Developing teacher leadership and its impact in schools

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1. The gap between teacher development and teacher practice
For as long as teacher education has existed as a separate program within universities\(^1\), the relationship between the university and schools has been under debate. This debate reflects not only the constant struggle to bridge the gap between theory and practice but also the variety of views on teacher knowledge (focusing on practical and experiential knowledge or on theoretical and academic knowledge) and on the learning environment in which that knowledge is best acquired (Back, 2012; Darling-Hammond & Lieberman, 2012; Kennedy, Ahn, & Choi, 2008; Menter, Hulme, Elliott, & Lewin, 2010; Snoek & Beishuizen, 2010). The debate also reflects the shifting power relationships that define who is in charge of the education of teachers: schools, universities, or governments (Furlong, 2000; Snoek, 2007; Snoek & Žogla, 2009; Snoek, 2011b).

The gap between theory and practice implies that offering initial and post-initial programs for teachers does not automatically lead to changes in the learning outcomes of pupils and students. The relationship between the design of learning arrangements for (student) teachers and their actual impact on outcomes in schools is complex. In designing learning arrangements, a connection is assumed between the intended curriculum (the goal, expectations, and ambitions of the teacher educators towards their students); the actual design of the learning arrangement; the teacher’s development in terms of knowledge, competences, and skills; their actual performance and behavior in the classroom or school; and the learning outcomes of pupils or students. The effectiveness of the connection between these parts depends on several factors in the actual design of the learning arrangement, such as the coherence of the teacher education program (Darling-Hammond, Hammerness, Grossman, Rust, & Shulman, 2005) and the learning environment at the university and at the school (see, e.g., Timmermans, 2012; Van Velzen, 2013). Other factors at the school level include the effects of occupational socialization (Brouwer & Korthagen, 2005) and the extent to which the organizational climate stimulates or hinders transfer of learning and thereby influences the impact of learning arrangements on the workplace (Blume, Ford, Baldwin, & Huang, 2010; Bunch, 2007).

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\(^1\) By universities, we mean both traditional academic universities and universities for applied sciences (‘Hogescholen’).
Therefore, if we wish to understand and improve the impact of initial and post-initial teacher education on outcomes in the school, we must examine how variations in the design and context of learning arrangements for teachers influence this impact within the school.

This study aimed to improve our understanding of the relationship between post-initial teacher development and its impact in the workplace by examining different arrangements between universities and schools in the Netherlands. To narrow the scope of our research, we limited our focus to learning related to teacher leadership. Teacher leadership is understood to be the process by which teachers provide direction and exert influence on their colleagues, principals, and other members of school communities to improve teaching and learning practices with the aim of increased student learning and achievement.

Many studies on teacher development focus on development related to the individual pedagogical and subject-focused interactions that teachers have with pupils. In this research study, the focus shifts towards teacher development related to the general professional roles of teachers as innovators and researchers of their practice and as collaborators with and supporters of other teachers. The studies composing this research project examined post-initial teacher development in different contexts and with different relationships between universities and schools. Through these studies, we tried to identify how post-initial learning arrangements contribute both to the development of teacher leadership competences and to school development; we also attempted to identify which factors in the design of the learning arrangement play a role in this development.

In this introduction, we will present the general theoretical and contextual background of this research project. The theoretical background addresses the professionalism of teachers, the leadership of teachers, designs and contexts for teacher development, and the dynamics and boundaries between universities and schools. The contextual background covers recent policies and initiatives on teacher development in the Netherlands, with a focus on teacher inquiry, post-initial Master’s programs for teachers and the professional autonomy of teachers.

Based on this theoretical and contextual background, we present the problem statement and the research questions for this research project. We end this introduction with an outline of the overall structure of this book.

2. Theoretical background

2.1 The primary and secondary roles of teachers

Formal quality descriptions for teachers are primarily focused on basic competences in the teaching and learning process (Finnish Institute for Educational Research, 2009; Onderwijscoöperatie, 2012; Snoek et al., 2009). Within teacher education curricula in Europe, pedagogical competences, subject expertise, and the integration of theory and practice in teaching are
considered to be highly important. Much less importance is given to skills and competences with respect to continuing education and lifelong learning, quality assurance, and leadership (Finnish Institute for Educational Research, 2009, p. 79-80). However, in the debates on the roles of schools and teachers in society, the ambitions and expectations are broader. Teachers are expected to be open and responsive not only to the needs of their pupils/students and parents but also to the needs of future employers, politicians, and society in general. Teachers are expected to translate these needs into educational arrangements and to implement them in their curricula, to collaborate with colleagues, and to engage the wider community in setting objectives and designing teaching and learning arrangements. Teachers are expected to account for the quality and outcomes of their performance, to justify their activities through evidence from educational research, and to be role models for their students with respect to transversal competences such as entrepreneurship, lifelong learning, engagement in civil society, etc. These expectations exceed minimum standards for teacher education programs as they are formulated in many countries, which focus on the primary role of teachers in their classrooms. Teachers are asked to take on a secondary role in the sense of taking responsibility for improving their practice based on a careful analysis of issues and dilemmas, inspired by research on teaching and learning, and in close collaboration with their colleagues and stakeholders outside the school. This broader professional role of teachers is also recognized in the TALIS survey on the professional development arrangements of teachers:

