good starting point for teachers to formulate their learning goals.

Teachers' learning goals suggest a certain goal-directedness in teachers' preferred learning. For some teachers these goals are not explicit, but this does not mean they do not learn. Their learning is fed more by day-to-day improvements, comparable to Eraut's (2000) distinction between reactive and implicit learning. Taking deliberate learning (in this study: learning goals) as a central measure of teacher learning will create the impression that these teachers are not learning and could therefore have limited our

results. Therefore, it is advisable not to take learning goals as the only measure of teachers' commitment to learning.

2.5.2 IMPLICATIONS

If we want to organize teachers' continuous professional learning in such a way that teachers' experience is taken into account, it seems that for early-career teachers learning opportunities are required relating to the problems they experience in practice. Mid-career teachers could be supported by providing opportunities for growth in curriculum and instruction (especially instructional strategies and curriculum development) and broader responsibilities in their job. Late-career teachers can best be supported by offering learning opportunities about new developments such as technological innovations. These learning opportunities, adjusted to teachers' experience, could be facilitated by the school, for example by regularly inquiring after individual teacher's professional learning goals and taking a long-term view on teachers' learning (Van Veen et al., 2012). For teacher leaders an overview of the learning goals of the teachers within their team can indicate what learning opportunities they should give priority when facilitating or organizing teacher learning in their schools.