‘This additional emphasis on secondary roles is also promoted as part of the modernisation of the teaching profession. They include teachers as researchers, as receivers of feedback from colleagues, as innovators, as active colleagues, as collaborators of principals, and as manifesting what is sometimes called “teacher leadership”.(…) These two dimensions – professional development to stimulate the primary process of teaching and learning and professional development in terms of new secondary roles in schools – provide alternative scenarios for prioritising the content of continuous professional development.’ (Scheerens, 2010, p. 191)

2.2 Teacher leadership

Teachers who take on such secondary roles may be considered to be teacher leaders within their schools (Frost & Harris, 2003; Hulsbos, Andersen, Kessels, & Wassink, 2012; Scheerens, 2010) who ‘influence their colleagues, principals, and other members of school communities to improve teaching and learning practices with the aim of increased student learning and achievement’ (York-Barr & Duke, 2004, pp. 287–288).

Teacher leadership is not a clearly defined concept, and definitions that are used often reflect different stakeholder agendas of policy makers, administrators and teachers themselves. As a result, appeals to strengthen teacher leadership might be based on various ambitions related to the expanding expectations and responsibilities of teachers, growing pressure
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for formal and public accountability, the activism expected of teachers, expectations with respect to decentralized school reform, ambitions to increase the status of teachers, or ambitions to change existing hierarchies within schools (Harris, 2007; Little, 2003; Sachs, 2003).

Within this study, the term ‘teacher leader’ implies an active and responsible role that exceeds the level of the individual teacher acting in his or her classroom, adding activities related to influencing and inspiring colleagues and the school as a whole. The identification of ‘leaders’ also implies the existence of ‘followers’ (DeRue & Ashford, 2010) who are influenced or supported by the ‘leaders’. The division into the roles of leaders and followers may be fixed through formal leadership positions that are mandated or delegated to particular experienced or accomplished teachers (Harris, 2007; MacBeath, 2009; Yukl, 1999). However, the relationship between ‘leaders’ and ‘followers’ may also be dynamic when each teacher is recognized as having the potential to exercise leadership as part of his or her role, when leadership is shared and distributed between all teaching staff, and when the roles of leader and follower may shift over time (Frost, 2012; Kessels, 2012; Lambert, 2002). Spillane (2006) identified this dynamic interaction between leaders, followers and the contextual situation as ‘leadership practice’.

Several authors on teacher leadership emphasize the connection between teacher leadership and involvement in research activities in schools (Harris & Muijs, 2005; Lieberman, Saxl, & Miles, 2000; Murphy, 2005). Involvement in research is considered to be one of the crosscutting activities of teacher leaders; it not only leads to a deeper understanding of pupil learning and how to support this learning but also leads to better preparation as agents of change within schools. In publications on teacher professionalism, for this involvement in research a wide variety of terms is used: action research, teacher inquiry, practitioner inquiry, self-study, teacher research, and participation in professional learning communities.

Within this research project, we understand the concept of teacher leadership as

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\text{the process by which teachers, individually or collectively, through development, inspiration and research, provide direction and exert influence on their colleagues, school leaders, and other school community members to improve teaching and learning practices that enhance student learning and achievement.}
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Teacher leadership demands specific skills and knowledge related to building trust with colleagues, understanding organizational context and dynamics, managing change processes, supporting adult learning, designing curricula, and participating in action research (Katzenmeyer & Moller, 2009; Lieberman et al., 2000). Initial teacher education programs hardly prepare teachers for leadership roles, leaving many teachers ill-prepared to exercise leadership outside of their classrooms. Several studies emphasize the need to build teacher leadership, stressing that its development requires new competencies taught through explicit learning arrangements and a learning process in which
frames of reference are adapted and new mental models of teacher roles and new identities are created (Frost & Harris, 2003; Murphy, 2005; Ross et al., 2011).

2.3 Contexts for teacher development
Because teachers are the key to enhancing learning in schools, it is essential that they have access to extensive learning opportunities (Bransford, Brown, & Cocking, 2000). As mentioned above, developing and exercising leadership require a learning process. We define this learning process as ‘the process by which, alone or with others, teachers review, renew and extend their commitment as change agents to the moral purpose of teaching and by which they critically acquire and develop the knowledge, skills, planning and practice to work with children, young people and colleagues through each phase of their teaching lives’ (Day, 1999, p. 4). This definition emphasizes that teacher development may encompass both a moral, attitudinal dimension and a technical, practical dimension. If we want teachers to develop their leadership qualities, it is important to identify which learning arrangements are effective in supporting the development of teacher leadership.

Within initial teacher education, the dominant learning arrangement is one in which the university defines the goals and assessment criteria and designs the learning activities. Schools are used as places for practice, and mentors in school are in some cases considered to be fellow teacher educators. The focus of the curriculum is on developing the basic competences needed to be an effective teacher. The program is primarily the result of rational design. Inspired by socio-constructive notions, program designs aim to stimulate students to develop and construct their teacher identity and teacher competences in interaction with teacher educators and peer-students, building on previous knowledge and experiences and mental models. Inspired by situated and experiential learning notions, program designs aim to challenge students to give meaning to and develop theories and taxonomies in relation to concrete social contexts in schools. Inspired by cognitivist notions, curriculum designs aim to develop and assess a general knowledge base of theories and taxonomies on subject matter and on teaching and learning.

In contrast, the designs for post-initial teacher development are mostly informal. In the Netherlands, post-initial teacher development is considered to be a shared responsibility between the individual teacher and the school leader as the employer. Learning arrangements could be individual or collegial, teacher-driven or school-driven, and formal-accredited or non-formal-non-accredited. Many schools have developed professional development plans in which (mostly non-accredited) school-wide professional development arrangements are planned in connection with the change agenda or quality agenda of the school, using internal or external expertise. Such designs for post-initial teacher development may be characterized as ‘school-centered’. These school-based professional development arrangements meet many of the criteria for effective professional development designs (Van Veen, Zwart,
Developing Teacher Leadership and its Impact in Schools (Meirink, & Verloop, 2010). They are characterized by a close relationship to the daily context and daily practice of teachers and to the wider process of school development. They are based on a collective approach through which teachers can collaborate and share experiences, and they create opportunities to build on the experiences of teachers and to involve teachers in defining or influencing the aims of the professional development design. However, most of these school-based professional development arrangements are limited in their intensity and duration. These arrangements appear to be more focused on skills and competences than on explicit theoretical knowledge and often lack formal criteria and procedures to assess learning outcomes. They have a limited relationship to the subjects teachers are teaching (especially in school-wide professional development arrangements in secondary schools) and have limited input from university experts and from evidence-based methods. It is unclear to what extent these professional development arrangements are based on an explicit theory of improvement or integrate an understanding of how teacher development, improvement of practice, and learning outcomes of pupils are related (Van Veen et al., 2010).

Recently, government policies have stimulated the participation of teachers in formal post-initial qualification programs, e.g., programs leading to a Master’s degree. Such programs are more or less similar to initial programs in that the university leads by defining the goals and assessment criteria and by designing the learning activities. The content of the program is primarily focused on academic and evidence-based content, which is often not directly connected to the local context or the change agenda of the school. Instead, schools are used as places to practice the competences and skills that are learned in the Master’s program. These programs are of high intensity and have a long duration. There is no collective approach, as mostly individual teachers apply. Such designs for post-initial teacher development can be characterized as ‘university-centered’.

2.4 Organizational factors influencing the impact of teacher development

To evaluate the effectiveness of different arrangements for teacher development, it is not sufficient to examine the competence levels of teachers; evaluations must also examine the extent to which these competences impact the workplace. In other words, research on arrangements for teacher development must consider a complex path connecting different levels of manifestation: the specific design for a learning arrangement; the expected outcomes for teacher knowledge, competences, attitudes and beliefs; the expected impact on teacher roles and performance within the school practice; and the expected changes in leaning outcomes for the pupils (or, in the case of teacher leadership, the learning outcomes of colleagues and their pupils) (Desimone, 2009; Kirkpatrick, 1998; Van Veen et al., 2010).

This transfer of learning cannot be considered the transportation of knowledge from one location to another (Cobb & Bowers, 1999). Nor is it a simple linear causal process from learning arrangement to competence improvement to the
application of these competences to improved results. The causal relations between the levels can be questioned, and the intervening variables that affect outcomes must be explicitly considered (Holton III, 1996). In the literature on learning transfer, three negotiating elements are identified that impact learning transfer and thus the effect that learning arrangements have on outcomes for a company or organization (Baldwin & Ford, 1988; Boshuizen, 2003; Gielen, Streumer, & Van der Klink, 2004; Van der Klink, 2012). Not only do the learning design factors (e.g., objectives, methods and opportunities for practice) and trainee characteristics impact the actual application of learned competences or skills at the workplace, but work environment factors also play an essential role in application in the workplace. Work environment factors address the characteristics of the workplace and the extent to which the organizational climate invites and supports teachers to apply learned competences and skills. These elements in the social support structure of the work environment are indicated by the term ‘organizational transfer climate’ (Hatala & Fleming, 2007; Lim & Morris, 2006; Rouiller & Goldstein, 1993).

This understanding of the importance of the organizational transfer climate implies that creating favorable conditions for the effective application of newly developed leadership competences in schools is the responsibility of not only the program designers at the university but also the key stakeholders in the school. Studies in human resources have addressed this issue by emphasizing the ‘corporate curriculum’, the organization’s perspective on a learning design that aims for mutual effects at the individual and organizational behavior levels (Kessels, 1993). Kessels draws attention to ‘external curriculum consistency’: ‘the homogeneity of the notions of parties involved on what the problem is and how it can be solved by means of educational provisions’ (Kessels, 1993, p. 27). Such consistency between the change agenda of the school and the aims of the learning arrangements for teachers can create the conditions for change processes in which learning of individuals and innovation of dynamic systems merge (Boonstra, 2000). In the context of a Master’s program in teacher leadership, curriculum consistency implies a shared perception of the curriculum’s aims and design among school management and supervisors, participants and university course designers and teachers.

2.5 Boundary learning in boundary zones
Creating this shared perception and external curriculum consistency in the context of learning arrangements for teacher leadership demands cooperation between representatives who are part of two separate activity systems (Engeström, 2001), the school and the university, which are separated by boundaries; see figure 1.1 (Engeström, 1987; Tsui & Law, 2007; Wenger, 1998, Yamagata-Lynch & Haudenschild, 2009). These activity systems are characterized by different subjects (school teachers vs. university teachers), different objects (pupils vs. participants in the teacher education program), and intended outcomes (exam results of pupils vs. qualification of teachers). The working relationships within each activity system are characterized by different
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mediating tools (lessons and tests vs. research projects, assignments and assessments), rules (school rules, protocols and exam demands vs. university rules, research criteria and qualification demands), and community (teaching staff vs. team of teacher educators). Finally, each activity system features differences with respect to division of labor.

Figure 1.1: School and university as separate activity systems.

In (initial and post-initial) teacher education, these two activity systems must interact. Interaction demands a process of boundary crossing: school teachers and university teachers engage in activities in the other activity system. This notion of boundary crossing may be understood in two ways. A practical and often also physical form of boundary crossing occurs when the school teacher involved in teacher development programs participates in the academic world of the university or when the university teacher engaged in school-based CPD activities crosses the boundaries by engaging in the practical world of the school (Tsui & Law, 2007). A mental form of boundary crossing with respects to concepts and ideas occurs when teachers apply theories or skills learned in academic or training settings within the day-to-day context of the school or when they bring daily issues and dilemmas from school to the university for further analysis or study.

Because both activity systems have a different focus, different concerns and are based on different norms, their permeability may be limited. The process of boundary crossing between these activity systems cannot be taken for granted, as each of ‘these multiple contexts demand and afford different, complementary, but also conflicting tools, rules and patterns of social interaction. Criteria of expert knowledge and skills are different in the various contexts. Experts face the challenge of negotiating and combining ingredients from different contexts to achieve hybrid systems.’ (Engeström, Engeström, & Kärkkäinen, 1995, p. 320).

Effective boundary crossing between two activity systems will impact both activity systems (Miedema & Stam, 2008). The space in which both activity systems meet can be considered the ‘boundary zone’ (Miedema & Stam, 2008; Tsui &
Law, 2007) or ‘third space’ (Gutiérrez, Baquedano-López, & Tejeda, 1999), a ‘no man’s land’ (Miedema & Stam, 2008) where subjects, objects, tools, rules, communities and divisions of labor from the two activity systems interact, are reflected upon and are the object of professional dialogue. Examples of such a boundary zone might be a post-initial Master’s program (Tsui & Law, 2007) or a learning community of teachers and researchers, working together on research projects in schools (Gorodetsky & Barak, 2008). Akkerman and Bakker (2011) indicate that within such boundary zones, boundary objects may have a specific function in bridging intersecting activity systems and facilitating boundary learning. Such boundary objects within the context of a Master’s program could be concrete research projects, assignments, or lectures. Akkerman and Bakker showed that the new understandings developed in such boundary zones and through such boundary objects can result in different types of boundary learning with different impacts on the activity systems and participants. However, little is known about the conditions related to the boundary zone and the original activity systems that will influence this boundary learning.

In the context of this research project, we will examine different post-initial learning arrangements focused on teacher leadership and their impact at the workplace and how the organizational transfer climate and boundary activities bridging the activity systems of schools and universities hinder or strengthen this impact.

3. Contextual background

3.1 The development of an extended profession in the Netherlands

As indicated, the context of this research project is post-initial teacher development in the Netherlands. The studies are situated in a dynamic policy context in which national and local policies attempt to stimulate teacher quality, teacher development, and teacher leadership.

Starting in 1993, a governmental policy focusing on improving the professional quality and status of teachers and on reducing the professional isolation of teachers has emerged (Commissie Toekomst Leraarschap, 1993; Ministerie van OCW, 2005a; Ministerie van OCW, 2007; Ministerie van OCW, 2011; Rinnooy Kan, 2007). The primary elements of this policy are as follows:

- The development of a new legislative framework for the teaching profession (Ministerie van OCW, 2004), including professional profiles and standards for teachers (Ministerie van OCW, 2005b);
- The development of coherent human resource policies in schools, including the involvement of schools in initial teacher education;
- The introduction of profile levels connected to differentiated salary scales, thus creating career paths for teachers;
- The introduction of a bursary system for teachers to engage in post-initial Master’s programs (‘Lerarenbeurs’).
Recent policy initiatives include the following:

- The creation of a professional body to take responsibility for the quality of the profession by developing professional standards and a professional register (‘Onderwijscoöperatie’);
- The introduction of a professional register for teachers (‘Registerleraar.nl’) in which teachers can document their ongoing professional development.

In the Dutch policy context, the focus on teacher leadership may be recognized in policy initiatives stimulating teacher inquiry in schools and post-initial master programs and may be seen in debates on the professional autonomy (‘professionele ruimte’) of teachers.

3.2 Teacher inquiry in schools

In 2005, the Dutch Ministry of Education, Culture & Science (OCW) launched a program to support schools that, as partner schools to teacher education institutes (‘opleidingsschool’), had the ambition to combine their engagement in the initial education of teachers with school development, innovation, and research. These schools could apply for the status of academic development school (‘academische opleidingsschool’). An academic development school is more or less similar to the concept of a Professional Development School (PDS) (Holmes Group, 1990) and is defined by the Ministry as ‘a school that combines their involvement in the (initial) education of teachers with a practice-oriented research and innovation component’ (Ministerie van OCW, 2005c). In such schools, teachers may develop a research role to improve their teaching practice. Based on a school-wide research plan, teachers and student teachers participate in research projects that aim to improve teaching practice. These research projects are often designed and conducted in close cooperation with teacher education institutes and research institutes (KPMG, 2008).

Stimulated by this program, the attention on the role of teachers in practice-oriented research has expanded (Broekkamp & Van Hout-Wolters, 2007; Onderwijstraad, 2011b; Snoek & Van den Herik, 2012; Vrijnsen-de Corte, 2012; Zwart, Van Veen, & Meirink, 2012). Several schools have engaged teachers and school leaders in research projects, strongly supported by teacher education institutes (see, for example, Bruin, 2012; Krüger, 2010; Sengers, Richter, Wilshaus, & Van der Linden, 2009; Snoek & Van den Herik, 2012; Van Riessen, 2010; Van Wijk, 2013).

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2 In international research publications on developments in teacher education in the Netherlands, the Dutch terms ‘opleidingsschool’ and ‘academische opleidingsschool’ are translated in various ways. For example, Van Velzen (2013) uses the term ‘partner school’ within school-university partnerships, Vrijnsen-de Corte (2012) remains with the international term Professional Development School. Hammerness, van Tartwijk and Snoek (2012) use the term ‘training school’. Because the term ‘training’ is nationally and internationally considered to be too narrow to be used within the context of teacher education and the term ‘partner school’ only indicates a relational aspect and gives no information about the actual focus, we will use the term ‘development school’, and we differentiate between ‘teacher development schools’, which combine their focus on pupil learning with a focus on the (initial and post-initial) teacher development (opleidingsschool), and ‘academic development schools’, which combine a focus on teacher development with a focus on school development and research (academische opleidingsschool).
3.3 Post-initial Master’s programs for teachers

The introduction of the Bologna model for higher education has led to several European developments with respect to Master’s level teachers (Snoek, 2009a). Within the Netherlands, these developments are reflected in impulses to develop post-initial Master’s programs within the education sector. The Ministry (Landelijk Platform Beroepen in het Onderwijs, 2006; Ministerie van OCW, 2005a; Ministerie van OCW, 2007; Ministerie van OCW, 2011), the Dutch Education Council (Onderwijsraad, 2011a; Onderwijsraad, 2013a), higher education institutions (HBO-raad, 2006), and the unions (Algemene Onderwijsbond, 2006) consider Master’s programs to be an opportunity to increase the quality and status of teachers.

Next to existing Master’s programs preparing teachers to work in upper secondary education or in special needs education, new Master’s programs have been developed that focus on extended professionalism and teacher leadership (Snoek, 2009b). These programs have been initiated by universities for applied sciences (HBO-raad, 2006; Snoek & Teune, 2006) and by school boards for secondary schools (NIME, 2008; Snoek & Galjaard, 2011).

To stimulate the participation of teachers in these post-initial Master’s programs, the Ministry of Education, Culture & Science initiated a bursary system through which teachers working in school can apply for grants covering course fees and replacement costs. The bursary system has become enormously popular; from 2008 to 2012, 18,000 teachers applied for funding for a Master’s program (Ministerie van OCW, 2012).

3.4 Professional autonomy of teachers

During 2005-2010, many teachers complained that they had lost a sense of ownership of their daily work. Particularly in secondary and vocational schools, many teachers felt that they were victims of government-initiated curriculum innovation programs or of school leaders who, due to their increased accountability towards educational outcomes, interfered more directly in the teaching and learning process in schools (Onderwijsraad, 2007; Snoek & Krüger, 2007; Verbrugge & Verbrugge-Breeuwsma, 2006). In response to this feeling of de-professionalization, several initiatives were started to strengthen professional responsibility and sense of ownership of teachers towards the process of teaching and learning (Ministerie van OCW, 2011).

To engage teachers more intensively in school development processes, school leaders are encouraged to involve them more explicitly in decisions concerning curriculum and teaching. In national policy making on teaching and the teaching profession, teachers are more intensively engaged as key stakeholders. To strengthen the voice of teachers, the Ministry has supported the development of a national professional body for the teaching profession (the Onderwijascoöperatie). This professional body has a leading role in (re)formulating professional standards for teachers and in establishing a professional register for teachers connected to a minimum required amount of professional development activities. This professional register is intended to be an instrument that accounts for the
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professional quality of its members. In addition, both the Ministry and the Onderwijscoöperatie stimulate peer review as an instrument of collaborative learning in schools.

This appeal for stronger professional involvement, ownership, and engagement demands a professional culture in schools, where school leaders and teachers share the same goals and work collaboratively to reach these goals (Onderwijsraad, 2007). At the same time, teachers are expected to include extended professionalism (Snoek & Dietze, 2007), leadership (Kessels, 2012), and moral dimensions in their professionalism (Onderwijsraad, 2013b).

These three developments in educational policy in the Netherlands show a strong commitment to (increasing) teacher leadership, in terms of leading innovations in curriculum and teaching, collaborating with and supporting colleagues, and engaging in research. At the same time, these developments create interesting contexts in which teachers’ leadership development occurs: in academic development schools and post-initial Master’s programs.

4. Research questions and design for this research project

As described above, there is increased attention on teacher leadership in the Netherlands. The government, school leaders and professional bodies of teachers are aware that strengthening leadership requires learning arrangements that support the development of teacher leadership competences. In the past few years, several of these learning arrangements have been developed that vary in their design: in academic development schools, for instance, the focus is on teacher inquiry, and the activity system of the school dominates the design of the learning arrangements; while in Master’s programs in which the primary focus is on teacher leadership, the activity system of the university dominates the design of the learning arrangements.

Little research has been performed on the impact of such learning environments on school development in terms of work and leadership practices in schools. In addition, there is little research on designs that explicitly attempt to bridge the boundaries between the two activity systems and attempt to create external curriculum consistency.

With this research project, we aimed to provide insight into

the extent to and the way in which post-initial learning arrangements that focus on teacher leadership and vary in their embedding in the work environment contribute to teacher and school development.

To achieve this aim, we answered four research questions:

1. What trends in society and education influence the design of learning arrangements for teachers and what is their impact on the dynamics between schools and universities?
2. To what extent and in what way do learning arrangements within an academic development school contribute to teacher and school development, and which aspects of school culture and school organization play a role in this contribution?

3. To what extent and in what way does a formal Master’s program for teacher leadership contribute to teacher development, to new leadership roles for teachers, and to school development, and which elements within the organizational transfer climate of the school stimulate or hinder these developments?

4. To what extent and in what way can an educational design that focuses on boundary crossing between the activity systems of the school and the university strengthen the impact of a Master’s program for teacher leadership on teacher development, on new leadership roles for teachers, and on school development?

The aim of the research project was threefold. The research project aimed to contribute to the knowledge on teacher leadership by producing insights into the process of and conditions for developing and implementing teacher leadership. Second, the research project aimed to contribute to the knowledge on effective arrangements for teacher development by producing insights into the design elements that strengthen the external curriculum consistency of these arrangements and increase the impact in terms of school development. Third, the research project aimed to contribute to the practice of teacher leadership by developing tools that may help to strengthen this leadership. Therefore, this research study focused on concrete contexts in which teacher leadership is being developed and in which teachers try to implement this leadership.

By focusing on the stories and narratives of teachers in these specific contexts, this research project attempted to gain insights into the underlying process of leadership development and implementation in schools (Hulsbos et al., 2012; Muijs & Harris, 2006; Ross et al., 2011) and into the dynamics of individual, relational, and organizational factors (DeRue & Ashford, 2010). Through the focus on stories and narratives, the studies recognized that teachers are not just objects for leadership programs but are active participants that reflect, develop, and give meaning to their leadership practice and who are active, thinking, and knowing subjects (Cochran-Smith & Lytle, 1999).

The empirical studies included in this research project were therefore designed as qualitative case studies, comparing different settings and contexts for developing teacher leadership. Through case studies, we recognized that contexts are unique and dynamic, and we tried to understand them in their holistic complexity (Sturman, 1999). Case studies can help to understand how ideas and abstract principles fit together in concrete contexts (Nisbet & Watt, 1984, pp. 72-73) using analytic rather than statistical generalization. This can result in a better understanding of other similar cases, phenomena, and situations (Robson, 2002).
In our study, we considered the general design of the arrangement for leadership development as a case. However, within each of the three cases we studied, part of the context differs, as the participants within each case came from different schools with different organizational conditions and cultures, or were part of different teams with different supervisors. Through this within-case-variation (Gerring, 2004), we obtained insight into the factors that will impact the process of teacher leadership development and implementation. Because these case studies are particularistic and descriptive, we aimed not for generalization (Merriam, 1998) but aimed to rethink the process of teacher leadership development and implementation; to gain a deeper understanding of the relation between professional development and school development; and to contribute to the development of new designs for leadership development and implementation that are effective for teachers and schools.

The case studies are elaborated through individual interviews with participants in the various arrangements for leadership development, through interviews with their supervisors, through observations of meetings and discussions and through focus group meetings (Morgan, 1988). By using these instruments, we both captured the multivoicedness of the contexts and created triangulation. In this way, we aimed to create a research design that is meaningful, closely connected to the daily practice of teacher leaders, developmental, dynamic, and participative (Hulsbos et al., 2012).

In recent years, I have not only been involved in these cases as a researcher; in the second and third case, I was also a designer of the Master’s program curriculum and served as an expert supporting the Master’s students and the university teachers; in the third case, I was a participant of the monitoring group. This involvement is part of the strength of the research design because the outcomes of the research within the second case were fed into the redesign process, which created the context for the third case. In addition, my involvement gave me the opportunity to follow the process within these two cases from close by and allowed me easy access to participants, supervisors, and the strategic management of the schools. However, this dual involvement as a designer/teacher educator and as a researcher carries the risk of bias and a lack of objectivity, caused by the wish to prove the value of the design. Therefore, to avoid a possible biased perspective as a researcher, several measures are taken. In the second case study, a member check was used, and three independent experts conducted a check on the analysis of the interviews. In the third case, a separate independent researcher was involved in the analysis of the interviews and the formulation of the conclusions. The focus group sessions at each school functioned as additional member checks.
5. Outline of this research project
The above research questions will be answered in the next chapters. Chapters 2, 3, 4, and 5 represent the core of this research project, as each chapter addresses one of the research questions. The research chapters alternate with intermezzos, which reflect on the previous research chapter and introduce the next research chapter.

Chapter 2 focuses on the trends in society and education that influence the design of learning arrangements for teachers; it also focuses on the possible impact that these trends might have on the dynamics between schools and universities. The research question is answered by analyzing 48 scenario documents on the future of education or on teacher education. Through this analysis, a set of unpredictable key factors is identified that must be considered when addressing the future of teacher education and teacher development. The analysis also revealed the roles of the three key stakeholders: governments, schools, and universities. Based on the interaction between these different stakeholders in each scenario document, four potential prototypical futures emerged for teacher education: a market oriented scenario; a bureaucratic scenario; a scenario dominated by professional groups of teachers and teacher educators; and a scenario dominated by boundary crossing networks. These four scenarios were analyzed using the concepts of activity systems and boundary crossing (see figure 1.2).

![Figure 1.2: Three activity systems involved in learning arrangements for teachers](image)

The analysis of the scenario documents reveals that the future for teacher education is largely defined by two factors: the extent to which activity systems are open to boundary crossing and the willingness of key stakeholders to cross or remove institutional boundaries.
The *first Intermezzo* following Chapter 2, will reflect on the extent to which the four prototypical scenarios may be recognized within the Dutch context for teacher development. Based on this reflection, the three different contexts for developing teacher leadership are described; these will be the focus of the empirical case studies in Chapters 3, 4, and 5.

In *Chapter 3*, the first case study is presented, focusing on the academic development school as a context and arrangement for teacher development. Within the academic development schools that are the context for this study, the design of the learning arrangement for teachers was based on experiential learning and almost entirely arranged within the context of the school, with limited support from the university (see figure 1.3).

![Figure 1.3: The schools as the dominant system in academic development schools: a school-centered learning arrangement](image)

The study showed that the engagement of teachers in research projects within the school can contribute to development at three levels: that of individual teachers, that of teams of teachers and that of the school as a whole. The study also identified important conditions within the school that facilitate effective professional development of teachers and stimulate or hinder opportunities for teachers to exert their leadership within the school.

In the *second Intermezzo* following Chapter 3, the second context for developing teacher leadership will be introduced: accredited designs in terms of formal Master’s programs focusing on teacher leadership. The context and the design of the specific Master’s program that is the focus of the second and third case study will be elaborated.

The second case study, presented in *Chapter 4*, focused on an accredited
Master’s program specializing in teacher leadership. The design of this program was defined by the university and was based on quality criteria defined by the government with limited involvement of the school (see figure 1.4).

Figure 1.4: The university as the dominant activity system in Master’s programs for teachers: A university-centered learning arrangement

The objective of this study was to investigate the extent to which the design of the program supports the development of teacher leadership and the opportunity to assume leadership roles in schools. Because Chapter 3 emphasized the importance of organizational and cultural conditions in schools, special attention was given to the elements of the organizational transfer climate in schools that are considered to be critical for enhancing or hindering the use of teacher leadership competences and their impact on school development.

The third intermezzo following Chapter 4 will elaborate how the findings of the second case study stimulated a rethinking of the design of the Master’s program. This rethinking resulted in a redesign of the program, focused on strengthening the boundary crossings between university and school, thereby stimulating a stronger external consistency in the learning arrangement that is based on the strategic alignment between the aims of the university and the school. The Master’s program is understood to be a catalyst not only at the level of the participants enrolled in the Master’s program but also for the school as a whole and for the university.

Chapter 5 focuses on this redesigned Master’s program and the extent to which this design strengthened the impact of a Master’s program for teacher leadership. Within the design of this Master’s program, the activity systems of both school and university were connected through various forms of boundary crossing (figure 1.5).
This study examined how the arrangements that aim to support boundary crossing between school and university support teacher leaders in assuming leadership roles within the school and explored the extent to which these roles impact school development.

![Figure 1.5: A design for teacher development in which school and university are connected through boundary crossing: a partnership-centered learning arrangement](image)

Finally, in Chapter 6, conclusions are drawn, connecting the three case studies. Additionally, the implications are discussed for the designs and arrangements of leadership development, for school structures and cultures, for universities, for ministries and for the dynamics between these activity systems.

Although the structure of this book might suggest otherwise, the research study has not been a simple linear and neatly planned process, with the timeline of activities directly reflected in the order of the pages and chapters. The studies that make up this research project have been published over time in international peer-reviewed journals and are closely connected to my involvement in teacher education and in national and European debates on the teaching profession over the past years. Therefore, the research project documented in this book may also be considered a portfolio, documenting a personal learning process. As this learning process extended over several years, it is inevitable and necessary that the progression of studies and published papers reflects this learning process.

The theoretical framework that is presented in this chapter has grown over the years. Starting with a general understanding of teacher development and its impact on schools (Chapter 3), a more elaborate notion of teacher leadership and of transfer of learning between the Master’s program and the workplace was developed (Chapter 4). The last stage of the research process resulted in a clearer understanding of the boundary crossing processes and their
dynamics, which could be included in the final study (Chapter 5). Although these theoretical notions are touched upon in this first chapter, they will be elaborated more extensively in a step-by-step fashion in the following chapters.